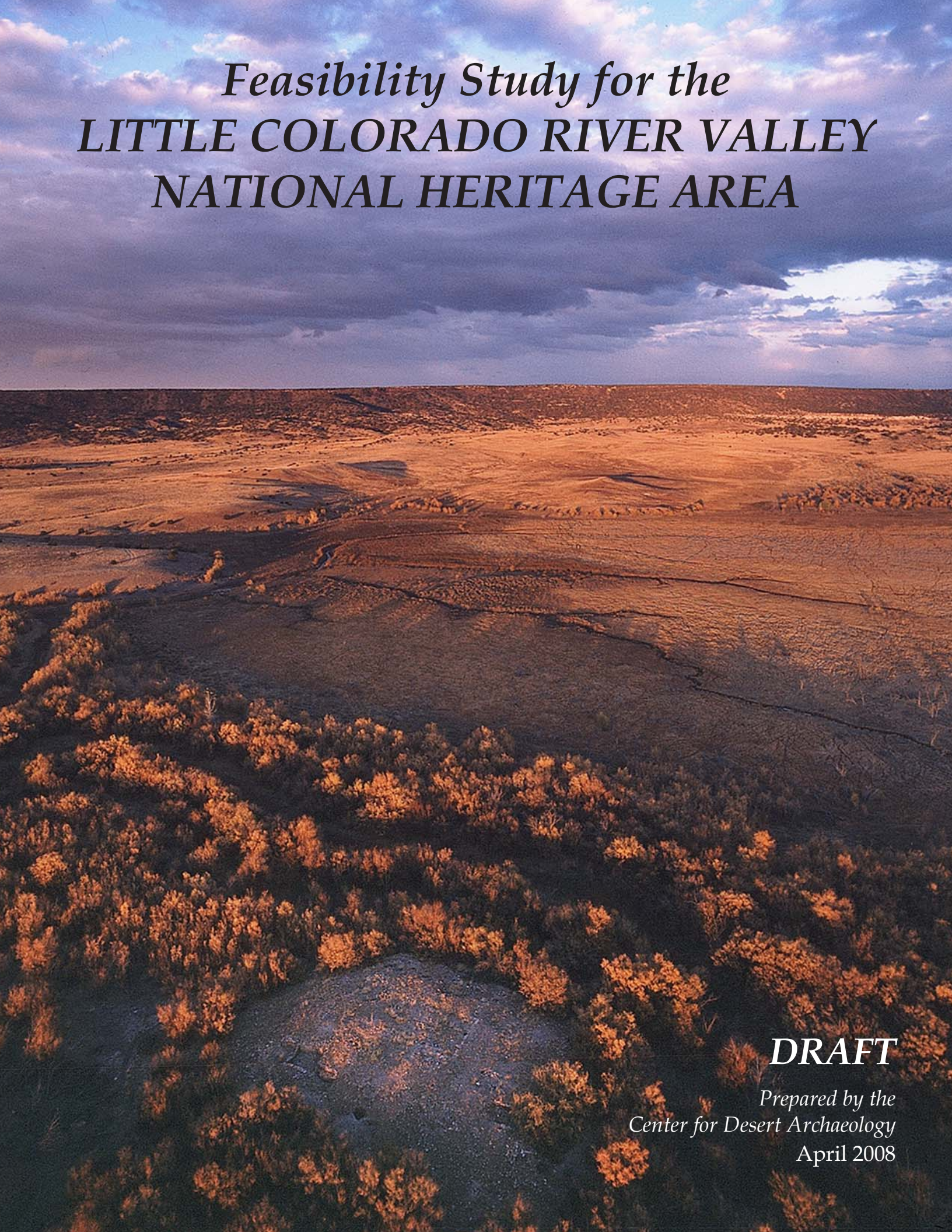
Feasibility Study for the LITTLE COLORADO RIVER VALLEY NATIONAL HERITAGE AREA



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INTRODUCTION

The American Southwest invokes a vivid image in the mind and stirring feeling in the heart, even among those who have never been here. Its land and legends are intricately woven into the fabric of America's past and current culture. The Little Colorado River Valley, a 26,000+ square mile watershed that straddles the northern Arizona and New Mexico border, has witnessed many seminal events in the history of the United States and is home to people whose families lived and traveled in the area for hundreds, and in some cases, thousands of years before the region became an official part of the country. The valley is home to the entire Hopi and Zuni Indian Reservations and the southern portion of the Navajo Nation as well as the descendents of early Hispanic and Mormon immigrants and those who followed in the wake of development after the region was ceded to the United States in 1848 as a result of the Mexican-American War. Rich in history—the Hopi village of Oraibi is one of the oldest, continuously inhabited communities in the present-day United States—the region is alive with some of the oldest traditions of the prehistoric and historic American West. The open landscapes, regional arts, fabled travel routes, and time-honored lifestyles are not just things of the past. They are a vibrant part of the valley's modern-day character and embody aspects of the American identity that modern-day people still like to discover. For these reasons, the designation of the Little Colorado River Valley National Heritage Area would add considerable dimension to the stories already being told by the 37 current National Heritage Areas.

What is a National Heritage Area?

A National Heritage Area is a non-regulatory, federal designation that recognizes the defining landscapes and regional cultural traditions of the United States. The designation helps to preserve nationally important resources through the creation of partnerships among federal, state, and local entities.

> *A "national heritage area" is a place designated by the United States Congress where natural, cultural, historic and recreational resources combine to form a cohesive, nationally-distinctive landscape arising from patterns of*

> *human activity shaped by geography. These areas tell nationally important stories about our nation and are representative of the national experience through both the physical features that remain and the traditions that have evolved within them.* (National Park Service 2008)

National Heritage Areas are different from National Parks and many other types of federally designated lands because designation does not impose additional zoning or regulations on private or public land. Because a National Heritage Area is locally initiated and managed, it is a community-based conservation strategy that recognizes that the people who live in a region are uniquely qualified to preserve its resources.

Local stakeholders manage National Heritage Areas, with planning and interpretation assistance from the National Park Service. Through annual Congressional appropriations, up to $10 million in 50-percent match funding is available to each National Heritage Area over a period of 15 years. This seed money helps cover basic expenses, such as staffing, and also leverages money from state, local, and private sources to implement locally selected projects. A broad spectrum of local stakeholders seeks the designation of a Little Colorado River Valley National Heritage Area based on the resulting long-term benefits to the region. Through voluntary participation and local management, and without affecting property rights, some major benefits to residents and visitors are expected to include the following:

- Development and increase of heritage tourism, and a resulting boost in economic revenues and value of local lifestyles
- Additional source of funding for locally important projects pertaining to cultural education and resource conservation
- Increased ability to effectively network with multiple organizations on a regional scale and pool resources to complete tourism, educational, and conservation projects
- Increased support for local, rural economies
- Expanded opportunities and resources for volunteer stewardship of natural resources and elements of the region's heritage
- Balanced preservation and promotion

BACKGROUND

The following sections of this chapter provide a list of place names that appear throughout the study, a basic description and information about the study area, the study process and a

Table 1.1. Place names of the Little Colorado River watershed.

Name	State	Notes
Counties		
Apache	Arizona	—
Catron	New Mexico	—
Cibola	New Mexico	—
Coconino	Arizona	—
McKinley	New Mexico	—
Navajo	Arizona	—

Name	State	Notes
Cities, Towns, Chapters, and Other Communities		
Cameron Chapter	Arizona	—
Church Rock Chapter	New Mexico	—
Concho	Arizona	—
Eagar	Arizona	—
Erastus (abandoned)	Arizona	Early Mormon settlement
Flagstaff	Arizona	Coconino County Seat
Ft. Defiance	Arizona	—
Gallup	New Mexico	McKinley County Seat
Ganado Chapter	Arizona	—
Holbrook (formerly Horse Head Crossing)	Arizona	Navajo County Seat
Joseph City (formerly Allen's Camp)	Arizona	—
Kykotsmovi	Arizona	Hopi capital
Leupp Chapter	Arizona	—
McGaffey	New Mexico	—
Nahata Dziil Chapter	Arizona	—
Obed (abandoned)	Arizona	Early Mormon settlement
Pine Hill	New Mexico	—
Pinetop-Lakeside	Arizona	—
Polacca	Arizona	Hopi village
Ramah (formerly Savoia)	New Mexico	—
Sanders	Arizona	—
Show Low	Arizona	—
Sipaulovi	Arizona	Hopi village
Snowflake	Arizona	—
Springerville	Arizona	—
St. Johns	Arizona	Apache County Seat
St. Michael's Chapter	Arizona	—
Taylor	Arizona	—
Vernon	Arizona	—
Walpi	Arizona	Hopi village
Window Rock	Arizona	Navajo capital
Winslow (formerly Sunset Crossing)	Arizona	—
Zuni	New Mexico	Zuni capital
Other		
El Morro National Monument	New Mexico	—
Homol'ovi Ruins State Park	Arizona	Puebloan site near Winslow
Lyman Lake State Park	Arizona	Reservoir first created by a Mormon-built dam south of St. Johns. Also a petroglyph and pueblo ruins site.
Mogollon Rim	Arizona	A 200-mile escarpment that runs basically east-west across eastern Arizona to the New Mexico border.
Rio Puerco	Arizona, New Mexico	Major tributary to the Little Colorado flowing from New Mexico to the southwest and meeting the Little Colorado at Holbrook

brief history of the effort to achieve designation, documentation of the scope of public outreach and involvement, and examples of how this study supports concurrent efforts of other organizations in the region related to heritage tourism development, cultural education, and resource conservation goals. The final section describes the preparation of this feasibility study and its contents.

Basic Description of the Study Area: Little Colorado River Valley

The Little Colorado River Valley is a 26,000+ square mile watershed in the American Southwest. With minor alterations, the geophysical boundary of the Little Colorado River's watershed is the boundary used for this feasibility study for designation of a National Heritage Area. The minor alterations are the inclusion of the entire San Francisco Peaks landform (the actual watershed boundary excludes a small portion of the mountain's western slope) and the exclusion of extremely small parcels of the watershed that occur in San Juan County, New Mexico, and on the White Mountain Apache Reservation in Arizona. The eastern boundary of the watershed is formed by the Continental Divide in New Mexico, the southern boundary is formed by the geological feature known as the Mogollon Rim. The western boundary is the San Francisco Peaks and the northern boundary follows the ridge of Black Mesa on the Navajo Nation. Approximately one-fifth of the watershed lies in western New Mexico while four-fifths lie in northeast Arizona. The boundary, being a watershed, does not follow political lines. The proposed Little Colorado River Valley National Heritage Area includes significant portions of Coconino, Navajo, and Apache Counties, Arizona and McKinley, Cibola, and Catron Counties, New Mexico. It includes the entire Hopi Reservation in Arizona and the entire Zuni Reservation in New Mexico and approximately the southern half of the Navajo Nation which spans both states. An accurate population total is difficult to determine due to the irregular border, but, based in part on U.S. Census data, is estimated to be approximately 235,000 or more.

The Little Colorado River begins atop Mt. Baldy in Arizona's White Mountains and is joined by numerous tributaries along its 270+ mile northwesterly course to its confluence with the main Colorado River on the eastern edge of Grand Canyon National Park. The site of the springs that create the river's headwaters is a designated sacred site for the White Mountain Apache Tribe. Into the early 20th century, the Little Colorado flowed year-round and flooded frequently. In today's times, it flows perennially through its upper reaches but is dry throughout much of its course depending on the season and volume of recent rains or snows. The watershed contains the highest point in Arizona, the 12,633 ft. top of Mt. Humphries which is part of the San Francisco Peaks, and drops to an elevation of 2,500 ft. High elevation pine forests are found on and immediately surrounding the San Francisco Peaks, in the White Mountains which follow the Mogollon Rim, and in the Zuni Mountains in New Mexico. The rest of the watershed contains mostly pinyon-juniper forest or high desert grassland.

The region is currently home to two western Pueblo tribes, the Hopi Tribe, the Pueblo of Zuni, and the Navajo Nation. Archaeological studies and

tribal oral histories give evidence of many different people living in the watershed over time beginning approximately 10,000-12,000 years ago. After Europeans came to the Americas, the region became part of northern New Spain. Francisco Vasquez de Coronado traveled through the southeastern corner of the watershed in 1540, encountering Zunis at the pueblo of Hawikku. He continued north and east in a vain search for the Seven Cities of Cibola (also known as the Seven Cities of Gold), which was one of the most compelling, yet erroneous, myths of his time. Don Juan de Oñate also traveled through the southeast corner of the watershed, leaving his famous inscription at El Morro when he undoubtedly stopped for water at the perennial pool at the rock's base. Oñate is credited as being the first governor of what would become New Mexico and also the first to introduce sheep as ranch animals on a large scale. Sheep would forever change Navajo culture. Their legends foretold of the animal's arrival and they fully embraced the raising of sheep, the making of products from its wool, and the incorporation of sheep into their diet and spiritual beliefs. For a time, sheep raising would also become the number one industry for non-Navajos in the region as well. Oñate, however, could be a brutal ruler and he was eventually removed from his post as governor largely due to his horrendous treatment of Native Americans.

Mexico won its independence from Spain in 1821, thereby changing the land from northern New Spain to northern Mexico. The Treaty of Guadalupe Hidalgo, which ended the Mexican-American War in 1848, ceded the region to the United States. It was not until 1863, however, that the formal boundary between present-day Arizona and New Mexico was drawn and both became official U.S. Territories. Both Arizona and New Mexico achieved statehood in 1912, making them the last of the contiguous 48 states to join the union.

Recognition of tribal rights and lands were supposed to be a part of the Treaty of Guadalupe Hidalgo, although the United States did not always honor those rights. In 1864, Kit Carson began a scorched-earth campaign against the Navajos, burning their homes and agricultural fields and killing their livestock to force them off their land. Eventually, all Navajos were rounded up and sent to Fort Sumner (also known as Bosque Redondo) in eastern New Mexico. This journey is referred to as The Long Walk. Approximately 8,000 to 9,000 people started the walk, but between 2,000 and 3,000 died either on the way or during the next four years of imprisonment. The Treaty of 1868 finally established a Navajo reservation and allowed the people to return their homelands. Today, the Navajo Nation extends from northeast Arizona into northwestern New Mexico and southern Utah and is divided politically into 110 chapters, each governed by an elected council. There is also an 88-member Tribal Council and Tribal President. The Navajo capital is in Window Rock, Arizona. The Zunis first signed an agreement with Indian Agent James Calhoun in 1850 in regards to their land and rights but it was not until 1877 that the first portion of the current Zuni Reservation was delineated by Executive Order. Today, the Zuni Tribe has an elected Tribal Council and Governor located in Zuni, New Mexico. The Hopi Reservation was not formally formed until 1882. The Reservation lands are comprised of three main mesas that the Hopi have continuously occupied beginning 1,000 years ago and the Reservation is often

referred to as the Hopi Mesas or the Mesas. From east to west, the mesas are named First Mesa, Second Mesa, and Third Mesa. There are twelve distinct villages on the Mesas, each with their own governing body. The village of Kykotsmovi, Arizona on Third Mesa is the Hopi capital. The Hopi Tribe has an elected Tribal Council and Chairman. The boundaries of all three reservations have changed since their initial designations.

The largest city in the watershed is Flagstaff, Arizona (pop. 58,000) followed by Gallup, New Mexico (pop. 19,000). With few exceptions, most other cities, towns, and communities have populations well below 6,000. The area is rural. Cattle and sheep ranching still occur in many Native and non-Native communities and tourism is a major contributor to local economies.

Study Process and History of Effort to Achieve Designation

The earliest ideas for a Little Colorado River Valley National Heritage Area began along the river itself. The Center for Desert Archaeology (Center), a nonprofit, (501)(c)(3) corporation based in Tucson, Arizona, has worked on archaeological and heritage tourism projects in communities along the Little Colorado River since 2001. Some of the more long-standing and significant projects include working with the Town of Springerville on the ancestral Puebloan site of Casa Malpais, with private landowners on another ancestral Puebloan site now known as Sherwood Ranch Ruin (formerly Raven Ruin), and with the Hopi Tribe on sites within Homol'ovi Ruins State Park outside of Winslow. Individual staff members also worked at Homol'ovi before their employment with the Center for Desert Archaeology.

Late in 2003, local citizen concern for petroglyphs along tributaries to the Little Colorado River near Snowflake brought together representatives from Arizona's State Historic Preservation Office, a land company, town government, the local citizenry, and the Center for Desert Archaeology to discuss ways in which these ancient sites could be protected and preserved while still allowing for public access. A similar meeting focused on Casa Malpais and on preservation of the historic elementary school was held in Springerville at that same time. At both meetings similar concerns were raised about the challenges of protecting important sites, interpreting them for a variety of audiences, and linking the stories of one community to those of neighboring communities throughout the region. The challenge of finding the necessary funding to support these efforts was a central theme of both meetings. Center staff members were aware of the National Heritage Area program and were helping to prepare a feasibility study for the proposed Santa Cruz Valley National Heritage Area. The idea of a Little Colorado River Valley National Heritage Area was raised by Center staff members during these two meetings in 2003. It was one of several approaches to find funding and meet local preservation goals that were discussed.

During the summer of 2004, Center for Desert Archaeology staff members prepared a map that displayed the watershed boundary of the Little Colorado River and highlighted the many communities, National Parks, and tribal nations that were located within the watershed. The map was shared in an informal meeting with several town officials in Springerville, and the concept of a National Heritage Area was discussed. Based on that meeting, the Center's Executive

Director made a presentation to the October 4, 2004, meeting of the Apache and Navajo County Mayor and Council Members Association in Taylor, Arizona. There was a strong and enthusiastic response to the National Heritage Area concept among those present, and the first letter of support was written by the Association's Chair, Jim Boles, on October 18, 2004.

Based on this initial enthusiasm, the Center for Desert Archaeology increased its public outreach efforts. By the summer of 2005, a total of eighteen local organizations and governments had given formal letters or resolutions of support for the project. The work up to this point had been undertaken by a part-time staff member, but the Center knew the tremendous effort required for a full feasibility study would require a full-time position. In the spring of 2006, the Center was awarded a grant from the Arizona State Parks Heritage Fund to support such a position.

The Center hired a Heritage Programs Coordinator within a couple of months and the amount of public outreach, involvement, awareness, and support reached a new level. The proposed National Heritage Area's general guidelines, heritage themes, and lists of related resources (all to be discussed in greater detail in subsequent chapters) were wholly developed by members of the public.

Scope of Public Outreach and Involvement

The Center for Desert Archaeology used a number of methods to reach the public and seek input and support from communities throughout the watershed for the proposed Little Colorado River Valley National Heritage Area. More than 200 information packets were distributed to tribal officials, businesses, civic organizations, local governments, state and federal agencies, individuals, and educational institutions. Center staff also made many informational presentations to local governments and organizations, had information display booths at local events, sent a steady stream of press releases to local media outlets, and sent monthly updates to an ever-growing list of interested people. In addition to these methods of public outreach, the Center held seventy meetings as a means of facilitating public involvement. These efforts resulted in contact with diverse stakeholders throughout the region and a total of 57 formal letters or resolutions of support from businesses, organization, agencies, and local governments all across the proposed Area. The following tables and lists detail these efforts.

Information Presentations

In addition to the presentations specifically about the proposed Little

Table 1.2. Informational presentations given.

Group	Location	Date
Apache and Navajo Counties Mayor and Councilmembers Association	Taylor, Arizona	October 4, 2004
Little Colorado River Watershed Coordinating Council	Holbrook, Arizona	November 2004
Little Colorado River Watershed Coordinating Council Executive Committee	Holbrook, Arizona	March 1, 2005
Springerville Town Council	Springerville, Arizona	March 2, 2005

Group	Location	Date
Apache and Navajo Counties Mayor and Councilmembers Association	Holbrook, Arizona	April 4, 2005
Society for Applied Anthropology Conference	Santa Fe, New Mexico	April 6, 2005
Homolovi Chapter of the AZ Archaeological Society	Winslow, Arizona	April 21, 2005
Hopi Cultural Resources Advisory Team	Kykotsmovi, Arizona	May 19, 2005
Pinetop-Lakeside Town Council	Lakeside, Arizona	May 19, 2005
Winslow City Council	Winslow, Arizona	May 23, 2005
Arizona Statewide Historic Preservation Conference	Tucson, Arizona	June 10, 2005
Holbrook City Council	Holbrook, Arizona	June 14, 2005
Interdisciplinary Team Meeting (Hopi Dept. of Natural Resources)	Kykotsmovi, Arizona	June 20, 2005
Flagstaff City Council work session	Flagstaff, Arizona	July 11, 2005
Navajo County Board of Supervisors	Holbrook, Arizona	July 18, 2005
Little Colorado River Watershed Coordinating Council	Holbrook, Arizona	July 13, 2006
Staff of Congressman Rick Renzi	Flagstaff, Arizona	August 1, 2006
White Mountain Audubon Society	Pinetop, Arizona	November 1, 2006
Dine be iina (a Navajo sheepherders'association)	Tsalie, Arizona	November 4, 2006
Winslow Chamber of Commerce	Winslow, Arizona	November 9, 2006
Diablo Trust (a partnership of two ranches)	Flagstaff, Arizona	November 10, 2006
Gallup Chamber of Commerce	Gallup, New Mexico	November 15, 2006
Local citizens at Inscription Rock Trading Company	Ramah, New Mexico	November 17, 2006
Apache and Navajo Counties Mayor and Councilmembers Association	Taylor, Arizona	January 8, 2007
TRACKS Board (hiking and trail building group)	Lakeside, Arizona	January 8, 2007
Catron County REDTT Council (Rural Economic Development Through Tourism)	Reserve, New Mexico	January 10, 2007
Cibola County REDTT Council (Rural Economic Development Through Tourism)	Grants, New Mexico	January 11, 2007
Coconino Community College Colorado Plateau Studies capstone class	Flagstaff, Arizona	January 17, 2007
St. Johns Regional Chamber of Commerce	St. Johns, Arizona	January 24, 2007
Snowflake-Taylor Chamber of Commerce	Snowflake, Arizona	January 25, 2007
Museum of Northern Arizona docents	Flagstaff, Arizona	February 13, 2007
Friends of Flagstaff's Future	Flagstaff, Arizona	February 28, 2007
Painted Desert Kiwanis Club	Holbrook, Arizona	March 8, 2007
Winslow Historical Society	Winslow, Arizona	March 9, 2007
Snowflake Academy Foundation	Snowflake, Arizona	March 13, 2007
Snowflake Town Council	Snowflake, Arizona	March 13, 2007
Winslow Historic Preservation Commission	Winslow, Arizona	March 28, 2007
Winslow Planning & Zoning Commission	Winslow, Arizona	April 9, 2007
Springerville-Eagar Chamber of Commerce	Springerville, Arizona	April 10, 2007
Eagar Town Council	Eagar, Arizona	April 10, 2007

Group	Location	Date
St. Johns City Council	St. Johns, Arizona	April 12, 2007
Nahata Dziil Chapter planning meeting	Sanders, Arizona	April 13, 2007
Dine be iina (a Navajo sheepherders' association)	Hard Rock, Arizona	April 14, 2007
Navajo Nation Scenic Byway 98 meeting	Page, Arizona	April 19, 2007
Sunnyside Neighborhood Association	Flagstaff, Arizona	May 10, 2007
Heber-Overgaard Chamber of Commerce	Overgaard, Arizona	May 15, 2007
Nahata Dziil Chapter tourism planning meeting	Sanders, Arizona	May 17, 2007
Homolovi Chapter of the AZ Archaeological Society	Winslow, Arizona	May 17, 2007
Arizona Historic Preservation Conference	Prescott, Arizona	June 14, 2007
Nahata Dziil Chapter Meeting	Sanders, Arizona	June 15, 2007
Southside Neighborhood Association	Flagstaff, Arizona	June 21, 2007
Houck Chapter Meeting	Houck, Arizona	July 8, 2007
Lupton Chapter Meeting	Lupton, Arizona	July 12, 2007
Hopi Pre-Commission	Flagstaff, Arizona	August 16, 2007
Coconino Community College Teaching and Learning Conference	Flagstaff, Arizona	August 16, 2007
Sipaulovi Development Corporation	Sipaulovi, Arizona	August 22, 2007
Zuni Tribal Council	Zuni, New Mexico	September 12, 2007
Navajo County Board of Supervisors	Holbrook, Arizona	September 18, 2007
Apache and Navajo Counties Mayor and Councilmembers Association	Winslow, Arizona	October 1, 2007
Northern Arizona Council of Governments	Flagstaff, Arizona	October 25, 2007
Land Team (Hopi)	Kykotsmovi, Arizona	November 21, 2007
Western Navajo Agency	Flagstaff, Arizona	December 15, 2007
Community Service Administrators (Hopi)	Kykotsmovi, Arizona	December 20, 2007
Coppermine Chapter planning meeting	Coppermine, Arizona	January 1, 2008
Little Colorado River Watershed Coordinating Council Winter Conference	Show Low, Arizona	January 31, 2008
Navajo County Farm Bureau	Snowflake, Arizona	February 26, 2008
Coppermine Chapter planning meeting	Coppermine, Arizona	March 4, 2008
Coconino Natural Resource Conservation District	Flagstaff, Arizona	March 10, 2008
St. Johns City Council	St. Johns, Arizona	March 13, 2008

Colorado River Valley National Heritage Area given to area organizations, the Heritage Programs Coordinator attended or participated in more than 20 local events, conferences, and meetings of groups dedicated to promoting heritage tourism, local culture, or resource conservation. This served to inform her about ongoing efforts in the region and to begin to establish relationships and partnerships upon which the future Area can build.

Table 1.3. Information display booth at local events.

Event	Location	Date
Flagstaff Farmers' Market	Flagstaff, Arizona	October 1, 2006
Slide Rock State Park AppleFest	Sedona, Arizona	October 14, 2006

Event	Location	Date
Voices that Beautify the Land Conference	Flagstaff, Arizona	April 27-28, 2007
Ramah Farmers' Market	Ramah, New Mexico	June 9, 2007
Heber-Overgaard 4th of July Celebration	Overgaard, Arizona	June 30 – July 1, 2007
Suvoyuki Day at Homolovi Ruins State Park	Winslow, Arizona	July 7, 2007
Ramah Farmers' Market	Ramah, New Mexico	October 6, 2007
Little Colorado River Watershed Coordinating Council Winter Conference	Show Low, Arizona	January 31 – February 1, 2008

Local Media

The proposed Little Colorado River Valley National Heritage Area was the subject of 30 articles in newspapers throughout the proposed region and the subject of one article in *The Arizona Republic,* the paper of Arizona's capital city of Phoenix. Some of these were the result of press releases sent by the Center for Desert Archaeology and some were a result of reporters responding to public interest in the development of the project. In addition to these public media outlets, a number of articles about the project appeared in several newsletters of private organizations such as the Plateau Sciences Society and White Mountain Audubon Society.

- White Mountain Independent
  Proposed National Heritage Area questions and answers. White Mountain Independent. January 22, 2008. <*www.wmicentral.com/site/news.cfm?newsid=19218490&BRD=2264&PAG=461&dept_id=581751&rfi=6*>

- Hayes, Judy
  Eagar councilor opposes efforts to form national heritage area. White Mountain Independent. January 11, 2008. <*www.wmicentral.com/site/news.cfm?newsid=19188111&BRD=2264&PAG=461&dept_id=506184&rfi=6*>

- White Mountain Independent
  "Very productive" meetings on proposed Little Colorado heritage area. White Mountain Independent. October 19, 2007. <*www.wmicentral.com/site/news.cfm?newsid=18933411&BRD=2264&PAG=461&dept_id=581751&rfi=6*>

- Kor, Linda
  Proposed National Heritage Area Brings Education, Preservation and Concerns. Holbrook Tribune-News. September 21, 2007. <*www.azjournal.com/news/126/ARTICLE/1179/2007-09-21.html*>

- The Winslow Mail
  Little Colorado River Valley National Heritage Area work underway. The Winslow Mail. September 18-24th.

- The Independent
  Heritage Area is proposed for region. The Independent (Gallup, N.M.). September 4, 2007.

- White Mountain Independent
  Designation themes to be reviewed at next Little Colorado River Heritage Area meeting. White Mountain Independent. August 3, 2007. <*www.wmicentral.com/site/index.cfm?newsid=18658078&BRD=2264&PAG=461&dept_id=505965&rfi=8*>

- Gamble, Sara
  The Little Colorado River Valley National Heritage Area. The NOISE. No. 74, pg. 16. July 2007.

- Golier, Linda Marie
  Jackpot! Plans for the Little Colorado River Valley National Heritage Area Moving Full Steam Ahead. Gallup Journey Magazine. Pg. 36-38. July 2007.

- Silver Creek Herald
  Second Round of Meetings Is Slated on Proposed National Heritage Area. Silver Creek Herald. Pg. 7. May 30, 2007.

- The Winslow Mail
  Little Colorado Designation Heating Up This Summer. The Winslow Mail. May 30, 2007.

- Hayes, Judy
  Councilors question impact of heritage designation. White Mountain Independent. May 18, 2007. <*www.wmicentral.com/site/news.cfm &newsid=18356765&BRD=2264&PAG= 461&dept_id=506184&rfi=6*>

- White Mountain Independent
  Little Colorado designation heating up this summer. White Mountain Independent. May 4, 2007. <*www.wmicentral.com/site/index.cfm &newsid=18298494&BRD=2264&PAG= 461&dept_id=505965&rfi=8*>

- Hayes, Judy
  Group seeks designation for Little Colorado River area. White Mountain Independent. April 13, 2007. <*www.wmicentral.com/site/index.cfm& newsid=18203823&BRD=2264&PAG= 461&dept_id=505965&rfi=8*>

- Gray-Searles, Tammy
  Area Residents Offer Input Toward National Heritage Area Designation. Holbrook Tribune-News. March 30, 2007. <*www.azjournal.com/pages/news/2007/ March%202007/033007Heritage Mtg.html*>

- Hatch, Naomi
  Area Citizens Area Asked to Support Creation Of National Heritage Area. Silver Creek Herald. March 28, 2007. <*www.azjournal.com/pages/news/2007/ March%202007/032807Heritage. html*>

- Gray-Searles, Tammy
  National Heritage Area Designation May Be Sought for Our Watershed. Holbrook Tribune-News. March 21, 2007.

- The Pioneer
  White Mountains River Valley Receives National Recognition. The Pioneer (Snowflake, Ariz.). February 21, 2007.

- Golier, Linda Marie
  Public input sought on heritage area. The Independent (Gallup, N.M.). February 19, 2007.

- White Mountain Independent
  Your Chance to Bring National Recognition to the White Mountains: meeting Feb. 26. White Mountain Independent. February 13, 2007. <*www.wmicentral.com/site/news.cfm? newsid=17842309*>

- Pine Graphics Weekly
  Your Chance to Bring National Recognition to the White Mountains. Pine Graphics Weekly. February 9-15, 2007.

- Bianchini, John
  Restoration and Heritage protection sought for Little Colorado River area. The Winslow Mail. July 19, 2006.
  <*www.winslowaznews.com/main.asp?Search=1&ArticleID=3311&SectionID=3&SubSectionID=3&S=1*>

- Lucas, Robert
  Archaeologists Seek Federal Funds for Little Colorado River Heritage Area. The Pioneer (Snowflake, Ariz.). December 14, 2005.

- Buckles, Christyl
  Supervisors Join Growing List of Supporters. Holbrook Tribune-News. July 22, 2005.
  <*www.azjournal.com/pages/news/2005/July05/072205heritagesupport.html* >

- Associated Press
  Heritage area label proposed. The Arizona Republic. July 16, 2005.

- Peterson, Rachel
  Zoo Club meets Wupatki. Arizona Daily Sun. July 15, 2005.
  <*www.azdailysun.com/articles/2005/07/15/import-111937.txt*>

- Buckles, Christyl
  Citizens' Support is Sought for Proposed LCRV Heritage Area. Holbrook Tribune-News. July 8, 2005
  <*www.azjournal.com/pages/news/July05/070805LCRV.html*>

- Reyes, Mara
  Group looks to designate Little Colorado Heritage Area. White Mountain Independent. July 5, 2005.

- Buckles, Christyl
  Holbrook Council Support Sought for Proposed LCRV Heritage Area. Holbrook Tribune-News. June 17, 2005.
  <*www.azjournal.com/pages/news/June05/061705LCRHVA.html*>

- Pope, Jeff
  Protecting and profiting from history. The Winslow Mail. May 12, 2005.
  <*www.winslowaznews.com/main.asp?Search=1&ArticleID=2&SectionID=3&SubSection1D=3&S=1*>

Monthly Updates

The Center for Desert Archaeology realized that relying solely on public media outlets was not enough to keep people across such a large area adequately informed. The part-time staff member started a monthly newsletter update in March 2005 and sent three issues via email until her departure for an academic position out of state. The full-time Heritage Programs Coordinator renewed the monthly updates beginning in August 2006 and also made them available in hard copy for those who did not have access to the Internet. The list of those receiving the updates, via email or regular mail, grew every month and by February 2008 exceeded 650. All monthly updates were kept posted on the Center's website for continued public access.

Community Working Group Meetings

In addition to these information dissemination methods, the Heritage Programs Coordinator of the Center for Desert Archaeology also held numerous community Working Group meetings. Working Group meetings were informational—the basic concept of the National Heritage Area was explained at each meeting and progress reports were given—but the main purpose of the Working Groups were to elicit public input for the development of this feasibility study and the National Heritage Area as a whole. To more effectively engage the most number of people possible, a

series of four Working Group meetings were held in each of five locations across the proposed Area: Flagstaff, Gallup, Ramah, the White Mountains, and the Winslow/Holbrook region. Meeting sites were alternated between two communities in the White Mountains and in the Winslow/ Holbrook region to equalize driving distances for the people who participated. A description of what occurred at each round of meetings is given below along with date it occurred in the five locations. A total of more than 140 people participated.

Meeting One

Activity: Participants defined what they liked and disliked about their communities now and defined what they did and did not want for their communities in the future.

Purpose: These expressed likes and dislikes of the public became the foundations of general guidelines for the proposed Area. When the future Area is awarding grants, embarking on projects, or setting goals, it will use these guidelines to help evaluate how well a particular project will encourage the type of community the public desires.

Dates and Locations:
Flagstaff [November 30, 2006]
Gallup [February 22, 2007]
Ramah [February 23, 2007]
White Mountains (Lakeside) [February 26, 2007]
Winslow/Holbrook (Holbrook) [March 22, 2007]

Meeting Two

Activity: Participants used maps of the watershed to identify key sites, activities, and places of historical and cultural importance.

Purpose: After evaluating the many locations identified and reflecting on the varied meanings associated with those locations, participants developed a list of heritage themes that reflected the diversity and unity of the Little Colorado River watershed as a whole. The heritage themes developed by all five Working Group locations led directly to the seven heritage themes presented in this feasibility study.

Dates and Locations:
Flagstaff [March 29, 2007]
Gallup [May 3, 2007]
White Mountains (Lakeside) [May 9, 2007]
Winslow/Holbrook (Winslow) [June 7, 2007]
Ramah [June 8, 2007]

Meeting Three

Activity: With the seven heritage themes established, participants wrote down all activities, sites, organizations, businesses, festivals, historical events, and other resources that expressed some aspect of a particular theme.

Purpose: The list of resources developed for each heritage theme became the foundation for the resource lists that appear with each theme in this study. The lists also informed the contributing writers of resources throughout the watershed of which they may not have been personally aware. These lists will also serve as a database of potential future partners for the proposed Area.

Dates and Locations:
White Mountains (Springerville) [August 23, 2007]
Gallup [September 6, 2007]
Ramah [September 7, 2007]
Flagstaff [September 13, 2007]
Winslow/Holbrook (Holbrook) [September 20, 2007]

Meeting Four

Activity: The first draft of this feasibility study was made available for public review.

Purpose: Participants could give comments and ask questions about the study. Suggestions received during the public comment period have been incorporated into this final version of the feasibility study.

Dates and Locations
Flagstaff [March 26, 2008]
Winslow/Holbrook (Winslow) [April 9, 2008]
Snowflake [April 10, 2008]
White Mountains (Springerville) [April 16, 2008]
Gallup [April 17, 2008]
Ramah [April 18, 2008]

Formal Letters of Resolutions of Local Support

The following is a list of the 57 individuals, organizations, agencies, businesses, or governments that gave formal letters or resolutions of support for the proposed Little Colorado River Valley National Heritage Area. Many participated fully in the Working Group meetings and gave significant input towards the development of the proposed Area. (To view copies of the actual documents, see Appendix X.)

- Apache & Navajo Counties Mayors & Council Members Association
- Babbitt Ranches
- Center for Sustainable Environments
- City of Gallup
- City of Holbrook
- City of Show Low
- City of Winslow
- Coconino County Cooperative Extension
- Colorado Plateau Studies Program at Coconino Community College
- County of McKinley
- Deighton, Natasha
- El Morro Area Arts Council
- El Morro and El Malpais National Monuments
- Flagstaff Chapter of the Arizona Native Plant Society
- Gallup/McKinley County Chamber of Commerce
- Heber-Overgaard Chamber of Commerce
- Historic Route 66 Association of Arizona
- Holbrook Chamber of Commerce
- Holbrook Painted Desert Kiwanis Club
- Homolovi Chapter of the Arizona Archaeological Society
- Houck Chapter
- Hubbell Trading Post National Historic Site
- Jeffers Cattle Co., Inc.
- La Posada Hotel
- Little Colorado River Chapter of the Arizona Archaeological Society
- Little Colorado River Plateau Resource, Conservation, and Development Area
- Little Colorado River Watershed Coordinating Council
- Lupton Chapter
- Museum of Northern Arizona
- Nahata Dziil Chapter
- Navajo County Board of Supervisors
- Navajo Tourism Department
- New Mexico and Arizona Land Company
- New Mexico Historic Preservation Division
- Northern Arizona University
- Old Trails Museum (Winslow Historical Society)
- Petrified Forest National Park
- Pinetop-Lakeside Chamber of Commerce
- Plateau Sciences Society
- Program in Community, Culture, and Environment Show Low Historical Society
- Show Low Main Street

- Snowflake Academy Foundation
- Snowflake Heritage Foundation
- Southwest Indian Foundation Gallup Cultural Ctr.
- Southwest Sustainable Forests Partnership
- St. Johns Chamber of Commerce
- Swift, Marguerite
- The Archaeological Conservancy
- The Field Museum, Chicago
- Town of Pinetop-Lakeside
- Town of Snowflake
- Town of Springerville
- Town of Taylor
- TRACKS
- Winslow Chamber of Commerce
- Winter Sun Trading Company and Arizona Ethnobotanical Research Association

Supporting Concurrent Efforts of Other Organizations

Many communities in the Little Colorado River Valley recognize that tourism is a major portion of their income and a number of communities are actively planning for further tourism development. Educational and resource conservation efforts are also underway in a variety of ways throughout the watershed. The following is a partial but representative list of current initiatives by the National Park Service, local governments, and private organizations that promote heritage tourism, heritage education, or resource conservation.

- **Ancient Way Fall Festival:** This is a coordinated effort by residents, business owners, non-profits, the National Park Service, and the Zuni and Acoma Tribes all of whom live on or in the vicinity of Route 53 in New Mexico. 2007 was the eighth year of the Festival, which included a cycling race, evening hikes at El Morro National Monument featuring a Zuni interpreter and musician, a Zuni Fall Festival and Arts Market that also featured traditional dances, an archaeology fair, outdoor barbeques, and more.

- **Arizona Game and Fish:** Since 1973, the Department has been managing Becker Lake in Springerville as a trout fishery. In 2002, the Department purchased 291 acres next to Becker Lake to increase riparian habitat along the Little Colorado River for species of special concern and ongoing development of the site is occurring. Recent recreational development includes visitor restrooms, a boat ramp, two hiking trails, and a bird blind. Stream restoration has also occurred. Management goals include providing the public with quality trout fishing and wildlife observing experiences.

- **A:shiwi A:wan Museum and Heritage Center:** This museum in Zuni has been working with local schools to develop a gardening program to teach youth the traditional methods and crops of Zuni and also to promote healthier lifestyles based on Zuni culture.

- **City of Gallup**

- **Coconino County:** The County embarked on a comprehensive Sustainable Economic Development Initiative in 2006. One of the five original Action Teams of this Initiative is devoted to sustainable tourism development.

- **Hopi village of Moenkopi and Navajo Chapter of Shonto:** Both communities are midway through plans to develop multi-faceted travel centers that will include the necessary gas stations and

convenience stores, but also cultural museums and vendor villages where local craftspeople can market their wares directly to tourists.

- **Hopi village of Sipaulovi:** Sipaulovi held its first annual arts and crafts fair, featuring the work of local craftspeople, in July 2007. The Sipaulovi Development Corporation recently hired a staff member dedicated to tourism development for the village and the larger reservation and northeast Arizona region. Plans include walking tours of Sipaulovi, business and hospitality training, and an artists' booklet and market.

- **Navajo Chapter of Leupp:** The Leupp Family Farms is an initiative of 40 families to grow traditional crops by traditional methods, thus leading to a healthier diet and lifestyle and the passing of traditional knowledge to the next generation.

- **Petrified Forest National Park:** Petrified Forest recently restored the Painted Desert Inn and updated numerous interpretive signs along current trails. An expansion of the Park was approved by Congress in 2005, thereby increasing the Park's ability to protect more resources related to the land and presenting new opportunities to study and interpret the landscape.

- **Trail of Many Tracks:** The Trail of Many Tracks is a narrated CD tour of the southern portion of the watershed from Sanders, Arizona to Zuni, New Mexico, through the White Mountains, and ending in Winslow, Arizona. The organization that developed the CD is actively seeking more effective means of marketing and distribution.

Preparation of the Feasibility Study

This feasibility study is the result of more than two years of intensive collaboration for the express purpose of completing the study and of many prior years of partnership and cooperation among individuals, communities, and local organizations for the purpose of honoring the special heritage of this region. The Heritage Programs Coordinator of the Center for Desert Archaeology coordinated the development of the study, but many individuals and local organizations and governments supported the effort with their time, energy, resources, and knowledge.

In addition to Center staff, five writers were asked to contribute to this study. All five live within the proposed Area. Four have extensive backgrounds in particular heritage themes identified by Working Group participants as significant to this region and one has more than 20 years experience in the tourism industry. All five writers incorporated information given by the public during Working Group meetings into their drafts. The first full draft of the entire study was distributed for review and comment during a final round of Working Group meetings. Comments received during this review process were incorporated into this study as appropriate. (For a list of comments received, see Appendix X.)

This study describes the basic concept of a Little Colorado River Valley National Heritage Area. The study describes the underlying principles of the proposed Area and proposes a conceptual financial plan and general guidelines for a future management entity in Chapter 2, describes the Colorado River Valley's heritage through a set of seven themes in

Chapter 3, and evaluates the significant contributions of the region in accordance with National Heritage Area nationally distinctive criteria in Chapter 4. Chapter 5 identifies the natural and cultural resources currently available in the region and anticipates how they may be affected by designation. Chapter 6 shows the potential for further development of heritage tourism in the Little Colorado region and Chapter 7 discusses management alternatives and their anticipated impacts. Appendices include copies of all letters or resolutions of support, draft legislation for the proposed Area, public comments about the feasibility study, and two pertinent National Park Service documents.

Description of The Center for Desert Archaeology

- Arizona nonprofit corporation founded in 1989; the Center received its 501(c)(3) tax-exempt letter from the Internal Revenue Service in 1991
- Served as coordinator and financial administrator of the effort to develop this Feasibility Study
- Obtained funds for preparation of the Feasibility Study, supporting materials, and public outreach from the Arizona State Parks Heritage Fund
- Works throughout the Greater Southwest to conduct community-based, preservation archaeology
- The Center will relegate coordination and financial management roles to the Little Colorado Heritage Partnership, Inc., upon completion of this Feasibility Study
- The Center may participate as a member of an advisory board for the Little Colorado River Valley National Heritage Area in the future
- The Center is likely to contribute information to the future National Heritage Area and work with it as a partner

chapter 2

proposed concept

The 37 current National Heritage Areas, while similar in many respects, differ considerably in their focus, project goals, common partnerships, and management according to the needs and resources of their respective communities. It is important that local residents and communities, as well as officials of the National Park Service and members of Congress, understand the specifics of what is being proposed for the Little Colorado River Valley National Heritage Area. This chapter will discuss the underlying principles of the proposed Area, explain the development and intended application of general guidelines for future grant awards and projects, describe long-term goals, and describe the future management entity and a conceptual financial plan for the proposed Area. The watershed concept for the boundary is also explained.

PRINCIPLES

The National Heritage Area program of the National Park Service is based on innovative differences from other types of federal land designations for the purpose of resource conservation. Rather than being top-down, mandatory, and involving land set-asides or use restrictions, this type of designation is based on grass roots organization, voluntary preservation, and does not involve property or land-use regulation. The concept of a Little Colorado River Valley National Heritage Area is based on the following common principles of National Heritage Areas: heritage education, voluntary preservation, security of property rights, local management.

Heritage Education

A deeper understanding and appreciation of the region's cultural and natural legacy can be achieved, in part, through heritage education. In addition to nurturing a sense of continuity and connection with historical and cultural experiences, heritage education instills a stronger "sense of place," and encourages residents to consider their past in planning for the future. In a National Heritage Area, heritage education fosters a stewardship ethic that leads to community-based, voluntary resource preservation.

Voluntary Preservation

A fundamental principle of the National Heritage Area concept is that conservation efforts are most successful when the people who live in and around heritage resources and who carry on cultural traditions are the primary people identifying the priorities of their particular community and initiating preservation actions voluntarily. Participation by private property owners or practitioners of traditional lifestyles is always voluntary. The primary function of a National Heritage Area is to provide assistance to communities, groups, landowners, and other stakeholders to help them achieve their goals of resource and lifestyle preservation, promotion, and interpretation. Priorities are identified through an active public process.

Security of Property Rights

The National Heritage Area concept recognizes the importance of private lands, and that property owners are the primary planners of land use. Designation does not affect private property rights, property taxes, zoning, or the right to renovate or remove existing buildings on private property. Like other National Heritage Areas, specific language is included in the draft legislation for the proposed Little Colorado River Valley National Heritage Area (see Appendix X) stating that the Area will have no regulatory authority and it will be precluded from using federal funding to acquire real property or an interest in real property. Statements regarding the Area's lack of effect on private property rights and public land-use regulations will also be included in the future management plan. Important points on this issue include the following:

- National Heritage Areas are not National Parks and are not considered units of the National Park Service and therefore have no regulatory authority
- Most National Heritage Area legislation prohibits the use of the designation to change zoning or other land-use regulations and these provisions are included in the draft legislation for the Little Colorado River Valley National Heritage Area
- Property owners within a National Heritage Area are not required to permit public or government access to their lands
- The designation of a National Heritage Areas has no effect to either strengthen or weaken any type of regulation either prohibiting or allowing the demolishing of old buildings on private properties, selling or subdividing properties, or from developing properties
- National Heritage Areas do not increase liability for a property owner in the event someone is injured on their property
- National Heritage Areas do not add additional regulations to the public lands permitting process for grazing, logging, hunting, or other purposes
- National Heritage Areas do not restrict or limit a tribe from protecting cultural or religious sites on tribal lands

Local Management

The Little Colorado River Valley National Heritage Area will adhere to the National Park Service requirement that it be managed by a local entity with broad representation from the region. The primary goal of the organization that will manage the

proposed Area will be to achieve a balanced diversity in terms of geography, cultural background, and professional background and interest for its board members, staff members, and any advisory groups or committees. Ideally, the board of the management entity will have representatives from each of the six counties and three tribes. Other sub-sectors of the general population to include would be representatives of state, local, and tribal governments, the ranching and agricultural community, the arts community, historic preservation and environmental conservation interests, education, and tourism businesses such as lodging, restaurants, and attractions.

GENERAL GUIDELINES

During the first round of community Working Group meetings, participants were asked four questions:

(1) What do you like about your community now?
(2) What do you dislike about your community now?
(3) What do you want for your community in the future?
(4) What do you not want for your community in the future?

Each participant wrote as many responses to each of these questions as they wanted, each on a separate piece of paper. Then, all of the papers expressing "likes" for the current community were grouped together, then all of the papers expressing "dislikes" for the current community were grouped together, and so on. Participants were then divided into four smaller groups and asked to group the total number of responses for one of the four questions into categories. This exercise took place at five meetings in five different locations across the watershed, resulting in a total number of 76 categories of responses for the four questions. Most categories were unique to particular Working Groups in particular locations, but seventeen categories were repeated two or more times across the five meeting locations. Those categories that appeared two or more times were deemed to be representative of common sentiments shared by communities throughout the watershed. The categorized responses to the four original questions provide a solid framework to which the future management entity can refer when making decisions about the grant awards, projects, and the future direction of the proposed Area. For example, future staff and board members can ask, "Is the project described in this grant application likely to support what people like about their community currently or want for the future, or does it address some issue that they currently do not like or do not want for the future?" The categorized responses that appeared two or more times during the course of five meetings and have now become general guidelines for the future Area are as follows:

(1) *What do you like about your community now?*
- Outdoor activities and recreation
- Beautiful landscapes
- Cultural heritage and diversity
- Rural and small town atmosphere
- Sense of community

(2) *What do you not like about your community now?*
- Uncontrolled growth
- Destruction of environment
- Drugs and crime
- Lack of jobs and economic opportunities

(3) *What do you want for your community in the future?*
- Trails and parks
- Facilities/infrastructure
- Environmental planning and protection

(4) *What do you not want for your community in the future?*
- Unmanaged/uncontrolled growth
- Chain stores
- Destruction of natural resources
- Pollution
- Social ills (intolerance; loss of community, diversity, or heritage)

GOALS

Building upon these principles and general guidelines, establishment of a Little Colorado River Valley National Heritage Area can support the care and promotion of heritage and nature resources in accordance with community wishes without affecting property rights. A local management entity with broad representation of the region's stakeholders will select and assist voluntary efforts to preserve, restore, and interpret the heritage and nature resources that make this region unique. Opportunities for partnerships and funding for these activities will also increase. The National Heritage Area will coordinate these activities in accordance with the nationally distinctive heritage themes explained in Chapter 3.

Goal 1: Development and Increase of Heritage Tourism, and a Resulting Boost in Economic Revenues and Value of Local Lifestyles

A National Heritage Area designation for the Little Colorado River Valley will increase local, national, and international recognition of its unique historic treasures, cultural traditions, scenic landscapes, diverse wildlife, and other heritage and nature resources. This increased awareness will result in the desire for more people to travel to the region to explore and learn for themselves. The increased awareness will also raise the perceived value of those resources among local residents, which will, in turn, create a greater sense of pride among residents for their community. The flight of the younger generation from rural places to urban centers is a well-documented pattern in modern society. The move is often for the economic opportunities larger cities offer. With a boost in revenue from tourism, more jobs will be available in local communities. Because heritage tourism is based on resource preservation rather than resource extraction, this type of economic development is sustainable, long term, and will also benefit future generations of residents. Heritage tourism also focuses on the authentic realities of a particular place, and therefore the host community does not need to change itself and its character to accommodate tourist expectations.

GOAL 2: Additional Source of Funding for Locally Important Projects Pertaining to Cultural Education and Resource Conservation

Rural communities, with their smaller populations, cannot compete for grants as well as larger communities can. They have fewer people with expert skills in a specific discipline to consult on a grant application and they have fewer local residents with substantial wealth to make philanthropic gifts to the community. Yet, their cultural education and resource conservation

needs are the same as those who live in larger cities. With approximately 65% of the population of the Little Colorado River Valley living in rural communities of less than 20,000 people, and the vast majority of those living in communities below 6,000 people, the opportunity to distribute financial resources to rural regions is guaranteed. Since the federal funds of the Little Colorado River Valley National Heritage Area will be available only to communities in the watershed, the rural communities will have a more equal chance of obtaining these funds without the competition from large urban centers. Designation as a National Heritage Area will make the region eligible for 50-percent match funding of up to $1 million annually over a period of 15 years. This federal seed money has proven to be an important catalyst for raising other funds for local projects.

GOAL 3: Increased Ability to Effectively Network with Multiple Organizations on a Regional Scale and Pool Resources to Complete Tourism, Educational, and Conservation Projects

The Little Colorado River Valley is large, yet it is connected by geography, history, and culture. The efforts of one community are returned many times over when neighboring communities also participate. For example, the invasive species tamarisk chokes the river banks. It prevents native willows and cottonwoods from growing and, subsequently, deprives native birds and animals of suitable habitat and food. Tamarisk also requires much more water than native vegetation, thereby over-tapping an already limited resource in the West. If one community removes the tamarisk from their jurisdiction a small improvement is realized, but if multiple communities remove tamarisk the effect is many times greater. Likewise with tourism, one small community might be able to attract a tourist for a few days. But if neighboring communities work together, the tourist might stay in the region a full week or more. The money the tourist spends stays within the region and benefits more local businesses. Most chambers of commerce and tourism promotion organizations in the Little Colorado River Valley already cross-promote to a certain degree, but their scopes do not include the entire watershed. The National Heritage Area will have the unique focus of the entire watershed and be well-positioned to link communities with similar goals or corresponding resources and needs together to complete projects more effectively. National Heritage Areas also work with all sectors of a community—government, private businesses of all types, civic organizations, state and federal agencies, and educational institutions—and are therefore able to facilitate partnerships among groups that may not usually work together.

GOAL 4: Increased Support for Local, Rural Economies

The last decades of the 20th century were a time of great change for rural communities. The traditional economies of agriculture, logging, and mining upon which most rural economies were built declined severely and, in some cases, collapsed completely. Towns have been looking for alternatives ever since. Tourism is certainly one option for rural communities and the National Heritage Area's role in that industry has already been explained in Goals 1 and 3. A number of existing National Heritage

Areas have focused on downtown and local economy revitalization whether it pertains to tourism or not. Examples include the Delaware and Lehigh National Heritage Corridor's Market Towns Initiative, the Path of Progress National Heritage Route's Progress Fund, and Wheeling National Heritage Area's Adaptive Reuse Study, and this is a goal the proposed Little Colorado River Valley National Heritage Area can pursue as well. Often the restoration of natural and cultural resources results in jobs during the restoration and continued jobs once the resource has been rehabilitated. When historic buildings are renovated, new business often move in creating jobs and increasing the overall economic stability of the community.

GOAL 5: Expanded Opportunities and Resources for Volunteer Stewardship of Natural Resources and Elements of the Region's Heritage

Public lands in the Little Colorado River Valley contain many incredible natural resources and sites of cultural importance, but they do not contain them all. Significant archaeological sites, historic structures, places of cultural importance, and unique wildlife habitats, to say nothing of continuous open space, cross into private lands as well. Often families want to preserve and protect the landscape they have grown to love for the benefit of the community and for future generations. Sometimes private property owners are willing to allow public access to particular resources such as trails along river banks or archaeological sites. Yet, they may not know how to do so or where to turn for advice and, equally importantly, funding. The National Heritage Area can address such needs by offering technical assistance for the preservation of particular resources and providing funding for related costs.

GOAL 6: Balanced Preservation and Promotion

While a National Heritage Area can help develop tourism facilities in locations that want them, it can also aid efforts to restore and protect sensitive places. Communities that do not want higher numbers of visitors may choose not to be promoted even though the National Heritage Area may still work with such communities on educational or resource conservation projects. Applicants for tourism development grants will be required to show broad community support to receive assistance. Some of the economic benefits of a National Heritage Area designation can be invested in minimizing tourism impacts on the very resources that attract visitors, and they can also be used to protect places with sensitive cultural meaning or fragile resources that need limited or restricted visitation.

FUTURE LOCAL COORDINATING ENTITY AND CONCEPTUAL FINANCIAL PLAN

The management entities of existing National Heritage Areas can be categorized into several types. The following comparisons are based on information obtained about the organizational structures of 15 of the 27 National Heritage Areas designated before 2006. In this sample, there are four types of management entities: (1) federally appointed commissions; (2) locally appointed commissions; (3) departments of public universities; and (4) nonprofit corporations. In all of these types of management entities,

representatives of the National Park Service serve in non-voting (ex officio), advisory roles.

Federally Appointed Commissions

Several existing National Heritage Areas are managed by federally appointed commissions. Their operations are administrated by National Park Service staff and some operate under management plans prepared by the National Park Service. The number of commissioners for these management entities is usually between 15 and 30. Commission appointments are usually based on recommendations by Congressional delegations, and are designed to ensure representation of local municipalities, state agencies, business interests, economic development, tourism, historic preservation, outdoor recreation, and private landowners. Some of these commissions have formed nonprofit, 501(c)(3) corporations to build partnerships and to guide programs.

Examples

Blackstone Valley National Historic Corridor (Massachusetts and Rhode Island)

- Designated in 1986, second National Heritage Area in the country
- Managed by a 19-member, bi-state, federally appointed commission
- National Park Service staff administers operations and implements interpretive Programs

Cache La Poudre River Corridor (Colorado)

- Designated in 1996
- Managed by a federally appointed commission
- "To guide programs," commission designees formed a nonprofit, with 12 board members representing local governments, agricultural interests, and a state water conservation district

Cane River National Heritage Area (Louisiana)

- Designated in 1994
- Managed by a federally appointed commission, with 19 members representing municipalities, the state, business/tourism, preservation, hunting, river use, cultural heritage, and private landowners

Erie Canalway National Heritage Corridor (New York)

- Designated in 2000
- Managed by a federally appointed, 27-member commission, with appointments based on recommendations by the governor and the region's Congressional delegation

Essex National Heritage Area (Massachusetts)

- Designated in 1996
- Managed by an 85-member, federally appointed commission representing municipalities, business, tourism, preservation, education, and environmental interests (26 additional members are state and federal legislators serving ex officio)
- An 18-member board of trustees represents local chambers of commerce, economic development, conventions/ tourism, colleges, arts, nature conservation, museums, historic preservation, and private corporations
- A 23-member executive committee oversees operations

Locally Appointed Commissions

Both National Heritage Areas that fall into this category have state appointed or certified management organizations whose members represent a diverse group of local interests.

Examples

Lackawanna Heritage Valley State and National Heritage Area (Pennsylvania)

- Designated in 2000
- Managed by a county-appointed commission with a 6-member board of directors representing the county, colleges, business, heritage destinations, historic preservation, economic development, and residents
- Advised and assisted by several committees: Lackawanna Heritage Valley Roundtable (heritage attractions, tourism, preservation), Lackawanna River Heritage Trail Management Committee (parks, recreation, business, boroughs, citizens), Education Alliance (no information)

National Coal Heritage Area (West Virginia)

- Designated in 1996
- Currently developing management plan
- Management plan recommends that the National Coal Heritage Area be managed by a state-appointed commission in partnership with a new nonprofit representing various interests; some members would overlap

Departments of Public Universities

One existing National Heritage Area is managed by a department of a public university. The department is tax exempt, and funds are managed by the university foundation.

Example

Tennessee Civil War National Heritage Area (Tennessee)

- Designated in 1996
- Operations administrated by staff of the Center for Historic Preservation at Middle Tennessee State University (MTSU), a university department which also serves as the clearinghouse for federal funding; center funds are administrated and invested by the MTSU Foundation
- Center is advised by a 25-member Board of Advisors representing the state, counties, preservation, nature conservation, heritage destinations, and tourism. Board members are appointed based on recommendations from the governor, state tourism agency, and State Historic Preservation Office (SHPO)
- A 4-member executive council of the Board of Advisors includes representatives of the governor, state tourism agency, SHPO, and the Center for Historic Preservation

Nonprofit Corporations

The most common management entities are nonprofit corporations with 501(c)(3) status with the Internal Revenue Service. These usually operate as public charities rather than private foundations [the two types of 501(c)(3) organizations] because: (1) they receive substantial portions of their funding from governmental units, publicly supported organizations, and the general public; and (2) they receive more than one-third of their financial

support from contributions, membership fees, and gross receipts from activities related to their tax-exempt functions, and normally receive less than one-third of their funding from investments. These nonprofits typically have boards of directors (or boards of trustees) of twelve to sixteen members, with executive committees of five and seven members, that oversee operations. Interests represented by board members often include counties, municipalities, state agencies, tourism, economic development, historic preservation, nature conservation, and residents. Board members usually participate in several planning committees. These nonprofits are usually assisted by advisory commissions, councils, or committees with broad representation of local interest groups, including counties, municipalities, tribes, state agencies, businesses, economic development, education, tourism, heritage attractions, arts, historic preservation, nature conservation, outdoor recreation, and private landowners.

Examples

Ohio & Erie Canalway National Heritage Corridor (Ohio)
- Designated in 1996
- Managed by a nonprofit, 501(c)(3) corporation with a 15-member board of directors representing four counties, city planning departments, parks, economic development, and tourism (National Park Service ex officio)
- A 5-member executive committee oversees operations
- Management entity partners with two other nonprofits on programs
- Assisted by several advisory committees with broad representation of local interest groups

Path of Progress National Heritage Tour Route (Pennsylvania)
- Designated in 1988
- Originally managed by a 21-member federally appointed commission
- Supporting legislation renewed in 1998
- Federally appointed commission now serves as the funding entity
- Now managed by a nonprofit 501(c)(3) corporation with a 6-member board of directors
- Nonprofit management entity also has a for-profit arm

Quinebag and Shetucket River Valleys National Heritage Corridor (Connecticut and Massachusetts)
- Designated in 1994
- Managed by private, nonprofit 501(c)(3) corporation with a 16-member board representing local organizations and state officials
- Board members elected annually by membership
- Members participate in five planning committees
- Partners include the National Park Service, Connecticut Humanities Council, state historic commissions, state environmental protection and transportation agencies, and local economic development organizations
- Has several active committees with broad citizen participation

Shenandoah Valley Battlefields National Historic District (NHA) (Virginia)
- Designated in 1996
- Originally managed by a federally appointed commission
- Now managed by a nonprofit, 501(c)(3) corporation with a 23-member board of trustees representing varied interests, including the state, counties,

municipalities, other nonprofits, and residents
- The nonprofit has the authority to provide federal funding to help local groups acquire Civil War sites; the only National Heritage Area with such authority

Silos and Smokestacks National Heritage Area (Iowa)
- Designated in 1996
- Managed by a nonprofit, 501(c)(3) corporation with a 12-member board of trustees representing municipalities, counties, colleges, parks, agricultural equipment manufacturers, preservation, and residents
- Advised by a non-voting committee of prominent Leadership Advisors representing the state, municipalities, businesses, and universities
- Receives recommendations for project funding from a 15-member Partnership Council representing heritage destinations, preservation societies, universities, farm bureau, and lodging

Wheeling National Heritage Area (West Virginia)
- Designated in 2000
- Managed by a nonprofit 501(c)(3) corporation with 12 board members representing city, county, and state
- A 9-member foundation helps with fundraising
- Management plan recommends creation of a 20-30 member Community Advisory Council

Yuma Crossing National Heritage Area (Arizona)
- Designated in 2000
- Managed by a nonprofit, 501(c)(3) corporation with an 11-member board of directors representing the city, county, state, tourism/economic development, historical societies, historic preservation, agriculture, residents, and the National Park Service (ex officio)
- A 7-member executive committee oversees operations; members include representatives of the city, tourism/economic development, historical society, agriculture, and residents
- A large advisory commission represents a broad range of community interests

Future Local Coordinating Entity for the Little Colorado River Valley National Heritage Area

The concept for the proposed Little Colorado River Valley National Heritage Area's management entity follows the non-profit model used by the majority of existing National Heritage Areas. The Little Colorado Heritage Partnership (LCHP) will incorporate as a nonprofit, 501(c)(3) corporation chartered in the State of Arizona by June 2008. The organization will start with a small Board of Directors drawn from the diverse geographic, cultural, and personal expertise attributes that are represented by the multiple Working Groups members that have participated in this feasibility study.

This Board will be responsible for planning, fundraising, and staff hiring. The initial board will review the general plan and options outlined in this draft document and will have input into the final version of this feasibility study. This will ensure congruence between the organizational structure and goals presented here and the goals of the newly appointed LCHP Board.

An important goal of the proposed LCHP board is to ensure equitable representation of jurisdictions, interest groups, and cultures within the proposed boundaries of the National Heritage Area. Eventually, a smaller Executive Committee will be elected from among the board members to oversee operations and provide direction to staff. The staff will implement programs and coordinate the activities of the National Heritage Area. The Board of Directors will be advised and assisted by a relatively large Partnership Advisory Council whose members represent a broad range of local interests.

Board of Directors

In June of 2008, an Arizona not-for-profit entity, the Little Colorado Heritage Partnership, Inc., will be incorporated. The initial Board of Directors will consist of individuals who have demonstrated a strong commitment to the Little Colorado River Valley National Heritage Area through their participation in Working Group activities. Representation will come from each of the five working groups, thereby helping to cover the varying interests from throughout the region of the proposed National Heritage Area. The primary responsibility of this initial board is to review and help revise the draft Feasibility Study. Board members will also draft criteria for board membership and will recruit new board members. They will also help promote the heritage area concept within the Little Colorado watershed. The board will also begin preparing an application for tax exempt status under Section 501(c)(3) of the Internal Revenue Code. That application will be submitted in early 2009.

Initial Board of Directors

- Members from the five Working Groups advocated the proposed National Heritage Area and who represent a broad spectrum of local interests
- Will apply for 501(c)(3) status
- Recruit new board members

The initial Board of Directors is to transition to a larger board with a structure that equitably represents the counties and tribes within the proposed boundaries of the National Heritage Area, as well as a composition which reflects the cultural diversity of the Little Colorado Valley. The planned structure to achieve this goal is a board with 16 members (15 voting members and a non-voting National Park Service representative). Board members will include a representative of the National Park Service (the Superintendent of Petrified Forest National Historical Park or an appointee, serving in an ex officio role), a representative of the State of Arizona and the State of New Mexico (appointed by the Arizona State Parks Department and New Mexico State Parks Department, respectively), representatives of four counties (appointed by the respective county Boards of Supervisors), three Native American nation representatives (appointed by the tribal governments of the Hopi Tribe, the Pueblo of Zuni, and the Navajo Nation), and six at-large members representing some combination of the following interests: municipalities, Native American tribes, tourism/economic development, ranching, agriculture, historic preservation, nature conservation, and culture/arts.

In this structure, the full board will meet at least quarterly, with primary functions to include planning,

fundraising, and staff hiring. Meetings may be held via conference call to reduce the burden of travel. Officers will be elected annually. Six members of the board will be elected to serve as an Executive Committee that will meet monthly to oversee operations and provide direction to staff (see below). The board will be advised and assisted by a large Partnership Council representing a broad spectrum of local interests (see below).

Pre-designation tasks for the Board of Directors include: (1) continued public outreach; (2) communication with the legislators sponsoring the designation bill; (3) organization of local support for the designation bill; (4) initiation of some programs to demonstrate the potential effectiveness of the Partnership, and to raise the profile of the proposed National Heritage Area; (5) fundraising to support these activities; and (6) hiring of staff to coordinate these activities, following the necessary fundraising. After designation, the most important board tasks, initially, will be to identify the scope of work and to perform a review role during preparation of the management plan.

Structure and Roles of Board of Directors

- 16 members (15 voting members)
  - –1 Coconino County (appointed by Board of Supervisors)
  - –1 Navajo County (appointed by Board of Supervisors)
  - –1 Apache County (appointed by Board of Supervisors)
  - –1 McKinley County (appointed by Board of Supervisors)
  - –1 State of Arizona (appointed by Arizona State Parks)
  - –1 State of New Mexico (appointed by New Mexico State Parks)
  - –1 National Park Service (non-voting)
  - –1 Hopi Tribe (appointed by tribal government)
  - –1 Pueblo of Zuni (appointed by tribal government)
  - –1 Navajo Nation (appointed by tribal government)
  - –6 at-large members representing the following interests: municipalities, Native American tribes, ranching/agriculture, tourism/economic development, historic preservation, nature conservation, culture/arts
- Elects a 6-member Executive Committee that meets monthly to oversee operations and provide direction to staff
- Meets at least quarterly
- Conducts planning, including completing the required management plan during first three years of designation
- Continues public outreach
- Communicates with legislators sponsoring designation bill
- Organizes local support for designation bill
- Initiates programs
- Conducts fundraising
- Identifies scope of work and performs review role for management plan
- Hires staff
- Receives recommendations from the Partnership Advisory Council for funding and other support of projects and programs (see below)

Staff

The staff of the local coordinating entity will identify possible funding sources, prepare grant proposals, coordinate fundraising, conduct public outreach, liaison with legislators, help build and support partnerships, develop and maintain a website, and develop and implement programs. The goal is to hire the first staff in 2009 to

begin some of these activities prior to designation. After designation, the staff will coordinate preparation of the management plan.

Structure and Roles of Staff

- Positions will be funded by a combination of donations from local governments, businesses, and foundations and matching funds from annual Congressional appropriations to the National Heritage Area
- The goal is to hire the first staff person in 2009
- Writes grant proposals
- Coordinates public outreach
- Coordinates fundraising
- Serves as liaison with Congressional legislators
- Develops content for website
- Develops programs

Rationale for Local Coordinating Entity Plan

Input from stakeholder meetings and a large number of supporting entities and individuals indicate strong support for the concept of a new local organization that will develop and manage the Little Colorado River Valley National Heritage Area. The unique purpose of this organization is to serve as the local coordinating entity for the National Heritage Area. This mission will require a very focused approach to planning and management over the long term.

While representatives of local governments will be involved, the need for this management entity to be broadly representative of local interests requires that it operate independently. The local coordinating entity should be designed to operate outside the influence of the often-changing political environment to be as responsive as possible to the needs of local residents and interest groups. Operating as a separate nonprofit, tax-exempt corporation, the management entity can most effectively approach individuals, corporations, foundations, and government funding sources for both operating and programmatic funds. An independent nonprofit will also be able to collaborate effectively with other entities in the region—government agencies, other nonprofits, and private foundations. The organizational structure of the management entity outlined here—including a medium-sized Board of Directors, a small Executive Committee, staff positions with specified roles, and an inclusive Partnership Advisory Council—will allow for efficient planning and operations responsive to the needs and inputs of a broad spectrum of local stakeholders.

Conceptual Financial Plan

This conceptual financial plan for the proposed Little Colorado Valley National Heritage Area begins by defining two phases that are essential for achieving the transition from this Feasibility Study through to the completion of a management plan for an established heritage area. This section then addresses a number of areas critical to ensuring its long-term economic sustainability:

- capability to fund—through both earned and unearned income
- operating budgets for the next two phases of heritage area development
- funding strategy
- federal match funding

Phasing

The initial concept of a National Heritage Area for the Little Colorado River Valley emerged from community meetings in Springerville and Snowflake, Arizona, that were held in late 2003. Thus, the completion of this Feasibility Study in late 2008 will represent the culmination of five years of gradual development of that concept. It is helpful to consider the completion of this Feasibility Study as the close of the initial phase of the proposed Area's development. It is also important to clearly define the next two phases of the process. The review of this study by the Secretary of the Interior and the passage of legislation by Congress to create the Little Colorado River Valley National Heritage Area are the critical elements of the next phase, which ends with achieving designation. The subsequent phase after designation is focused on completing a management plan. Those two stages are briefly outlined, because the basis for structuring a financial plan for the LCHP.

Phase 1: Achieving Designation (2009 and 2010)

The Feasibility Study was funded by an Arizona Heritage Fund grant and private support obtained by the Center for Desert Archaeology. It is proposed that the next phase move forward as a formal partnership between the LCHP, the diverse interest groups and municipal and tribal governments of the proposed National Heritage Area, and the Center for Desert Archaeology. The momentum that has been gained through the process of preparing this Feasibility Study can easily be lost if there is not continuity of personnel and the dedication of key individuals to invest substantial time to work toward achieving designation. The Center is able to offer half-time services of its Heritage Programs Coordinator as well as provision of administrative and other support services during the two year duration of Phase 1.

Phase 2: Completion of a Management Plan (2011-2012)

A management plan is a key requirement that must be completed by the local coordinating entity, the LCHP, after the Little Colorado River Valley National Heritage Area is designated by Congress. The management plan is a detailed presentation of the goals of the Area. There must be comprehensive lists of resources that will be protected, enhanced, or interpreted, and their relationships to the themes of national significance must be clearly stated. The specific strategies to be employed to achieve educational, economic, and preservation goals must be identified. Of critical importance is the business plan of the local coordinating entity and the documentation that the plan was developed through broad community outreach and participation. The present Feasibility Study has initiated the process that will come together in the management plan. Given the amount of progress already achieved, it is estimated that the management plan could be completed in 18 months. The Secretary of Interior would respond to that plan within six months. These two time elements are the basis for the two years allocated for achievement of an approved management plan.

Preparation of a management plan would require federal funding. It is assumed in the phasing outlined here that other activities related to development and implementation of the program of the Little Colorado River Valley National Heritage Area

would also take place throughout both Phases 1 and 2.

Capability to Fund

The underlying motivation for this effort to establish a Little Colorado River Valley National Heritage Area has been the potential benefits to the many communities of varying size that are located throughout the watershed. For that reason, a key element of the initial funding strategy for the LCHP is to seek a baseline of five years of support from these many communities and their associated municipal governments. These funding requests would be proportional to the size of the community and would be subject to annual renewal. The LCHP will submit an annual report detailing accomplishments, spending, and identifying specific goals for the upcoming year. Thus, there will be a strong element of accountability and a requirement that these local dollars are achieving goals that benefit the local communities.

Grants will also comprise a key element of the funding for the LCHP. There are many opportunities for grants from federal and state sources as well as from private foundations. Because the one-to-one matching fund requirements for an established Area must come from non-federal sources, priority will be given to seeking non-federal grants where that is appropriate. Thus, the Arizona Heritage Fund will be a high priority candidate for grants. The State of New Mexico offers small grants for historic preservation through its State Historic Preservation Office. The key to successful grant writing is to ensure that there is a close match between the goals of the funding agency and the needs of the LCHP. It will be very important that the LCHP develop staff with a record of successful grant writing.

Memberships will be a minor, but very important, source of income for the LCHP. A business membership will be developed for enterprises that conduct heritage or nature based activities within the boundaries of the Area. These could be bed-and-breakfast operations that feature historic buildings or other historic themes, or they could be ranches that offer opportunities for tourists to participate in ranch life. The LCHP would actively promote such enterprises through a website and heritage tourism literature, and such businesses would pay a higher level membership fee to the LCHP. The second form of membership would focus on interested supporters, from businesses to families to individuals. They would pay a reasonable annual fee and receive a regular newsletter and other nominal benefits.

Low levels of earned income are anticipated in the second phase of developments, after additional staff members have been hired. This is expected to be in the form of sales of heritage or nature related books or calendars that would also serve to expand awareness of the rich resources of the Area. There is potential for significant expansion of earned income in subsequent phases of heritage area development. Those opportunities will be addressed in the management plan and will be essential to achieving long-term sustainability for the National Heritage Area.

Private and corporate donations will be an additional source of support, however, it is expected that these will require time to develop. The LCHP will need to establish its tax exempt status and to develop a track record of

Table 2.1. Budget summary for Phase 1 and Phase 2.

	2009	2010	2011	2012
Income				
Non-federal	100,000	100,000	201,000	196,000
In-kind	20,000	20,000	30,000	30,000
Federal	-	-	200,000	200,000
Total	120,000	120,000	431,000	426,000
Expenses				
Employees	62,500	67,500	183,750	195,000
Other	30,000	29,000	216,800	132,800
Grants	-	-	-	60,000
Total	92,500	96,500	400,550	387,800

success. It is expected that the LCHP board and staff will be able to achieve at least low levels of private and corporate support initially, however, a position devoted to fund raising and community relations is expected to be a necessity to build private and corporate donations into a significant source of support for the LCHP. That position is not anticipated in the two phases of development that are considered in this document.

Proposed Operating Budgets for Phase 1 and Phase 2

Phase 1 is the two-year period following completion of this Feasibility Study and prior to achieving designation as a National Heritage Area. No federal funds are available during that time period, and it is a critical time in the development of the National Heritage Area effort. This is the time when it is essential that the local communities that will ultimately benefit from the Little Colorado River Valley National Heritage Area provide financial support. Furthermore, even after designation has been achieved, initial efforts during Phase 2 must focus on completion of a management plan. A management plan approved by the Secretary of the Interior is essential to initiate the 15-year, up to $10 million support cycle for a new Area. Thus, it is strongly recommended that the local communities and county governments of the Little Colorado River watershed make pledges of five years of financial support to the LCHP. Simplified budgets are displayed in the following table for Phase 1 and Phase 2, and more detailed budgets are included as Appendix XX.

Personnel Plan for Phases 1 and 2

This plan assumes that there will be one full-time employee during Phase 1 with expansion to three employees during Phase 2. The personnel are briefly described.

Phase 1 Program Manager: Ideally, this position would be filled by Linda Marie Golier, the Heritage Programs Coordinator for the Center for Desert Archaeology, who has led the effort to create this Feasibility Study. The Center can detail Ms. Golier to the LCHP for the two years of Phase 1. The Center can cover half of her payroll and benefits costs if other non-federal sources can cover the other half of those costs. Ms. Golier's substantial experience with this project would ensure that the transition to this

important stage of the overall effort does not result in any loss of momentum. Key tasks for Phase 1 relate to continued building of support for the National Heritage Area effort and the initiation of program activities of broad benefit across the entire Little Colorado watershed.

Phase 2 Executive Director: The Executive Director must have a diverse skill set in order to effectively manage relationships with the Board of Directors, the LCHP staff, and with collaborating partners. The Executive Director should be responsible for carrying out the policies and program direction provided by the Board and must advise the Board on issues and opportunities that influence the organization's ability to meet its mission goals. In particular, the Executive Director must work closely with the Board to develop sources of income that will contribute to the long-term sustainability of the LCHP. Previous experience and demonstrated success as an Executive Director is highly desirable.

Phase 2 Program Manager: This position will work closely with the Executive Director in order to implement specific programs related to education, interpretation, preservation, or heritage tourism development. Preparing and administering grants and taking the lead on public communications through both a newsletter and the LCHP web site are expected responsibilities. Continuing to demonstrate the community benefits of the National Heritage Area and to develop relationships with potential donors are also elements of this job.

Phase 2 Administrative Assistant: A half-time or three-quarter-time administrative assistant will be an important addition during Phase 2. This will allow the Executive Director and Program Manager to be more focused on their core responsibilities as this individual will provide office administration, technical support, and clerical services.

This core staff, if filled with highly qualified individuals, should be able to carry out the basic work of the LCHP. In combination with a skilled and engaged Board of Directors, the LCHP will be able to efficiently and effectively serve as the local coordinating entity for the Little Colorado River Valley National Heritage Area.

Federal Match Funding

The potential to bring federal funding to assist in the process of promoting heritage and nature tourism and to provide the opportunity to create a grant program to benefit specific projects within the Little Colorado River Valley National Heritage Area is a very important element of this program. It is the intention of the proposed LCHP to create a competitive program through which local communities, projects, nonprofits, and other qualified organizations can access the match funding that will eventually be appropriated to the National Heritage Area from Congress through the National Park Service. The LCHP grant program will be guided by its approved management plan with regularly updated 5-year strategies developed with input from public meetings and the Partnership Council. The LCHP will set criteria for eligibility, funding amounts, types of projects to be funded, and monitoring and evaluation processes.

The grants program is anticipated to begin in the second year of Phase 2, with a small grants program for projects up to $10,000. This will help to

provide immediate benefits for roughly six to ten projects that can meet eligibility and matching fund requirements. This need to expand the availability of funding within this region has been identified consistently by stakeholders throughout the proposed heritage area. Expansion of this grants program will be addressed specifically in the management plan prepared during Phase 2.

Summary

This Conceptual Financial Plan for the proposed Little Colorado River Valley National Heritage Area addresses the needs of the NHA and its local coordinating entity, the Little Colorado Heritage Partnership (LCHP). It also outlines the roles of the various potential funding sources and lays out a strategy to ensure the economic sustainability of the Area. Fully adopting and implementing this Financial Plan will allow the LCHP to ensure that the distinctive landscapes and resources of the heritage area are recognized, protected, enhanced, and interpreted to improve the quality of life for residents, and also to ensure opportunities for public appreciation, education, enjoyment, and economic sustainability.

PROPOSED BOUNDARIES

The proposed boundaries of the Little Colorado River Valley National Heritage Area encompass between 26–27,000 square miles in northeast Arizona and northwest New Mexico. The boundary is natural. It is the watershed boundary of the Little Colorado River and its tributaries with the exception of three minor alterations (the inclusion of the entire San Francisco Peaks landform and the exclusion of extremely small parcels in San Juan County, New Mexico and on the White Mountain Apache Reservation in Arizona) as described in Chapter 1. As will be shown in Chapter 3, the river provided a unifying force for centuries of human habitation. The high mountains and mesas surrounding most of the watershed's edges, and the unique landforms within its boundaries, led to the development of human lifestyles that differ from regions that surround it. Native Americans developed specialized crops and farming techniques in response to the climate and soil conditions. The timing and intensity of Spanish colonial settlements was quite different in the Little Colorado River Valley as compared to the Rio Grande River Valley, its neighbor immediately to the east. Logging played a major role in the late 19th century development of several towns, but virtually no logging took place in regions to the south of the watershed, especially in Arizona. The region's topography and climate facilitated easier east-west travel than could be found through the Rocky Mountains to the north or the hotter deserts to the south. This travel corridor, roughly along the 35th parallel, would time and again play a significant role in what happened in the region. The Little Colorado River watershed unites what is at first glance a very diverse region into a cohesive, inter-related landscape.

The watershed boundary marks an area that is a source of identity for many residents, is a coherent natural and cultural landscape, and has sufficient nature and heritage resources to support a National Heritage Area designation. The boundary is not regulatory and designation will have no effect on private property rights, zoning, property taxes, or government and agency jurisdictions. An analogy

for a Heritage Area is an "enterprise zone," in which an area has been designated for voluntary participation to obtain benefits.

Another analogy would be Resource Conservation & Development Districts operated through the Department of Agriculture. Resource Conservation & Development Districts are geographically defined regions that received federal dollars and staff to engage with local leaders and landowners to conduct project primarily related to land and water resource management and improvement. Projects within the proposed National Heritage Area boundary will be eligible for federal funding and other assistance from the National Heritage Area.

ROLES OF DIFFERENT ORGANIZATIONS AFTER DESIGNATION

Some existing and new groups and institutions, as well as a unit of the National Park Service, have participated in the designation process. Three of these will be involved in the management of the National Heritage Area after designation. The following summarizes their roles.

Petrified Forest National Park

- Created by President Theodore Roosevelt in 1906 as Petrified Forest National Monument; achieved National Park status in 1962
- Park currently consists of 93,533 acres, but a boundary expansion approved in 2004 will increase the boundaries to 218,533 acres as lands are purchased or gifted
- Contains the Painted Desert Inn, built in 1924, renovated by Mary Colter with murals by Fred Kabotie in 1947, and designated as a National Historic Landmark in 1987
- Serves as required National Park Service partner for the development of the feasibility study and future management plan of the proposed Little Colorado River Valley National Heritage Area
- Will provide comments and input to National Park Service testimony about the feasibility study and management plan
- May manage annual Congressional appropriations to the National Heritage Area through amendments to the Cooperative Agreement which describe the purposes of each year's funding *(Note: this funding structure is under review at this time and may change according to Congress's decisions)*
- Will provide a non-voting, ex-officio member to the board of the Little Colorado Heritage Partnership
- Will assist in the process for National Register nominations in the National Heritage Area
- Will provide expertise about geology, paleontology, and natural and cultural resources to the National Heritage Area and its partners

Little Colorado Heritage Partnership, Inc.

- A newly-created non-profit that will serve as the coordianting entity for the Little Colorado River Valley National Heritage Area
- Board will consist of individuals that represent the geographic and cultural diversity of the region
- Will likely develop a small paid staff
- Will have a major fundraising role

- Will be responsible for administering federal appropriations through a re-granting program
- Will evolve as the needs and capabilities of the National Heritage Area develop over time
- May provide one non-voting, ex-officio member to the board of the Little Colorado Heritage Partnership, Inc. during the initial stages of the National Heritage Area's development

Center for Desert Archaeology

- Secured the funding and personnel to complete the feasibility study

chapter 3

heritage themes and related resources

DEVELOPMENT OF THE HERITAGE THEMES

The seven heritage themes in this chapter emerged directly from public input. During Meeting Two of the series of four Working Group meetings described in Chapter 1, participants were divided into small groups and given large maps of the Little Colorado watershed. They were then asked a series of four questions designed to elicit responses that would describe the heritage of the region.

- If you had a two-week dream vacation in the Little Colorado River watershed, where would you go?
- If you had to describe this area to someone who had never been here, what would you say?
- When friends or family come to visit, where do you take them?
- If "something" were to leave this area forever, what would you miss most?

Participants drew or wrote their responses on the maps. In most cases, the maps were completely covered with sites, references to historical events, notes about the current diversity of cultures found in the watershed, and lists of activities related to outdoor recreation or local festivals. Continuing in their small groups, participants reviewed all of the items placed on the maps and devised between four and six themes that would capture all of the items. Each small group then reported its themes to the whole group. The whole group then worked all of themes suggested by each smaller group into one set of between four and six themes. This process took place at five meetings in five different locations across the watershed and resulted in a total of 25 heritage themes being suggested. Many of the themes from a Working Group in one meeting location were virtually the same as themes suggested by one or more Working Groups in other meeting locations, thus giving evidence that particular themes indeed identified prevalent, consistent, and over-arching characteristics of the region. The Heritage Programs Coordinator reviewed all 25 suggestions and found seven common themes that united the most frequently suggested themes by the Working Groups. Those seven unifying themes became the seven

heritage themes described in this chapter:

- Sacred and Enchanted Landscapes
- Trails, Roads, and Rails of the West
- Native Nations
- Living from the Land
- Archaeology
- Expressions of Art and Life
- Outdoor Recreation

After establishing the seven heritage themes, the next round of Working Group meetings focused on identifying resources within the watershed that reflected, interpreted, or embodied one or more themes. The seven themes were written on large pieces of paper and participants wrote down the name of the resource (a site, event, organization, business, etc.) and its general location on the paper of the particular theme the resource fit. Participants were asked to identify resources that related to tourism as well as those that served local communities, although often a single resource fulfilled both functions. Often, too, a single resource reflected more than one theme. The related resources sections that appear in each heritage theme chapter are a direct result of data generated during these Working Group meetings.

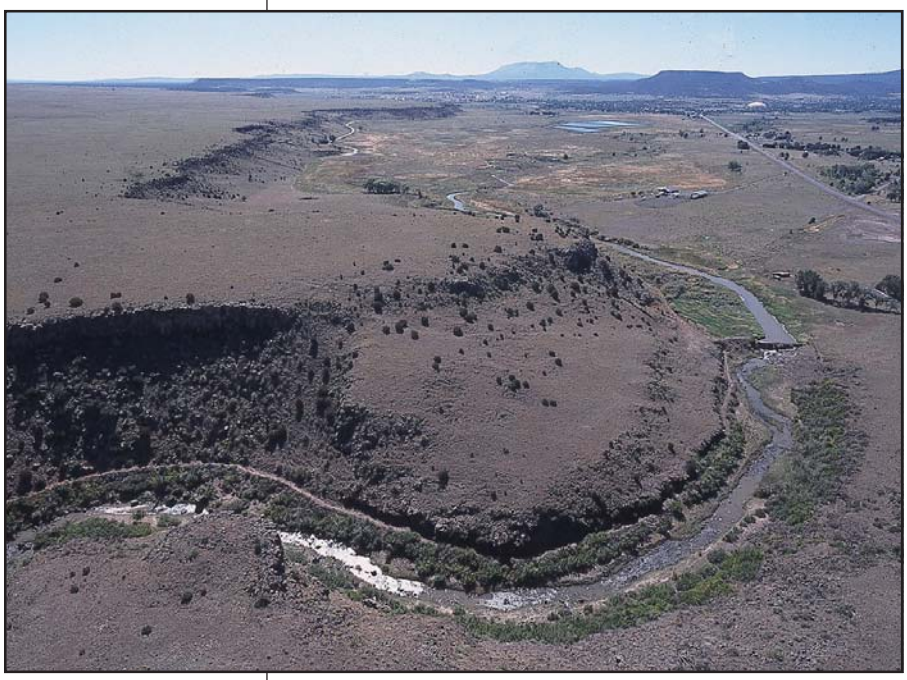
Theme 1
Sacred and Enchanted Landscapes

"The valley is vast. When you look out over it, it does not occur to you that there is an end to it. You see the monoliths that stand away in space, and you imagine that you have come upon eternity. They do not appear to exist in time. You think: I see that time comes to an end on this side of the rock, and on the other side there is nothing forever."

– *The Names*, N. Scott Momaday

SUMMARY OF THEME

The Little Colorado River Valley is a landscape of mesmerizing colors, astounding views, deceiving distances, immense quiet, and ancient, remembered places. For a very long time, people's lives have been intricately linked to this land, with meaning attached to nearly everything in it and everything it produces—sacred mountains, springs, streams, rocks, plants, animals—each honored or carefully marked by shrines, prayer feathers, petroglyphs, corn pollen, and story. A Hopi farmer looks toward a particular mesa on the horizon and tracks the sun's position through the year; a Zuni man follows an old trail to a revered place beside the river; Apache school children take a field trip into the mountains and learn plants along the way; a Navajo grandmother gathers fragrant sprigs of a shrub she'll use for medicine.



The Little Colorado River begins its winding journey to the northwest after starting as a mountain spring high in the White Mountains. The higher land on the left side of the picture is the result of lava that bubbled up from a shield volcano and spread across the land slowly. (Photo credit: Adriel Heisey)

The 26,000-square-mile watershed of the Little Colorado extends from the Continental Divide in New Mexico, south to the Mogollon Rim and White Mountains of Arizona, west to the San Francisco Peaks, and north to Black Mesa on the Navajo and Hopi reservations. It's big country, 16.5 million acres, with unending vistas across empty grasslands, broken badlands, undulating volcanic fields, and hidden canyons.

Travelers speeding by on the interstate might not notice much of interest. The enchantment comes with a detour off the main road, permitting more time for a closer look at the subtleties. It grows with a walk down into painted hills littered with

gleaming chips of petrified wood, on a hike up a trail into the mountain headwaters of the Little Colorado, or at a roadside pullout where a flashflood steamrolls down a normally dry wash. Then that sense of endless time and silence seeps in, working magic and instilling appreciation of why this landscape is viewed as enchanted and sacred.

DESCRIPTION OF THEME

Geology

The Little Colorado Basin occupies the southeast section of the Colorado Plateau, a major physiographic province and geologist's paradise. Like the larger plateau of which it is part, the predominant rocks of the Little Colorado Basin are sedimentary and volcanic in origin, recording more than 200 million years of geologic time. Underlaying most of the basin are the same sedimentary layers as those that occur in the upper portion of Grand Canyon. Two of those layers, the Kaibab Limestone and Coconino Sandstone, crop out in a few places.

Mostly exposed on the surface are progressively younger, mostly horizontal, sedimentary layers that make up the Plateau's classic Mesozoic sequence: the Moenkopi, Chinle, Wingate and Moenave, Kayenta, Navajo and Gallup sandstones, and Dakota and Mesa Verde Formations.

The brick-red Moenkopi Formation is composed largely of siltstones and fine-grained sandstones veined with gypsum. The sediments were deposited by a northwest-heading river flowing across a coastal plain 250 to 228 million years ago, the early Triassic Period of the Mesozoic. This part of the American Southwest was much closer to the Equator then, and the environment was humid to subtropical.

The defining formation of the Little Colorado Basin, known best in the Painted Desert and Petrified Forest National Park, is the Chinle. The Chinle's multicolored pastel layers—red, purple, blue, green, gray, white—consist of clays, mudstones, and sandstones deposited by streams that flowed slowly across a low basin about 225 million years ago, in late Triassic times. The Chinle also contains significant amounts of ash blown in from surrounding volcanoes. The ash weathered to bentonite clay that swells and shrinks with wetting and drying, giving the formation the common name "badlands." The Chinle reaches greatest expression near the border of Arizona and New Mexico, where it is nearly 2,000 feet thick. The soft clays erode rapidly, at the rate of one to two feet a century. The weathering and erosion reveal animal and plant fossils that have made the Chinle famous among paleontologists for well over a century.

About 200 million years ago, at the end of the Triassic and beginning of the Jurassic, uplifted land held sand waiting to be picked up and carried by the wind to accumulate as the Wingate Sandstone. To the south, the Wingate grades into the Moenave Formation, laid down partly as windborne dunes, but also in ephemeral lakes and local rivers. Atop these rest the Kayenta Formation, river-laid silts and sandstones interspersed with purplish beds of shale. The Navajo Sandstone, one of the plateau's outstanding rock layers, started as dunes in a paleo-desert as large as today's Sahara. The nearly pure quartz sand grains were compressed into rock that forms steep, sculpted cliffs and rounded domes. Moving eastward into New Mexico, the

Zuni and Gallup Sandstones form similar cliffs, overlain by Cretaceous-Period Dakota and Mesa Verde Formations.

In the ensuing Cenozoic Era (65 million years ago-present), riotous volcanic activity spewed voluminous quantities of lava, cinders, and ash across the land. Thick caps of resistant basalt cover many mesas; hundreds of cinder cones and associated lava flows punctuate the landscape. Three volcanic regions, among the largest in the country, occur in the basin—the San Francisco and Hopi Butte fields in Arizona, and the Springerville field near the White Mountains which extends into the Datil area in New Mexico. The youngest cinder cone in the basin is Sunset Crater just east of the San Francisco Peaks. It erupted sometime between A.D. 1050 and 1100 for up to several years, and left behind a cone rimmed with reddish-yellow cinders, hence the name and protection as a national monument.

The San Francisco Peaks, a stratovolcano, mark the western edge of the basin. At 12,633 feet elevation, the Peaks are the highest point in Arizona. They are sacred to more than a dozen Native groups. To the Navajo they are the Dook'o'osliid, the "abalone shell mountains," one of the four sacred peaks that mark the boundaries of their land. The Hopi call them Nuvatekiaqui, home of the kachina, spiritual beings that live half the year on the Peaks and half the year on the Hopi Mesas. To the Zuni they are Sunha K'hybachu Yalanne, to the Apache Dzil Tso.

About 20 million years ago, the landscape began to assume its present configuration with uplift of the Colorado Plateau as a single, largely undeformed, crustal block. Renewed movement along faults, and formation of large-scale folds such as the East Kaibab Monocline, shape the modern course of the Little Colorado River. Thus the fundamental geologic processes of deposition, uplift, and erosion have occurred, and are still occurring, throughout the Little Colorado Basin. Erosion is an especially visible, and exceedingly rapid, process in rocks such as the Chinle Formation, and accounts for the huge sediment loads the river carries.

Minerals occur in minable amounts in some of the rocks, especially uranium deposits in the Chinle and coal in the Mesa Verde Formation.

Meteor Crater, a national landmark, is a large indentation in the grassy plain south of Interstate 40 and west of Winslow, Arizona. Early establishment geologists thought the pit resulted from a volcanic explosion. But mining engineer Daniel Barringer believed the crater—500 feet deep and 4,000 feet across—was left behind after a meteorite crashed into Earth. He intended to mine the iron-rich deposits left behind by the meteorite. Barringer, it turns out, was correct. Meteor Crater now is understood to have been the result of such an impact, and it is now a world-renowned feature among planetary geologists and nonscientists alike.

While dramatic events like meteorites, and the sometimes less spectacular work of water, have shaped the landscape, wind is a force to reckon with here. Geologists set up weather stations on cliffs in the Painted Desert as part of the Desert Winds Project. But the wind blew so hard, and carried so much sand, the equipment soon became jammed. Remote monitoring systems replaced it, and geologic and meterologic data have been collected

for many years. The information is useful in studies of climate change and desertification in the region. Sand in the basin tells another interesting story. Westerly winds blow sand up off the bed of the Little Colorado, ramps of dunes climb the cliff faces to the east, then some of the sand is brought back down the washes to the river, the process continually repeating in a giant recycling system.

Paleontology

The late, famed paleontologist Edwin Colbert wrote that the Petrified Forest "is in many ways unique . . .[and] is. . . an outstanding segment of a world-wide record of the earth as it existed more than 200 million years ago."

The Petrified Forest—and a major portion of the Little Colorado River Basin—preserves that significant, unique record of life on earth. Here, the door opens into the Mesozoic Era, the Age of Reptiles, especially those great reptiles known as dinosaurs. With major rock layers dating to the late Triassic of the Mesozoic, they hold the key to a time of transition in life forms. It was the time when the earliest dinosaurs and modern predecessors of other animals, and plants, stood poised on the threshold; during the same period, doors were being closed on some of nature's failed experiments.

During the late Triassic, a diverse group of animals populated what would become the American Southwest. Small and large, predator and prey, meat-eaters, plant-eaters, dwellers both on land and in water, they added up to an incredibly diverse lot. There were giant amphibians, crocodile relatives, freshwater sharks, bony fish, clams, insects, and those earliest dinosaurs. Much of the remarkably full reconstruction of the late Triassic has come from the rich fossil record of the Little Colorado River Basin, particularly from the Chinle Formation in and around Petrified Forest and the Painted Desert.

The first fossil plants and vertebrates were collected in the Chinle by exploring parties in the mid 19th century. Scientists combed the area through the 20th century. Research and excavations into the first decade of the 21st century are still posting many "firsts" in paleontology, with new and exciting finds at Petrified Forest in particular. The discovery of several well-preserved skeletons of an animal named *Revueltosaurus*. Determined to be a relative of crocodiles rather than dinosaurs, this discovery has led to a wholesale reexamination of evolutionary lines in the late Triassic. Other crocodile relatives—the aetosaurs—have been found. New phytosaur skeletons, including complete skulls, have also been uncovered.

A pair of quarries in the Chinle near Saint Johns, Arizona, along the Little Colorado River, have also been motherlodes for paleontologists. The *Placerias* and Downs quarries have yielded more bone than almost any other Triassic site in the hemisphere. Among the most common fossils are the namesake *Placerias.* This mammal-like reptile was shaped like a barrel, with some specimens weighing two tons and sprawling to nine feet in length. Also, lizard-like reptiles, aetosaurs, and big amphibians known as metoposaurs have been recovered at these locations.

An array of plant fossils has added to the reconstruction of the Triassic environment. Some 200 species have been identified from Petrified Forest

alone—fossilized leaves, stems, cones, pollen, even charcoal. Cycads, horsetails, and ferns indicate an environment that was then much wetter, some say tropical. Of course, the area's best known fossil is petrified wood, from large conifers that were washed downstream, buried in ash and mud, and the wood literally turned to stone over time. (Arizona's state fossil, *Araucarioxylon arizonicum*, is the source tree that has produced most of the petrified wood.)

Other rock layers in the basin have also yielded fossils, ones that indicate a change to a drier environment and that show dinosaurs assuming their full reign. Though a few plant fossils have been found in the Moenave Formation, mostly it is known for trackways of animals. The three-toed tracks of large carnivorous dinosaurs are notable, along with those of archosaurs, therapsids, and possibly small mammals. On Navajo land near Cameron and Tuba City, Arizona, dinosaur track sites have been known for more than a century. One of the most extensive ones in the West is in the Ward Terrace area. Barnum Brown, curator of vertebrate paleontology at the American Museum of Natural History in New York, learned of it from local residents. He visited the site in 1929, and Museum of Northern Arizona paleontologists rediscovered and studied it in the 1980s and 1990s.

Still more tracks and fossils—of dinosaurs, frogs, turtles, lizards, pterosaurs, and more—have been found in the Kayenta Formation and layers above it.

Hydrology

The 26,000-square-mile basin, about the size of the state of West Virginia, is a bowl rimmed on all sides by higher country. All runoff drains into the Little Colorado River, the seam that stitches the watershed together. Along its 350-mile course, the Little Colorado can be divided into three distinct sections. The river begins life as springs that rise on 11,400-foot Mount Baldy, a wilderness area in the White Mountains of eastern Arizona. These headwaters are sacred to the White Mountain Apache, home of their benevolent *gaan* spirits. The East, West, and South Forks join to form a single stream, a cool brook narrow enough to step across in the upper reaches.

This character persists as the river flows north past Greer, through Round Valley and beside the town of Springerville to Saint Johns. Zunis make pilgrimages to the river near Saint Johns, at a sacred place they call Kolhuwaa la:wa, or Zuni Heaven.

Here the Little Colorado veers northwestward, winding across the Painted Desert past Holbrook and Winslow to Cameron. It transforms to a "flashy" desert river, crisscrossing a wide, flat floodplain, flowing intermittently with winter snowmelt and summer monsoon rains. Its average flow is about 250 cubic feet a second, 18,000 cfs is considered high flow, and historic extreme flows of 50,000 cfs have been recorded. But the word "average" has little meaning for this mercurial river. The water can rise by feet in a matter of hours, then recede to a trickle by the next day. Early Mormon colonists learned this when they arrived in the valley in the spring of 1876 to settle homes and farms. They remarked that the river looked "like a running stream of mud of reddish color." But by July, it was reported dry. The Mormons tried repeatedly to construct brush and rock dams to divert irrigation water, but a

rampaging Little Colorado swept away the dams as fast as they could be built.

Ideas of where the Little Colorado *originally* flowed engender lively discussions among geologists. Depending on how far back one goes in geologic time, the river's course probably was not what it is now. One prevailing theory proposes that an ancestral river flowed out of the north and turned toward the southeast, opposite the Little Colorado's modern direction. An uplift blocked the southeast flow, caused formation of a large lake, and sent the Little Colorado in a reverse direction. It was then "captured" by another major drainage system and pulled into what became the through-flowing main Colorado River. A look at a map today shows the Little Colorado entering the mainstem Colorado just as the Colorado makes a 90-degree turn into the heart of the Grand Canyon. This critical positioning thus ties any theory into the evolution of the Grand Canyon and Colorado River, and uplift of the Colorado Plateau. It's a very complex story, destined to keep geologists busy for many years to come.

Studies of the Little Colorado in the 20th century, at least, show the river constantly adjusting to climatic, land use, and other factors. From 1900 to around 1940, large floods eroded and widened the river channel. With a decrease in rainfall in the 1940s-1950s floods were less frequent, and flow was about half the preceding period. The channel narrowed. Wetter years from 1952 to 1978 again built up the floodplain.

Grand Falls is a notable landmark in the middle stretch of the river. This stairstep waterfall formed where the Little Colorado encountered a basalt flow that dammed the river and forced it to go around and back down into its old channel. At nearly 190 feet high, Grand Falls is higher than Niagara Falls.

The river continues on through the Painted Desert to Cameron, Arizona. From this point, it enters the final 50-mile reach, dropping precipitously over 2,000 feet in that short distance, down through a sheer-walled gorge to its confluence with the mainstem Colorado in Grand Canyon. In flood, the Little Colorado enters the main Colorado as a frothy silt-rich chocolate brew. At such volumes, the water carries enormous loads of sediment—in January 1993 the Little Colorado shuttled an estimated 10 million tons of sediment into the Colorado.

Perennial base flow in this lower reach, however, is supplied by Blue Springs, emerging from limestone layers several miles above the confluence. The high carbonate load precipitates out to form travertine terraces in the river, and turquoise waters swirl into the Colorado. Near the confluence is the *sipapu*, which the Hopi identify as the place where they entered this, the Fourth World.

The Little Colorado's own major tributaries enter from the east. The Zuni River meets it near Saint Johns, while the Puerco River, rising at the Continental Divide in New Mexico, comes in near Holbrook. From north and east ephemeral washes—Oraibi, Dinnebito, and Moenkopi among main ones—drain Hopi and Navajo lands. From south and west Silver Creek, East Clear Creek, Chevelon Creek, and Deadman Wash enter.

The basin also holds important groundwater sources, including the C- and N- aquifers. Where groundwater encounters an impermeable rock layer,

springs and seeps come to the surface. Notable ones include those at the base of Black Mesa, which provide crucial water for Hopi agriculture. Heavy drawdown of the aquifers for industrial, municipal, and power generation uses are raising concerns about the long-term sustainability of groundwater resources and springs. Native people of the region, with others, are working to protect and restore the valuable springs and wetlands.

Biology

The Little Colorado River Basin is a land of extremes. That's a fairly obvious statement, but numbers reinforce it. Precipitation varies from about 8 to 30 inches, both as snow in the higher elevations and as summer rains. Elevational extremes, from 2,500 feet above sea level to over 12,000 feet, along with complex geology, topography, and microclimates combine to produce high biological diversity. It was these extremes that brought biologist C. Hart Merriam to the region in the late 19th century, and from his work here he formulated the pioneering concept of "life zones."

Top: A small herd of pronghorn thunder across open land in Navajo County. Right: Arizona and New Mexico are famous for their deserts, but snow is a frequent winter visitor in the higher elevations of the Little Colorado River watershed.

The region resides in the rainshadow of the higher Mogollon Rim to the south and the San Francisco Peaks on the west, accounting for the region's general arid and semiarid climate. But with so many life zones present within the geographic area, there are amazing surprises. A small but significant piece of alpine tundra exists on the San Francisco Peaks. Below that is a forest of mixed conifers (Englemann and blue spruce, subalpine fir, Douglas fir) and quaking aspen in the mountains of New Mexico, the headwaters of the Little Colorado in Arizona's White Mountains, and on the San Francisco Peaks. Damp meadows and small lakes in the White Mountains host cattails, sedges, reeds, and rare bog orchids. Once the heart of grizzly bear country, these mountains are still home to black bear, elk, wild turkey, deer, and the endangered Mexican wolf. The Mexican spotted owl seeks the dark forests, while bald eagles and ospreys rule the sky.

Around 7,000 feet in elevation, ponderosa pine becomes dominant, part of the largest continuous ponderosa forest on the continent. This pine has been the focus of intensive studies of forest fire and restoration ecology. Gambel oak is the main understory tree. Hundreds of thousands of acres of pinyon and juniper woodlands grow across mesas, hills, and ridges at 6,000 to 5,000 feet. Though they grow slowly and do not attain great heights, some specimens are a thousand years old or more. Pinyon pines at Sunset Crater and Wupatki National Monuments in the western part of the basin are being studied to assess different climate change scenarios. Pinyons on cinder soils of Sunset Crater ("high-stress" sites drier and lower in nutrients) grow more slowly, produce fewer cones, and are more susceptible to insects than those on the lower-stress, sandy-loam sites in Wupatki.

Around 5,000 feet elevation, high-desert shrubs such as four-wing saltbush, shadscale, sagebrush, and

rabbitbrush begin to appear, representing a southern extension of the high, cold Great Basin Desert. In addition, Great Basin grasslands (gramas, sacaton, ricegrass) merge with the farthest west extension of Plains shortgrass prairie. Often muted and gray-green in appearance, the grass and shrubs morph into vivid green with only a few days of good summer rains. After a wet winter, an unexpectedly colorful wildflower display adds interest.

The grasslands of the Little Colorado Basin are ideal habitat for pronghorn, and the region's herds are important to the animals' populations. Optimum food for these ungulates is a mix of forbs and grasses. The fastest land mammals on the continent, they can sprint up to 60 miles an hour and flee any predator. Fawns, however, are more subject to predation and need grass high enough to stay hidden during their first weeks of life. Pronghorn also have adapted both to survive days of freezing temperatures, and extreme heat and drought. Other animals of the grassland live below ground. Burrowing owls, badgers, prairie dogs, and ground squirrels assume tenancy of empty burrows, and occasionally these different species will share a burrow.

The Navajo have a number of stories and uses for these grassland mammals. The prairie dog, "dloo," is lured from its burrow with a shiny object, then killed with a special, single-barbed arrow. Though the Navajo consider ground squirrels thieves, a squirrel tail hung on a cradleboard makes the child agile. Black-tailed jackrabbits, commonly seen in the grass and shrublands, in the past sustained the people through periods of starvation. They say that killing one before going deer hunting will bring good luck in the hunt. Coyote, the Trickster, figures in many Navajo stories. Ma'ii is magical, and though often guilty of greed is a wise messenger of morality. It was Coyote who threw the North Star and the Milky Way into the sky.

The "breaks" of Chinle Formation, interspersed with the grass and shrublands, are nearly barren of plants. The few species that can survive on the poor soils often are specialists that can tolerate soils high in salts and gypsum for example.

The Little Colorado and tributaries—along with hundreds of isolated springs, seeps, and shaded pools—are riparian areas that add immensely to the basin's biodiversity. The river's old channel is marked by Fremont cottonwoods that tree-ring studies show sprouted between 1800 and 1905. Those cottonwoods, and native willows, have mostly been outcompeted by aggressive exotics, especially tamarisk and camelthorn. Tamarisk was first noted near Winslow in 1909, but by the mid 20th century it had spread along the riverbed.

These rare wet areas are the only places where amphibians (true toads, spadefoot toads, tiger salamanders, and leopard frogs) can survive. These species exhibit fascinating adaptations to the extreme fluctuations in temperature, moisture, and salinity presented by intermittent water sources. Among invertebrates in the basin, unique species include the California floater (a freshwater mussel), the White Mountain water penny beetle, and long dash butterfly, found in Arizona only along East Clear Creek, a tributary of the Little Colorado.

One aquatic species, the introduced crayfish, has become a problem. Especially common in the upper

reaches of the Little Colorado, crayfish have altered plant and invertebrate communities in streams wherever they live. Likewise, introduced fish compete with unique native fish such as Apache trout, a minnow called the Little Colorado spinedace, the Zuni bluehead sucker, and the humpback chub. The Apache trout and Little Colorado spinedace are both targets of intensive recovery programs in the region's streams. For the endangered humpback chub, the remaining breeding grounds are the warmer backwaters at the mouth of the Little Colorado. Protection of the chubs' critical habitat has led to changes in the operation of Glen Canyon Dam upstream of Grand Canyon.

For birds, particularly migrating birds, the green ribbon of riparian habitat serves as an essential corridor. The endangered Southwest willow flycatcher, when present in the watershed, is completely dependent on this zone.

Like the larger Colorado Plateau of which it is part, the Little Colorado watershed contains a high number of endemic creatures, known only from the basin, along with ones identified as species of special concern. Botanical examples include Peebles Navajo cactus, gladiator milk vetch, Arizona willow, White Mountain paintbrush, Sunset Crater penstemon, and San Francisco Peaks groundsel. Among mammals are endemic subspecies of chipmunk, spotted ground squirrel, Botta's pocket gopher, silky pocket mouse, Ord's kangaroo rat, and Stephen's woodrat.

The Little Colorado River watershed is a region unto itself. It possesses internationally known geologic and paleontologic features, and numerous unique species and significant biologic wealth. The land is inseparable from the indigenous people who have lived here for generations, inseparable from their language, imagery, traditions, and religions. For these reasons, this watershed qualifies as a distinct part of the country, worthy of national heritage designation.

DISTINCTIVENESS OF THEME

The landscape of the proposed Little Colorado River National Heritage Area is one that has been familiar to people who have both lived in and traveled through the region. For Native Americans, it encompasses the San Francisco Peaks, arguably the singlemost important sacred mountain, the central landmark, in the religions of every group. Both nationally and internationally, the region is known among geologists and paleontologists for the extraordinary exposures of Mesozoic-aged rock and the fossil wealth sequestered in that rock. The geologic resources of the region have yielded fossil remains that have allowed a detailed reconstruction of a key time in earth's evolutionary history, the late Triassic. Further, the presence of extensive volcanic fields, and the impact feature Meteor Crater, brought attention to the region in the mid 20th century. Astrogeologists determined this landscape to be the closest analog to the terrain of the Moon, and so it served as an important "real-life" training ground for the Apollo astronauts. In addition, the extreme ranges of natural environments and climates led to formulation of the seminal biological concept of life zones. Though later modified by ecologists, the concept still offers a way to explain the interrelationships of climate and assemblages of plants and animals. In summary, all of these unique attributes

add up to a sound rationale for the worthiness of this region as a national heritage area.

RELATED RESOURCES

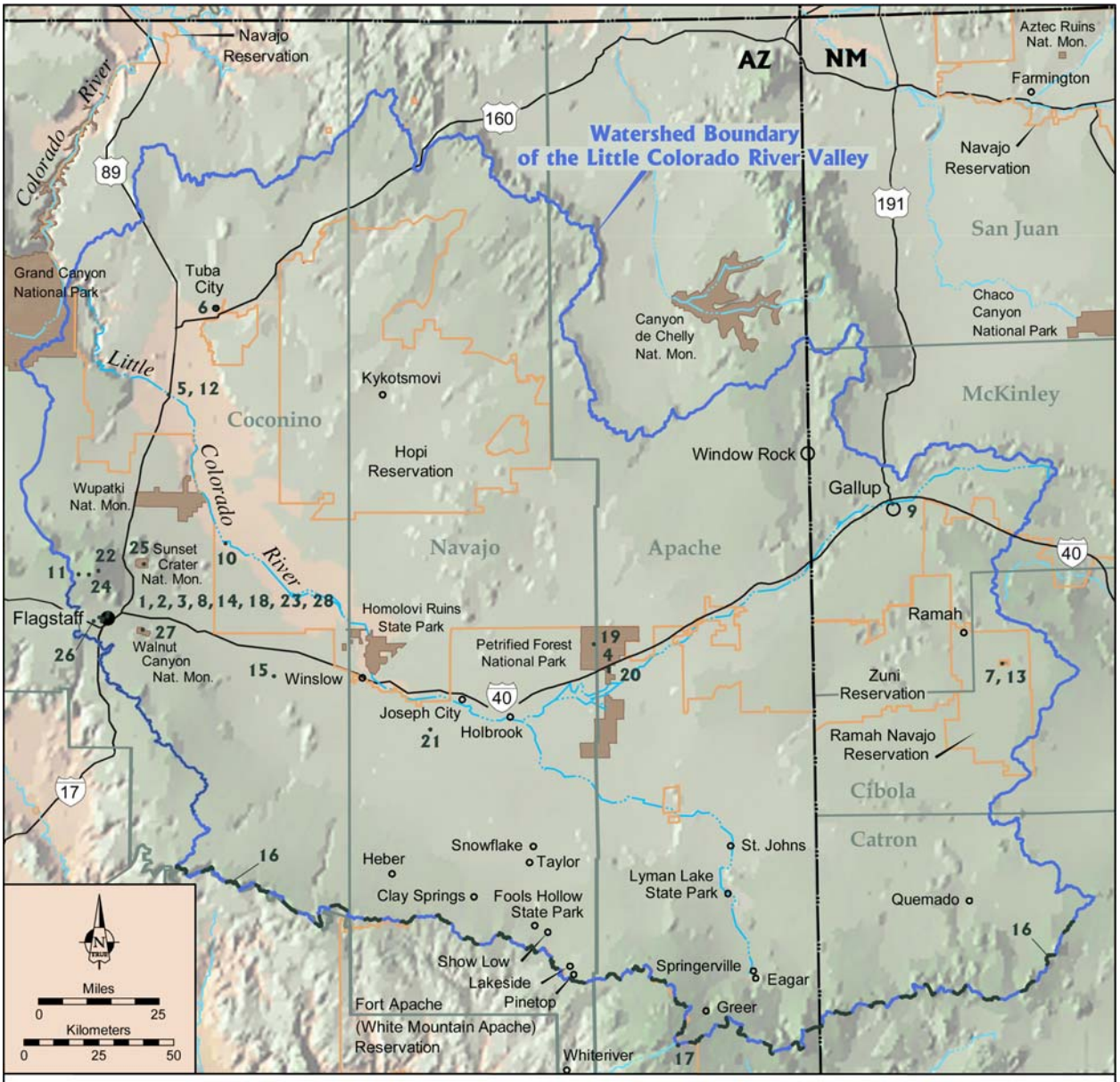
Visitors and residents of the Little Colorado Valley have many possibilities to experience and learn about the region's natural history. Three national forests—Apache-Sitgreaves, Coconino, and Cibola—offer several million acres of public land and hundreds of miles of backcountry roads. Forest district offices have good maps and knowledgeable people. National parks and monuments display and interpret the wealth of geology, paleontology, and biology resources. Among them are Petrified Forest National Park, and Sunset Crater, Wupatki, Walnut Canyon, and El Morro National Monuments, with scenic drives, trails, ranger programs, and exhibits. State parks in Arizona, Homolovi Ruins, Fool Holow, and Lyman Lake, and Red Rock State Park in New Mexico, offer hiking, camping, and interpretive opportunities. The Little Colorado River Gorge Navajo Tribal Park, operated by the Navajo Nation, offers overlooks of the dramatic gorge leading to the confluence of the Little and main Colorado Rivers and, for the brave, spectacular hiking. Arizona Game & Fish Department manages several wildlife areas, including Becker Lake, Chevelon Canyon, Sipe, Wenima, and White Mountain Grasslands. The Little Painted Desert County Park near Winslow contains bright exposures of the Chinle Formation. Meteor Crater National Natural Landmark has an interesting visitor center and rimside walk for a full view into the crater. The Museum of Northern Arizona in Flagstaff offers exhibits and trips into parts of the basin. The Nature Conservancy's Hart Prairie Preserve sits at the foot of the San Francisco Peaks, and The Arboretum at Flagstaff features native plants. Each Native American tribe generally has departments of fish and wildlife, natural resources, parks, or outdoor recreation that are good sources of information. Check Web sites of specific tribal governments: Hopi Tribe (www.hopi.nsn.us), Navajo Nation (www.navajo.org), White Mountain Apache (www.wmat.nsn.us), and Zuni (www.ashiwi.org). Maps and publications are available at visitor centers in parks and towns, local libraries, museum bookstores, trading posts, and outdoor shops.

RELATED RESOURCES LIST

- **1,000-yr. old junipers, New Mexico:** Some species of juniper can live to be more than 1,000 years old. Western New Mexico has numerous such awe-inspiring specimens in their forests.

- **The Arboretum at Flagstaff, Flagstaff:** Previously a working cattle ranch, the Arboretum's 200 acres now showcases plants native to the region and conducts ongoing research and education programs related to the natural flora and flora of the area. One research project in particular focuses on the Little Colorado spinedace fish.

- **Arizona Ethnobotanical Research Association, Flagstaff:** Founded in 1983, the Association promotes the study, documentation, and use of traditional plants from the American Southwest. It also promotes the development of bilingual and multicultural educational programs about plants, sustainable cultivation, the protection of natural habitats, the



Landscapes

1 Arizona Ethnobotanical Research Association
2 Biennial Colorado Plateau Conference
3 Buffalo Park
4 Dinosaur footprints and fossils
5 Dinosaur footprints and fossils
6 Dinosaur footprints and fossils
7 El Morro National Monument
8 Flagstaff Chapter of the AZ Plant Society
9 Gallup Public Library fine arts collection
10 Grand Falls on the Little Colorado
11 Hart Prairie (Nature Conservancy interpretive hikes
12 Little Colorado River Gorge
13 Los Gigantes
14 Lowell Observatory and dark skies
15 Meteor Crater
16 Mogollon Rim
17 Mt. Baldy
18 Native Plant and Seed
19 Painted Desert and Little Painted Deserrt
20 Petrified Forest
21 Rock Art Ranch
22 San Francisco Peaks
23 Save the Peaks Coalition
24 Scenic Skyride at the Arizona Snowbowl
25 Sunset Crater Volcano National Monument
26 The Arboretum at Flagstaff
27 Walnut Canyon National Monument
28 Willow Bend Environmental Center

development of a seed bank, and the creation of a medicinal plant herbarium.

- **Biennial Colorado Plateau Conference, Flagstaff:** This conference brings together land

managers, biologists, and other professionals to share information and develop better strategies to manage the natural resources of the Colorado Plateau.

- **Buffalo Park, Flagstaff:** This city park in Flagstaff offers uninterrupted and spectacular views of Mt. Elden and the San Francisco Peaks. Deer and other wildlife sightings are not uncommon.

- **Dinosaur footprints and fossils:** Found in several locations throughout the watershed (Petrified Forest National Park and Cameron and Tuba City Chapters are two well-known places), well-preserved footprints and bones have added significantly to scientists' understanding of the world during the dinosaurs' time.

- **El Morro National Monument, New Mexico:** A striking, 200 ft. sandstone bluff in western New Mexico with an important, ancient pool at its base. The Mesa Top Trail leads visitors to see the nearly-eroded rock layers at the top, to take in an incredible view of the surrounding landscape, to see the beautiful box canyon in the center of the bluff, and past the ruins of a sizeable pueblo.

- **Flagstaff Chapter of the Arizona Plant Society, Flagstaff:** The Arizona Native Plant Society promotes knowledge, appreciation, conservation, and restoration of Arizona's native plants and their habitats. The Flagstaff Chapter hosts a series of lectures and plant walks in the general area for the enjoyment and education of participants.

- **Gallup Public Library Fine Art Collection, Gallup:** Contains artwork that reveals the dynamic landscape of the region through a variety of media.

- **Grand Falls on the Little Colorado, Leupp Chapter:** A 190 ft. waterfall, dramatic for its height, the two distinct kinds of rock that converge at the site, the 90-degree turn of the Little Colorado River after the Falls, views of the San Francisco Peaks, the depth of scale of the gorge after the falls, and the chocolate milk color of the sediment-laden water which gives the Falls one of its nicknames, Chocolate Falls.

- **Hart Prairie (Nature Conservancy interpretive hikes):** Free, guided nature walks and hikes aid in peoples' understanding and appreciation of the geological and ecological features of the San Francisco Peaks.

- **Little Colorado River Gorge, Cameron Chapter:** The Little Colorado descends 2,000 ft. in just 30 miles as it approaches the mainstem Colorado. The massive sandstone walls that form the steep gorge are topped with limestone and reach 1,000 ft. tall in places. The gorge is the site of many ancient trails and is currently a Navajo Tribal Park and open to visitors.

- **Los Gigantes, Ramah:** Rock formations near Ramah, New Mexico that look like giant male and female figures. These "figures" are considered sacred by the Ramah Navajos and Zunis.

- **Lowell Observatory and dark skies:** Visitors to rural Arizona and New Mexico marvel at the night sky. Many long-time residents still do, too. With no major urban areas and few cities greater than 10,000 people, the night skies are both infinitely

dark and infinitely filled with stars. The experience of the night sky is as much a part of the landscape of the Little Colorado region as are its mountains and canyons. Pluto was discovered from Lowell Observatory in Flagstaff and the research institution holds regular public viewings through its historic telescope. Flagstaff is also has the distinction of being the first International Dark Sky City. Quality stargazing for the average viewer and amateur astronomy enthusiast alike only increases in the more rural areas.

- **Meteor Crater, eastern Coconino County:** Meteor Crater was the first meteor impact site in the world identified as such my modern science. A young Eugene Shoemaker reached this conclusion in 1960 after building on the work of the Crater's early owner, Daniel Barringer. It has continued to contribute significantly to the study of meteor impacts and was also used by Apollo astronauts to train for their landing on the Moon.

- **Mogollon Rim:** A 200-mile escarpment that runs basically east-west across eastern Arizona to the New Mexico border. It defines the southern boundary of the Little Colorado River watershed and the southern boundary of the larger Colorado Plateau. The elevation difference between land above and below the Rim is as much as 3,000 ft. The central section of the Rim is characterized by dramatic sandstone cliffs. The Rim is a major geologic feature and a major divide for plant and animal communities.

- **Mt. Baldy, Apache-Sitgreaves National Forest:** Mt. Baldy is a sacred site to the White Mountain Apache, as well as the source of the headwaters of the Little Colorado River.

- **National Forest and National Park Service interpretive programs and hikes:** Ranger-led hikes or interpretive trails on both National Forest and Park Service lands help local residents and visitors both to better understand the treasures they contain.

- **Native Plant and Seed:** A retail nursery that specializes in native varieties of plants. Also provides full-scale, native plant restoration services.

- **Painted Desert and Little Painted Desert County Park, Navajo County:** The current name is derived from the label Spanish explorers gave to the region, *el desierto pintado,* because of the brilliant colors of its rock formations. It is a geologic formation to the north side of the Little Colorado River that extends in a gentle curve from the western Navajo Reservation through the Petrified Forest National Park. The desert is mostly comprised of the Chinle Formation, formed up to 225 million years ago mostly through river deposits. When the sun is low in the sky, as at sunrise or sunset, the stripes of gray, purple, blue, green, red, pink, white, orange, and combinations of any of these, are at their most dramatic. The interaction of rising and falling watertables, various minerals, and layers of volcanic ash created the colorful canvas that is still in an active and dynamic state of erosion, exposing more dinosaur fossils and petrified wood on a regular basis. Little Painted Desert County Park in Navajo County is an excellent viewing area.

- **Petrified Forest:** Trees buried under sediment more than 200 million years ago are now re-emerging as sparkling rainbows of rock. Quartz replaced the wood, minerals added color, and now erosion is wearing off sediment that buried the trees in prehistoric times, exposing thousands of petrified logs and other fossils. Petrified Forest National Park preserves many logs in their natural state, but the actual extent of the range of the ancient forest extends well beyond Park boundaries into state, private, and tribal lands.

- **Rock Art Ranch, Winslow:** Chevelon Creek/Canyon passes through the ranch, containing a rich riparian habitat, numerous petroglyphs, and a chance for visitors to experience the delights of one of the region's many smaller, but still spectacular canyons.

- **San Francisco Peaks:** A former strato-volcano, the Peaks dominate the skyline for as much as 100 miles and the tallest of the peaks, Mt. Humphries, is the highest point in Arizona. The Peaks are sacred to the Navajo, Hopi, Zuni, and 10 other tribes. Traditional Navajo land, or Dinetah, is bound by four mountains in the four cardinal directions that represent the four pillars of a worldly hogan, the traditional dwelling of Navajos. The Peaks are the western mountain, known as Dook'o'sliid or the Abalone Shell Mountain. To the Hopi, the Peaks are known as Nuvatekiaqui and the home of rain-making kachina spirits. To the Zuni, they are known as Sunha K'hybachu Yalanne and are also extremely sacred.

- **Save the Peaks Coalition, Flagstaff:** An organization dedicated to addressing cultural and environmental rights, in particular protecting the San Francisco Peaks which are held sacred by the Navajo, Hopi, Zuni, and 10 other tribes.

- **Scenic Skyride at the Arizona Snowbowl, Flagstaff:** In the summer months, the Arizona Snowbowl ski resort, located on the southwest side of the San Francisco Peaks, still operates its lifts for panoramic viewing of the Northern Arizona landscape. Views extend for 70 miles and include the Grand Canyon. Coconino National Forest interpretive rangers meet riders at the top and discuss the biology and geology of the region.

- **Sunset Crater Volcano National Monument:** Sunset Crater is the youngest and least-eroded cinder cone volcano in the San Francisco Volcanic Field, making it and the surrounding landscape an ideal setting for the study of soil formation, plant succession, and other ecological processes following an eruption. The Monument consists of 3,040 acres of cinder cones, lava fields, lava tubes, and an ice cave.

- **Walnut Canyon National Monument:** Walnut Canyon is 20 miles long (the Monument contains 6 of these miles), 400 ft. deep, and ¼ mile wide. Its extremes of topography, along with seasonal water, result in a place of concentrated biological diversity. Hot desert climates and shady forest climates occur nearly side by side when in most places they would be separated by hundreds of miles or thousands of feet in elevation. Cliff dwellings more than 700 years old line one side of the canyon.

- **Willow Bend Environmental Center, Flagstaff:** A non-profit environmental education center

sponsored by the Coconino Natural Resource Conservation District dedicated to nurturing a sense of place through hands-on environmental education programs. The site contains five gardens with slightly different microclimates to display the variety of plants, insects, and animals found in the diverse Northern Arizona ecosystem.

PRIMARY REFERENCES

Arizona Heritage Program
n.d. Arizona Game & Fish Department. <http://www.gf.state.az.us>.

Brown, David E. (editor)
1982 *Biotic Communities of the American Southwest-United States and Mexico.* Special Publication of Desert Plants, Vol. 4(1-4). University of Arizona Press, Tucson.

Center for Sustainable Environments.
n.d. Safeguarding the Uniqueness of the Colorado Plateau. With Grand Canyon Wildlands Council and Terralingua. Northern Arizona University, Flagstaff.

Houk, Rose
1990 *The Painted Desert: Land of Light and Shadow*. Petrified Forest Museum Association, Petrified Forest National Park, Arizona.

Nabhan, Gary P., Marcelle Coder, and Susan J. Smith
2004 *Woodlands in Crisis*. Occasional Papers No. 2. Bilby Research Center, Northern Arizona University, Flagstaff.

Natural Heritage New Mexico
n.d. <http://www.nhnm.unm.edu>.

Sadler, Christa, William Parker, Sidney Ash
n.d. *Dawn of the Dinosaurs*. Petrified Forest Museum Association, Arizona.

Thybony, Scott
2006 *The Painted Desert: Land of Wind and Stone*. University of Arizona Press, Tucson.

Theme 2
Trails, Roads, and Rails of the West

SUMMARY OF THEME

The long and varied history of the Little Colorado River Valley has literally left its mark on the landscape. Well-worn paths of Native American farmers and traders, Spanish explorers, Mormon migrants, and Americans from the east can still be seen in the form of rock carvings, wagon ruts, and distinct overland trails. Sometimes, though, the trail cannot be seen because a modern travel corridor has been placed directly over the old, adding a new layer of history, with the distinct sign of its times, to a route that has stood witness to the passage of many generations. Walking a mile in another person's—indeed in another culture's or another time's—shoes is easy in the Little Colorado if one simply knows where to walk.

DESCRIPTION OF THEME

Native Trade and Travel Routes

The pre-Hispanic American Southwest was an active, dynamic region with people traveling near and far to trade, to procure special resources such as salt or obsidian, to establish productive farmland, and, not unlike the Spanish priests or Mormon settlers to follow, to fulfill religious or spiritual beliefs. Major and minor routes, traveled by foot in days before Spanish horses, linked people living in the Little Colorado River Valley to each other and to trade and cultural centers outside the region. Material items such as seashells and macaw feathers from present-day Mexico traveled as far north as the Hopi Mesas. Perhaps the single most influential item to make the journey north from the Mesoamerican heartland, aside from the people themselves, was corn. First domesticated in Mexico roughly 10,000 years ago, corn spread across the North American continent as far as present-day Maine. The Hopi and Zuni perfected varieties of this plant, and complimentary farming methods, to fit the unique climate of the Little Colorado high desert.

Hopi and Zuni are Pueblo Tribes with extensive oral histories of where people came from and how they came to be where they currently are. Both Hopi and Zuni beliefs tell of three previous worlds before people emerged into the current Fourth World—the place of emergence being at the confluence of the Little Colorado and (big) Colorado Rivers. According to some Hopi histories, Spider Grandmother told the newly-emerged people they must begin migrating four days after their emergence. The purpose of the migration was to teach them about this new world. The group was divided into smaller groups and a mocking bird assigned them different directions to pursue. Taking further directions from natural signs such as shooting stars, sun rays, red clouds, and birds flying in formation, the groups continued their migrations, sometimes criss-crossing each other's paths at different times, until they all eventually arrived at the Hopi Mesas. Masawu, the original inhabitant of the Fourth World and Owner of the Fire, lived at the Mesas but said he was willing to let the people live there in harmony if they lived a proper life. Different clans migrated in different directions and for

different lengths of time before arriving at the Hopi Mesas, and it is difficult to say exactly how far or for exactly how long the migrations occurred. It is quite evident, however, that the experience of migration features prominently in Hopi religion and beliefs and, because of archaeological remains, that much of the migration did occur in the Little Colorado River Valley.

The migrating groups received their clan name while on these journeys. For example, the Bear Clan received its name when the group came across a bear carcass and paused to reflect on its meaning. The group leaders determined that this symbol meant they were to be now known as the Bear Clan. Another migrating group came upon the same bear carcass at a later time. They cut straps from the hide to use for carrying heavy loads, and subsequently became known as the Strap Clan. Still later, another group came to the place of the bear carcass and saw a bluebird eating its meat and named themselves the Bluebird Clan. At least four additional clans acquired their name from migrating past this same bear carcass at different times. Clans left a record of their routes by carving their clan symbol into rock faces as they traveled. They also carved pictorial records of major events or sometimes the signs they used to determine their routes into rock as well. In this way, petroglyphs are a real account of clan history.

A portion of one Hopi migration trail, the Palatkwapi Trail, survives to this day and is designated as a Historic Trail of Arizona by Arizona State Parks. The modern trail connects Walpi Village on Second Mesa to the city of Winslow, but in the time of the migrations would have extended much farther south. Another designated Historic Trail of Arizona, the Zuni-Hopi Trail, connects the pueblos of Zuni and Hopi and runs across many of the eastern tributaries of the Little Colorado.

Zunis also have extensive oral histories regarding the migrations early people took before arriving at the Middle Place, the general region of the present-day Zuni Reservation. One significant event during these migrations took place on the Little Colorado River. Mothers were crossing the River while carrying their children on their backs. As they crossed, the children transformed into water creatures (frogs, lizards, turtles, and so forth), went to the bottom of the river, and formed the Council of the Gods. The place is known as *koluwala:wa* and marks a pivotal moment in Zuni pre-history. Zunis continue to make pilgrimages there every four years and it is believed that a person's spirit travels back to *koluwala:wa* upon his or her death.

Salt is a necessary mineral for human health and Native Americans would travel great distances to obtain it where it naturally occurred on the landscape. Salt, and the journey to get it, was and is associated with deep spiritual meaning. Zunis have a specific place in northern Catron County, New Mexico, known as Zuni Salt Lake, where they have traveled for centuries. There is also a salt cave near the confluence of the Little and main Colorado Rivers that has been an important site to Navajos, Hopis, and Paiutes. The trail leading to the cave follows a canyon whose name, Salt Trail Canyon, reflects the significance of its route. In Navajo belief, the cave is the place where Salt Woman emerged onto the earth and it is also the place where Changing Woman, who created the four original Navajo clans from her own body, met Salt Woman.

Trails to reliable water sources are also of extreme importance. Blue Spring feeds the Little Colorado River about 11 miles above the confluence and is a year-round source of high quality water in very arid country. Waterhole Canyon Trail and Blue Spring Trail are two Navajo trails from the east that lead to this important site. *Tó bichi'o'ooldon, Tó bihooyéé',* and *Dá'ák'óózhi kó'* are all primarily Navajo trails that lead to tributaries of the western portion of Little Colorado River. Countless other trails across all three reservations have led the way to water for generations upon generations of families. The Zuni-Acoma Trail, which connects the two pueblos, passes the waterhole at the base of the 200 ft sandstone bluff now known as El Morro National Monument. It was the only year-round water source on the journey. El Morro contains more than 2,000 petroglyphs and inscriptions from those who lived near or traveled by.

One trail of extreme significance to the Navajo is one they wish they never had to take—the Long Walk. Raids between Navajos and other residents of New Mexico and Arizona Territory were routine, each ethnic group alternately playing the role of perpetrator and victim. The U.S. Government viewed these raids as a major deterrent to further European-American settlement and development of the region. In an attempt to establish control, Kit Carson began a scorched-earth campaign in 1864. With their crops burned and livestock slain or taken by the military, people had little choice but to follow the army to Ft. Sumner (Bosque Redondo) on the Pecos River in eastern New Mexico. Although imprisoned, they would at least have something to eat. The journey was hard and between 300 and 500 miles long depending on where in the region a particular family made their home. After four desperate years in terrible conditions, the Treaty of 1868 was signed and the government created a designated Navajo Reservation. Approximately 2,000 to 3,000 out of a population of 8,000 to 9,000 never returned, however, having died either on the way to Bosque Redondo or during the time there. On the return journey, people stopped for a short while at Ft. Defiance, Arizona to receive the allotment of sheep—2 for every man, woman, and child—the government gave them to start their lives anew.

Spanish Exploration

Friar Marcos de Niza, his guide Esteban, and a small group of others were the first known Europeans to travel into the Little Colorado River watershed. They were on an expedition in 1539 to find the alleged Seven Cities of Cibola, also known as the Seven Cities of Gold. Esteban went ahead of de Niza and reached the Zuni pueblo of Hawikku, where he was reportedly killed. Upon his return, De Niza reported that he saw "Cibola" (Hawikku) from a distance and he continued to support the myth of the cities of gold. Francisco Vasquez de Coronado, governor of the territory in New Spain where de Niza lived (the present-day Mexican states of Jalisco, Sinaloa, and Nayarit) then decided to go for himself. Mounting an incredible force of several hundred men, Coronado set out in 1540. He reached Hawikku and, when the people there refused his demands for food and other supplies, he used force. During his time with the Zunis he dispatched a scouting expedition led by Pedro de Tovar to the Hopi Mesas, hoping to find the "real" cities of gold there since Hawikku proved not to be it. Tovar reported that there were no golden

cities on the Mesas either, but that he did learn of a great river to the north. Hoping to find a water route to southern New Spain, Coronado then sent another scouting expedition led by Garcia Lopez de Cárdenas to investigate. Cárdenas, led by Hopi guides, became the first European to see the Grand Canyon. Native Americans had long been traveling to and in the canyon to collect various resources, make offerings, or trade with other tribes. Cárdenas, however, found its ruggedness so frustrating that his unfavorable report dissuaded further Spanish exploration for 200 years. Coronado then continued north and east as far as present-day Kansas, still in search of the Seven Cities of Cibola.

Juan de Oñate also passed near Zuni in 1605 and left his inscription on El Morro. Oñate originally came to present-day New Mexico in 1598 to establish permanent settlements in the Rio Grande Valley. He made this inscription during a return trip to Mexico City.

Fathers Silvestre Velez de Escalante and Francisco Dominguez set out from Santa Fe in 1776 to try and establish an overland route to California since no east-west waterway exists. They essentially completed a loop, traveling northwest through Colorado to Great Salt Lake, Utah. A fierce October blizzard convinced the weary expedition to return to Santa Fe, which they did by taking a southeasterly course through Ganado, Arizona and stopping in Zuni in late November before reaching Santa Fe.

Spanish exploration of the Little Colorado region was part of a larger legacy of Spanish influence in the entire American West. Spanish missions were established at both Zuni and Hopi and the Spanish dramatically altered the lives of all Native Americans. Spanish influence was negative in terms of the brutality employed in an attempt to force people to adopt the Catholic religion or accept Spanish rule, but also positive in terms of the introduction of new crops, horses, and other farm animals.

The Ramah Museum in Ramah, New Mexico, documents the hardiness and history of the Mormon settlement and its settlers.

Mormon Migration South

Although they believed in a different God and used different criteria for guiding their movement, the Mormons, too, migrated through the Little Colorado River Valley due to religious reasons and directives. In 1844, the religion's founder, Joseph Smith, described a Mormon future that flowed over both American continents, North and South. The concept of Manifest Destiny reached its height in the Anglo-American mindset during the 1840s. Smith's vision of settlements of Saints in Mexico and beyond was the Mormon version of that dream and came to be understood as a natural unfolding of God's will.

Starting in 1858, Jacob Hamblin visited the Hopi Mesas and scouted trails through canyons and made note of the best river crossings and water sources in the southern Utah and northern Arizona region. In December 1872, Brigham Young sent a party of 14 men to explore both the Little Colorado and Verde Rivers. In April 1873, a mission of approximately 100 people set out with the intent of establishing settlements along the Little Colorado. The mission's president, Horton Haight, reached the Little Colorado River south of the Hopi villages of Moenkopi in late May, explored it for 120 miles, and declared it unfit for settlement due to obvious signs of flooding, no suitable place to dam, and

lack of wood or rock for building. Wrote Andrew Amundsen, a Native Norwegian and member of that mission, in his diary:

> *From the first we struck the little Collorado…, it is the same thing all the way, no plase fit for a human being to dwell upon. In case of hie water the bottoms are all flooded, [there is] no plase for a dam for if we could get plenty of water it would back op about 6 or 8 miles op the River and the Cottonwood is so scrubby and crukked so it would only be fit for fierr wood. No rock for bilding, no pine timber within 50 or 75 miles of her. Wherever you may luck the country is all broken up. The moste desert lukking plase that I ever saw, Amen.*
> (Peterson 1973:12)

Despite these initial setbacks, church leadership would not abandon the dream of their founder or will of their God and another exploration party was sent to the region in late 1875. In 1876, two colonies, whose intent it was to serve the local Native populations, were established along the Little Colorado River: Moenkopi and Savoia (modern-day Ramah). The call to serve one's mission continued and at least six more settlements were started between 1877 and 1878. In the fall of 1878, the apostle Erastus Snow made a trip from Utah to visit the fledgling communities. Just before Snow's arrival, William Flake bought the homestead of James Stinson, whose claim included a sizable and well-grassed portion of Silver Creek Valley till its confluence with the Little Colorado, but Flake's individualistic actions drew sharp criticism from other Mormons. Knowing Snow was on his way and believing he could convince him of the wisdom of his purchase, Flake traveled north to intercept Snow and make his case. Snow approved and agreed to map out a townsite plan for the new community of Snowflake. Snow also directed local leaders to negotiate the purchase of the town of St. Johns. Though relatively few in number, other European settlers had either established themselves or laid claim in various locations in the Little Colorado region prior to the Mormons' arrival. While some Mormon settlements, such as Joseph City, Brigham City, Obed, and Eagar, were established by Mormons themselves, a number of others were bought, as in the case of Snowflake, St. Johns, and the community of Erastus next to Concho. Purchases were often effected with a combination of cash and high quality Utah cattle.

The settlers traveled a path that was becoming more well-defined with each mission caravan or drive of Utah cattle. The missionaries made their way from their various locations in Utah and often made a stop in St. George to visit the temple before the final drive to Arizona Territory. Crossing the (big) Colorado River at Lee's Ferry, they made their way to the villages at Moenkopi and then followed Moenkopi Wash to the Little Colorado River. Once at the River, they followed it upstream to modern-day Holbrook and the confluence with the Rio Puerco. From there, some followed the Rio Puerco to the northeast, some went south along Silver Creek, and some continued along the main Little Colorado to St. Johns and places higher in the White Mountains.

This route, portions of which were used previously by area tribes to trade with each other, became known as the Mormon Wagon Road or the Mormon Honeymoon Trail and is another designated Historic Trail of Arizona.

Modern-day Highway 89 follows the approximate course of the Wagon Road from Moenkopi north to Lee's Ferry and continuing to Jacob's Lake and Fredonia to the Utah border.

The nickname "Honeymoon Trail" was coined by Arizona historian Will Barnes who lived along the Little Colorado River in the 1880s and witnessed the movement of Mormons north and south along the Road. In addition to the normal traffic of trade goods, family visitors, and new missionaries, many newlyweds traveled the Road. Sometimes the call to a mission hastened a wedding before departure, as is evidenced by this letter included in an 1871 diary entry of John Pulsipher.

> *I think much of the short, but happy acquaintance we have formed, and if you would not think me rude or in haste I would like to hear from you soon. As we live in these days of short prayers, short sermons, and short courtships, I would like you to write me a plain mountain English letter and tell me truly, if you think it would be best and proper for us to be joined in marriage? Do you think enough of me, almost stranger as I am, to choose me before all other men that live? If you was satisfied to say yes, how long a time would you want to close up your business and be ready for a mission to the South?"*
> (Peterson 1973:50)

Sometimes, too, the couple met in the settlements of Arizona but, lacking any temple in the Territory, traveled north to the temple in St. George to have their marriage sealed and then traveled the Road back again as newlyweds to their home in Arizona.

By 1880, most of the Mormon settlements that were to be in the Little Colorado River Valley had been established and the ensuing decades saw the effort to solidify the claims and keep the towns alive. The settlements relied heavily on ranching and crops or, for those higher in the White Mountains, on ranching and lumber. Townspeople habitually constructed dams to try and manipulate the Little Colorado to their purposes—the lake at Lyman Lake State Park between St. Johns and Springerville, for example, was begun by a Mormon dam—but the river habitually broke them. In times of need, supply wagons from Utah, traveling the same route the settlers had taken themselves, fortified the struggling communities. Not every town survived, but many did and Mormon presence and influence in the Little Colorado River Valley remains strong to this day.

East-West Corridor

Modern-day I-40 crosses the entire Little Colorado River watershed for X miles in a neat east-west direction. The city of Gallup, county seat of McKinley County, New Mexico, the City of Holbrook, county seat of Navajo County, Arizona, and Flagstaff, county seat of Coconino County, Arizona, all sit squarely on I-40's course. State Route 87 in Arizona, leading to the Hopi capital of Kykotsmovi, and Indian Route 12 of Arizona, leading to the Navajo capital of Window Rock, also connect directly to I-40. I-40's course, however, was a major east-west travel corridor long before its completion in the late-1980s, long before President Einsenhower's vision of a national interstate system, long before the invention of the horseless carriage, and long before this part of the country was annexed to the United States as part of

the Treaty of Guadalupe Hidalgo following the Mexican-American War. I-40 follows the same corridor as Route 66, which in turn followed the same corridor as the Atchison, Topeka & Santa Fe Railroad, which followed the same corridor as the Beale Wagon Road, which followed the expedition routes of Lieutenant Amiel Whipple, Captain Lorenzo Sitgreaves, and Captain Randolph Marcy. The entire original length of the Route 66 corridor, which became I-40 from Oklahoma City to Bartsow, Calif., is more than 2,400 miles and ran from Chicago to Los Angeles. Different sections of this route have different histories, but various major sections were undoubtedly developed by Native Americans as the first Europeans to explore the region either used Natives as guides or consulted with them when they made their own routes.

With the annexation of entire modern-day California, Nevada, and Utah and parts of modern-day Arizona, New Mexico, Colorado, and Wyoming as a result of the 1848 Treaty of Guadalupe Hidalgo, there was a desire of the U.S. Government to survey the lands to see exactly what they had. The finding of gold in California that same year added more than a little to the feeling of urgency to establish east-west routes across the new part of the nation. In 1849, Captain Randolph B. Marcy made the first U.S. Government-sponsored expedition of the region. In 1850, California achieved statehood and one of its two Senators, William Gwinn, began pushing Congress for an east-west railroad to link the new state to the rest of the country. In 1851, another military-sponsored expedition, led by Captain Lorenzo Sitgreaves, explored the region. Sitgreaves hired trader Antoine Leroux who knew of a trail that went northwest along the Little Colorado River from Zuni to the San Francisco Peaks (near modern-day Flagstaff) and then bore west across the Black Mountains to the Colorado River. Senator Gwinn was not the only one pushing Congress to establish railroads and the political climate of the 1850s was already showing the North-South factionalism that would lead to the Civil War. Gwinn championed a railroad along the 35th parallel, citing the report made by the Marcy expedition that the route was the most-suitable in terms of grade and climate, but Congress would not tolerate the development a single route, especially a southern one. In 1853, it was decided that five routes should be explored, of which the 35th parallel would be one. Yet another military expedition, this one with the specific purpose of establishing a route suitable for a railroad, was sent and this time Lieutenant Amiel Whipple was in charge. He, too, hired Leroux and traveled the Little Colorado River from Zuni to the San Francisco Peaks. Whipple's report, published in 1855, inspired the desire for an east-west wagon road in addition to a rail route. In 1857, the U.S. Government sent Lieutenant Edward Beale to establish such a road and to test the viability of using camels for transport in this desert region. Beale and his camels made a summer departure from Fort Smith, Arkansas and, largely following Lt. Whipple's course, reached Los Angeles by Christmas. The next year, Congress approved $150,000 to improve the route and Beale set out with 100 men to construct the first federally funded highway across the Southwest and, inadvertently, set the course for the future railroad, Route 66, and I-40.

The Atchison and Topeka Railroad began with the dream of Cyrus K. Holliday and an 1859 charter for a railroad to go between the towns of Atchison and Topeka, Kansas. His

desire was to tap into the lucrative trade along Santa Fe Trail that spanned from St. Louis, Missouri, across Kansas, to Santa Fe, New Mexico. In 1863, the company was reorganized and acquired the name under which it became famous, the Atchison, Topeka & Santa Fe Railroad (ATSF). Railroad building was a risky and cut-throat business, with companies constantly on the brink of bankruptcy and constantly fighting over land grant rights. The Atlantic & Pacific Railroad (A&P) experienced financial trouble after the Panic of 1873 and its land grant rights along the 35th parallel, which had been granted to it by the U.S. Government in 1866, came to be controlled by the St. Louis and San Francisco Railroad beginning in 1876. Intense negotiations between ATSF and the St. Louis and San Francisco finally led to an 1880 agreement allowing the ATSF, which now extended to Albuquerque, New Mexico, to jointly develop the route with A&P west to California. The railroad that passed from Albuquerque through Arizona was known at the time as the A&P, but ATSF gained total ownership by 1907.

Top: A mural in downtown Winslow documents the impact the railroad has had in the community over the past century. Bottom: Retired Santa Fe cabooses now grace a downtown park in Winslow, Arizona.

Three modern-day cities in the Little Colorado watershed reflect this complicated history: Gallup, New Mexico is named for David L. Gallup, an auditor and paymaster of the ATSF; Holbrook, Arizona is named for H.R. Holbrook, an Atlantic & Pacific engineer who worked on the route in this region; and Winslow, Arizona is named for Edward G. Winslow who was the president of the St. Louis and San Francisco. Holbrook and his ASTF counterpart, engineer Lewis Kingman (for whom Kingman, Arizona is named) used Lt. Whipple's expedition notes to survey the route from Albuquerque, New Mexico, across the Little Colorado River watershed, to the Colorado River. In August 1883, a bridge across the Colorado River at Needles, California was completed and from there the ATSF connected to railroads already established in that state, thereby effectively completing their route from the mid-section of the country to the Pacific Coast.

The first person rode the original Kansas portion of the ATSF in 1869, beginning a 103-year history of passenger service until AmTrak took over all passenger operations in the county in 1971. Although ATSF was originally built as much for freight traffic as it was for passengers, it was its various passenger amenities that made it famous.

In 1876, English immigrant Fred Harvey leased ATSF's Topeka Lunch Counter believing he could revolutionize the eating experiences of

rail travelers and workers alike. Having a background in both restaurants and railroads, Harvey eventually landed a position with the Chicago, Burlington & Quincy Railroad. He traveled the railroad extensively and knew first-hand the deplorable conditions of restaurants and hotels in most small Midwestern towns.

The Chicago, Burlington & Quincy was not interested in Harvey's ideas to improve these services, so he approached ATSF. After his initial lease of the Topeka Lunch Counter, ATSF officials became nervous. The quality of the food was so good that growing demand from rail passengers and locals alike required an expansion of the facility. ATSF officials feared passengers would be so enamored with their experience that they would not continue farther west. The solution: allow Harvey to open more such places farther down the line.

"Harvey Houses," sometimes a restaurant, a hotel, a train station, a newsstand, or any combination of these, became known for their impeccable quality, comfort, and service. Beginning in 1883, Harvey started employing young, unmarried women to be waitresses in his restaurants to the exclusion of men, a socially unusual practice for the day. Their uniforms consisted of near floor-length, long-sleeved black dresses under starched white aprons—a clear contrast to the dress of the only other single women found in quantity in the West, the "soiled doves" of the saloons and brothels.

These waitresses became known as Harvey Girls and their training in manners and service gave an air of east coast sophistication to the entire operations of the ATSF, Fred Harvey Company, and the West. The national impact of Harvey Houses, and especially the waitresses, was so great that MGM made a 1946 movie entitled *The Harvey Girls*. It was set in a fictional town in western New Mexico, starred Judy Garland and Angela Lansbury, and at the end of the movie the male and female lead have fallen in love and are traveling to Flagstaff to start a new life.

Earlier Harvey Houses, such as the one that opened in Holbrook, Arizona in 1884, were built for railroad employees or as mealtime stopovers for passengers. After 1900, ATSF management saw an opportunity in establishing resort-like hotels to encourage passengers to lengthen their stays in particular places or to give those visitors the impetus to make a trip in the first place. Mary Elizabeth Jane Colter became the primary interior designer and occasional architect for these resorts, combining Native and Spanish architecture into buildings that came to define the spirit of the American West.

After the unexpected death of her father, Colter persuaded her mother to allow her to attend the California School of Design so she could become a qualified art teacher and support her mother and sister. While in school, Colter also apprenticed in an architect's studio, an experience that would serve her well later in life. Upon her graduation in 1890, she returned home to St. Paul, Minnesota and taught high school art. She also took archaeology classes during this time for her own pleasure.

A visit to a friend in San Francisco, a friend who worked in a Fred Harvey gift shop, eventually led to a job offer in the summer of 1902. Fred Harvey had died in 1901 and the company was

now managed by his two sons and one son-in-law. They saw the potential in marketing Native arts and crafts to train passengers and wanted Colter to arrange the interior decorating for the new Indian Building that was being erected next to the new ATSF station in Albuquerque. The Indian Building served as museum, artists' demonstration studio, and gift shop all in one. The job was temporary, and after the building opened Colter returned to St. Paul. In the summer of 1904, the Fred Harvey Company called upon Colter again, this time to design the entire building, not just the interior, for the Hopi House that was being built across from the El Tovar hotel at the south rim of the Grand Canyon. Hopi House was the first of eight buildings Colter would eventually build in the future National Park. In 1910, the Fred Harvey Company offered her a permanent job.

Colter would design or decorate 22 buildings for the Fred Harvey Company between her first in 1902 and her last in 1949. Three of these were to be in the Little Colorado River watershed, including the one she considered her masterpiece, La Posada, in Winslow, the home city of ATSF's Arizona headquarters. La Posada was an elegant hotel, train station, restaurant, and gardens all in one and Colter had complete design control over every detail down to the china patterns and maids' uniforms.

Begun in 1929 before the stock market crash, no expense was spared. Colter conceived of a history for the building—it was the hacienda of an old Spanish family who had lived in it for several generations and filled it with fine arts from their worldly travels and sturdy folk furniture made by their ranchhands—and designed it accordingly. Colter set up furniture-making studios in some of the rooms during construction to get exactly the style and look she wanted, designed the frames for pictures of San Ysidro (the patron saint of the hotel) that went in every guest room, and put a broken ox cart of the type commonly used in the desert a century earlier in the cactus garden.

La Posada opened on May 15, 1930 and was a base of operations for another of the ATSF's passenger amenities, the Indian Detours. Indian Detours were small, guided auto trips to surrounding attractions. The first Detours were offered out of Las Vegas, New Mexico beginning in 1926. These tours took travelers to several ancient pueblo sites, contemporary pueblos, and included stops at Harvey establishments in Albuquerque and Santa Fe. Indian Detours operated out of La Posada went to Grand Canyon, Petrified Forest, Painted Desert, the White Mountains, and the Hopi Reservation.

Upon the 1957 announcement of the closure and sale of La Posada and the auction of its furnishings, Colter is reported to have said "There is such a thing as living too long" (Grattan 1980:111). Three months later, her El Navajo hotel in Gallup, New Mexico was torn down. Colter had hired Navajo artist Sam Day, Jr. to design sand paintings for the interior décor and El Navajo was the first place this type of art, which is traditionally temporary and used only by trained medicine men in healing ceremonies, was allowed for permanent public view. La Posada, although up for sale and largely gutted, narrowly escaped the fate of El Navajo. When no buyers presented themselves, ATSF turned the building into crew offices. Then, after a number of years, the railroad closed the offices and abandoned the building

completely. As with many Harvey Houses, La Posada had been popular with locals as well as travelers. A number of Winslow residents formed a group called the Gardening Angels and took care of the grounds the best they could considering it was an abandoned property. Their efforts saved many of the original trees and other plants at La Posada and likely deterred significant vandalism to the property as well. Several members of this group joined with others and formed the La Posada Foundation to find a way to save La Posada from the imminent wrecking ball. The building was finally purchased in 1997 by Allen Affeldt and the lengthy process of restoration began. The hotel is once again filled with overnight guests, the restaurant serves meals of true quality, and it has become a popular meeting place filled with activity. A group called the Winslow Harvey Girls, some of whom are descendents of actual Fred Harvey Company employees, give guided tours of the hotel in full Harvey Girl uniform.

Colter's third Little Colorado building, for which she served as interior decorator in 1947, is the small and charming Painted Desert Inn at Petrified Forest National Park. The building achieved National Historic Landmark status in 1987. It features murals by renowned Hopi artist Fred Kabotie whom Colter first commissioned to paint Hopi ceremonial scenes in the Watchtower in Grand Canyon National Park. Kabotie painted three murals inside the Painted Desert Inn including one that depicted an important trail Hopis traditionally took between the Mesas and Zuni to obtain salt. Painted Desert Inn was closed for many years after the Fred Harvey Company ceased it operations at Petrified Forest, but was reopened for the nation's bicentennial in 1976 and has remained open ever since except for a short period between 2004 and 2005 when it underwent major restorations. Although it no longer offers meal service or overnight accommodations, it still offers visitors a comfortable and spectacular view of the Painted Desert and a tiny glimpse into the Hopi culture through Kabotie's murals.

Colter designed La Posada's front entrance facing south to the ATSF tracks. Today, the front entrance faces north to a Winslow city street known as 2nd Street, or in previous decades, as Route 66. La Posada's unique physical position that joins the railroad and The Mother Road is but a metaphor for the entire history of the two travel corridors. Like the ATSF, Route 66 runs the entire 210-mile east-west length of the Little Colorado River watershed.

Route 66 was and is the culmination of some of the most dramatic social and economic conditions ever to take place in the United States. Picking up where the previously-discussed Native, Anglo-explorer, wagon, and railroad history of its corridor leave off, Route 66's nascent beginnings as an auto road began with the organization and designation of the National Old Trails Road. The idea for this road came from the Daughters of the American Revolution who proposed the development of a national motor route in time for the 1915 Panama Exposition to be held in San Francisco. As the name suggests, this was a route that ran across the entire nation from New York to California and was comprised of many smaller regional routes including the original National Road authorized by President Jefferson in 1808, the Santa Fe Trail, and the route of the ATSF. Most of the National Old Trails Road from Santa Fe to Los Angeles would become Route 66.

In the early 1920s, the federal government began to respond to public pressure and the proliferation of named, regional routes by attempting to organize and standardize road travel throughout the country. For more than two decades, car owners had been forming local auto clubs and developing and naming regional routes. A growing post-WWI economy meant that more and more Americans were buying cars, joining clubs, and establishing even more routes—approximately 250 such routes existed before roads were organized nationally. The American Association of State Highway Officials met in 1925 and formed the Joint Board of Interstate Highways whose job it was to develop the first comprehensive national highway system. It was a member of this board that suggested the current numbering system still in place today: odd-numbered routes travel north-south, even-numbered routes travel east-west, and routes ending in either 5 or 0 are considered primary routes.

Cyrus Avery, an Oklahoman and member of the Joint Board, proposed a Chicago to Los Angeles route to pass through Oklahoma City and a 1925 map produced by the Joint Board shows such a route named as Route 60. The route follows the Atlantic & Pacific Railroad corridor from Chicago to Oklahoma City and joins the ATSF corridor at Santa Fe. This same map also shows Route 62 branching off from Route 60 at Springfield, Missouri and running the east-west length of Kentucky to Newport News, Virginia. This upset Kentucky Governor William J. Fields, who was unyielding in his demands that his state should have a primary route. The debate went on for months until it was finally agreed on April 30, 1926 that the Chicago to Los Angeles route would be Route 66.

Avery formed the Highway 66 Association from a group of businessmen to promote Route 66 as a tourist road from the very beginning. Its first president, John T. Woodruff, called Route 66 "America's Main Street." The title was a publicity stunt, but was also based in reality. From the beginning, Route 66 was designed to link rural towns to each other and to their urban counterparts for the enhancement of rural economies. The first major event for the Association and for all of Route 66 was a nearly 3-month footrace held in the spring of 1928 from Los Angeles to Chicago and then on to New York City.

With the stock market crash of 1929 and the ensuing Dust Bowl and Great Depression, Route 66 became a road of desperation and hold-out hope as opposed to a road of fun and frivolity. John Steinbeck's famous 1939 novel *The Grapes of Wrath* and subsequent 1940 movie by the same title captures the essence of the flight an estimated 200,000 Midwesterners took as the wind literally swept their farms away from them and California seemed like their only chance at a job and survival. It was Steinbeck who first called Route 66 "the mother road," a moniker that endures to this day. Very few of those who made the journey stayed in California, however, and they likely traveled Route 66 again in their plight elsewhere. Route 66 symbolized hope for a job for displaced farmers during the 1930s and meant a real job for many young men who were part of President Roosevelt's Civilian Conservation Corps or Works Project Administration. Both organizations focused heavily on road improvements, and by 1938 the entire length of Route 66 was paved when less than half of it, mostly in California, Illinois, and Missouri, had been paved just 10 years earlier.

Little tourist traffic was seen on Route 66 during the 1930s or during the gas- and rubber-rationing war years of the early 1940s. The post-WWII era, however, even more so than the post-WWI era, was a time of economic growth for the country. The increase in material possessions, such as cars, and the increase in wealth and leisure time as America transformed from a rural agricultural and laborer society to an urbanized technological society is a well-noted phenomenon among social and economic historians. This combination, along with exuberance from winning the war, meant that America was on the move. It was in this spirit that Bobby Troup, a recently-returned WWII veteran, and his wife Cynthia hit the road in Pennsylvania in February 1946 to make a life for themselves in California. On the way, they wrote a song that was recorded and released within a few weeks after their West Coast arrival as "Get Your Kicks on Route 66" by Nat King Cole. Later recordings were also made by Chuck Berry and the Rolling Stones, bringing the road built in the Roaring Twenties and first made famous during the Depression firmly into the age of rock and roll.

The 1950s and 1960s saw the rise of a new generation. The prosperity and comforts of the post-war era also resulted in homogenization and conformity, something with which the emerging generation found fault. Roads to them were a form of rebelling, a symbolic and literal means of getting away from cultural norms they did not embrace. Jack Kerouac's novels, especially his 1957 *On the Road,* are as revealing of this national phenomenon of the 1950s as Steinbeck's *Grapes of Wrath* was of the Dust Bowl plight of the 1930s. The myth of the open road symbolizing endless possibilities was becoming more fixed in the American mindset as this new generation added it own chapter. The 1969 movie *Easy Rider,* conceived by Peter Fonda and Dennis Hopper who also starred in its leading roles, was largely filmed on Route 66. The film received standing ovations at the Cannes Film Festival that year, adding yet another layer to the rebellious and distinctly American image of the road as the way to greater freedom, personal discovery, and a better life.

The 210-mile Little Colorado River watershed section of Route 66 shares the history of the entire road. Route 66 is still essentially main street in Gallup, Holbrook, Joseph City, Winslow, and Flagstaff and the road runs through the Navajo Chapters of Manuelito, Lupton, Houck, Red Rock, and Iyanbito. Along the Little Colorado section of Route 66, one can see traditional Navajo hogans, the vast open ranges and spectacular rock formations that define the Southwest landscape, and an array of architectural gems that tell Route 66's story both as a town Main Street and as a major tourists' highway. Though too many to detail one by one, a sampling of notable structures includes the following. The beautiful 1928 El Morro Theatre in Gallup is a local treasure and the only Spanish Eclectic style building in the watershed. The 1937 El Rancho Hotel, also in Gallup, was built by and for Hollywood. Built by R.E. Griffith, brother of director D.W. Griffith, at a time when many Westerns were being filmed in northwest New Mexico, the hotel's architecture and décor reflects a blend of both the "real" West and a Hollywood creation of the "West." The two-story lobby displays authentic Navajo rugs, oversized rustic wooden furniture, and hundreds of classic black-and-white signed headshots of the famous stars that stayed there. The hotel is owned and operated by the Ortega family, who has

A mural on the side of a restaurant in Holbrook, Arizona, celebrates Route 66.

roots several generations deep in the Gallup region as traders, and is equally popular with locals as it is with travelers. In Holbrook, one easily recognizes the Wigwam Village as a classic example of roadside tourist architecture. Built in 1950, the motel is currently owned and operated by the son and daughter of the original builder, Chester Lewis. Lewis, owner of other Arizona hotels at the time, saw the original Wigwam Village built by Frank Redford in Cave City, Kentucky. Lewis forged an agreement with Redford for the plans and built his Wigwam Village in Holbrook, the sixth out of ten such Villages that would eventually be built throughout the country. Another classic post-war tourist enterprise is the Jack Rabbit Trading Post between Holbrook and Winslow. Its multiple bright yellow billboards featuring a simple black silhouette of a rabbit and the declaration "Here it is!" in red are one of the best examples of the style of roadside tourist advertising of its era. Another classic tourist attraction is the 12-foot jackrabbit statue outside the store that visitors can ride and photograph. Reflecting the "Main Street" side of Route 66 are the early Mormon houses seen in Joseph City. The Hubbell Building in Winslow served locals and tourists alike. The Richardson family, who still operates a store in Gallup, built the post in the late 1800s. From 1924 to 1953, the trading post was managed by Roman Hubbell, son of Juan Lorenzo Hubbell whose original trading post in Ganado, Arizona on the Navajo Nation is now a National Historic Site. The building is currently under renovation to become the city's Welcome Center. The 1926 ATSF train depot in Flagstaff, like La Posada in Winslow, is flanked on the south by the tracks and on the north by Route 66. It continues to serves as a train depot for AmTrak, is the home of Flagstaff's Visitor's Center, is a hub for Open Road Tours (a local shuttle and tour bus company), and is a focal point of the downtown. The El Morro Theater, El Rancho Hotel, Wigwam Village, Hubbell Building, La Posada, and the Flagstaff Visitors' Center are all on the National Register of Historic Places.

Route 66 was decommissioned in sections and stages, beginning in California as early as 1965. The Oklahoma to Arizona/California border section was the last in 1985. Williams, Arizona, just to the west of the Little Colorado watershed, was the last town on the entire route to be bypassed by the new I-40. Route 66, the road designed link rural American towns together and enhance their economies, had done its job. Now that it was no longer, those small businesses and economies began to decline. The concentration of the population into urban centers began in the 1920s and 1930s and has continued ever since. The interstate highway system facilitated this trend by making travel to and through bigger cities easier and faster. At the same time, it reduced the need to have duplicate stores and services in smaller towns. For businesses directly related to road travel—filling stations, hotels, and restaurants—the wise business decision

was obviously to move to the interstate exits and entrances and off of "Main Street." Subsequently, many Route 66 businesses and downtown economies suffered considerably.

Both Arizona and New Mexico have designated Route 66 as a National Scenic Byway, signifying that while the nature and role of the road has changed with the times, its importance to its communities and the state as a whole remains high. Additionally, the National Park Service has a Route 66 Corridor Preservation Program that focuses on local business and tourism development along the entire road, much in the same spirit as the original Route 66 Association.

DISTINCTIVENESS OF THEME

America has always been a country on the move. Before Europeans arrived, Native Americans built extensive trail systems over thousands of miles to fulfill their subsistence and spiritual needs. They traveled far and often and the stories of their journeys are central to their clan and individual identities and to their religious and moral codes to this day. Although entire clans are no longer on the move as in ancient times, the philosophy of running, often on ancient trails or to ancient sites, still persists in Pueblo culture.

Footraces, such as those that take place during the Zuni ceremony of Shalako, are spiritual in nature. One Hopi belief is that running opens pathways for water to flow, an ever-important consideration in the desert. The Hopis have several organized endurance runs, open to Natives and non-Natives alike, that emphasize running for the benefit of both the earth and spirit of the runner as opposed to the desire to win or compete. Hopi Louis Tewanima took the silver for the 10,000 meter race in the 1912 Olympics and Nicholas Quamawahu won the Long Beach-New York Marathon in 1927 and held the lead during the first part of the 1928 Route 66 run.

Later European migration has left comparable impacts on the land, cultural character of the region, and shaped the minds of their descendents. The Mormon population of Arizona and western New Mexico remains high, and Snowflake is home to one of only two temples built in Arizona. Despite a few early explorers and adventurous homesteaders, the introduction the vast majority of Americans from the east got of the Southwest was by way of the Atchison, Topeka & Santa Fe Railroad and, later, Route 66.

ATSF and Fred Harvey Company made the Southwest accessible to those unused to its landforms and climate, yet they also selectively packaged elements of the land and its culture to make it especially attractive. Their stylized advertisements, buildings, and interior train décor, as much as they drew upon the Southwest's authenticity, also created a specialized image of the Southwest in the minds of eastern European-Americans. ATSF also sponsored the trips of many artists such as painter and etcher Thomas Moran who had two of his western landscape paintings hanging in the Capitol for many years. This artwork added to the image easterners developed of the Southwest even for those who could not travel there.

Route 66 was and is the culmination of the most dramatic social and economic events in the 20th century United States: the rise of the automobile, the Dust Bowl and Great Depression, and the post-WWII era of growth. Its roots

draw on equally important events in the 19th century and earlier, and it continues to evolve with the changes being seen in the 21st century. Although completely decommissioned by 1985, the road never lost its importance. The Historic Route 66 Association, the first of its kind, formed just two years later. It is a road with an incredible history itself, but it has also come to symbolize the essence of the mythical "open road" and all the possibilities, dreams, and restlessness Americans attach to that concept. In a sense, it is not just The Mother Road, but Every Road. With a retiring Baby Boomer generation ready to travel, and a growing trend to revitalize local economies and emphasize the local character of communities, Route 66 will continue to play a prominent role in how America defines and envisions itself.

RELATED RESOURCES LIST

- **Amtrak and BNSF, entire east-west length of the watershed:** Amtrak was born when passenger rail service was reorganized in 1971. Amtrak services Flagstaff, Gallup, and Winslow. BNSF resulted from a merger of the ATSF and Burlington Northern railways to become the Burlington, Northern, Santa Fe. It is one of the largest railroads in the country and services freight needs. Both Amtrak and BNSF operate on the tracks initially laid through the joint effort of the Atlantic & Pacific and ATSF.

- **Beale Camel Trail/Beale Wagon Road, entire east-west length of watershed:** A wagon route laid out by Lt. Edward Beale in 1857-58. It became the basic travel corridor for the ATSF, Route 66, and present-day I-40. It is a designated Historic Trail of Arizona.

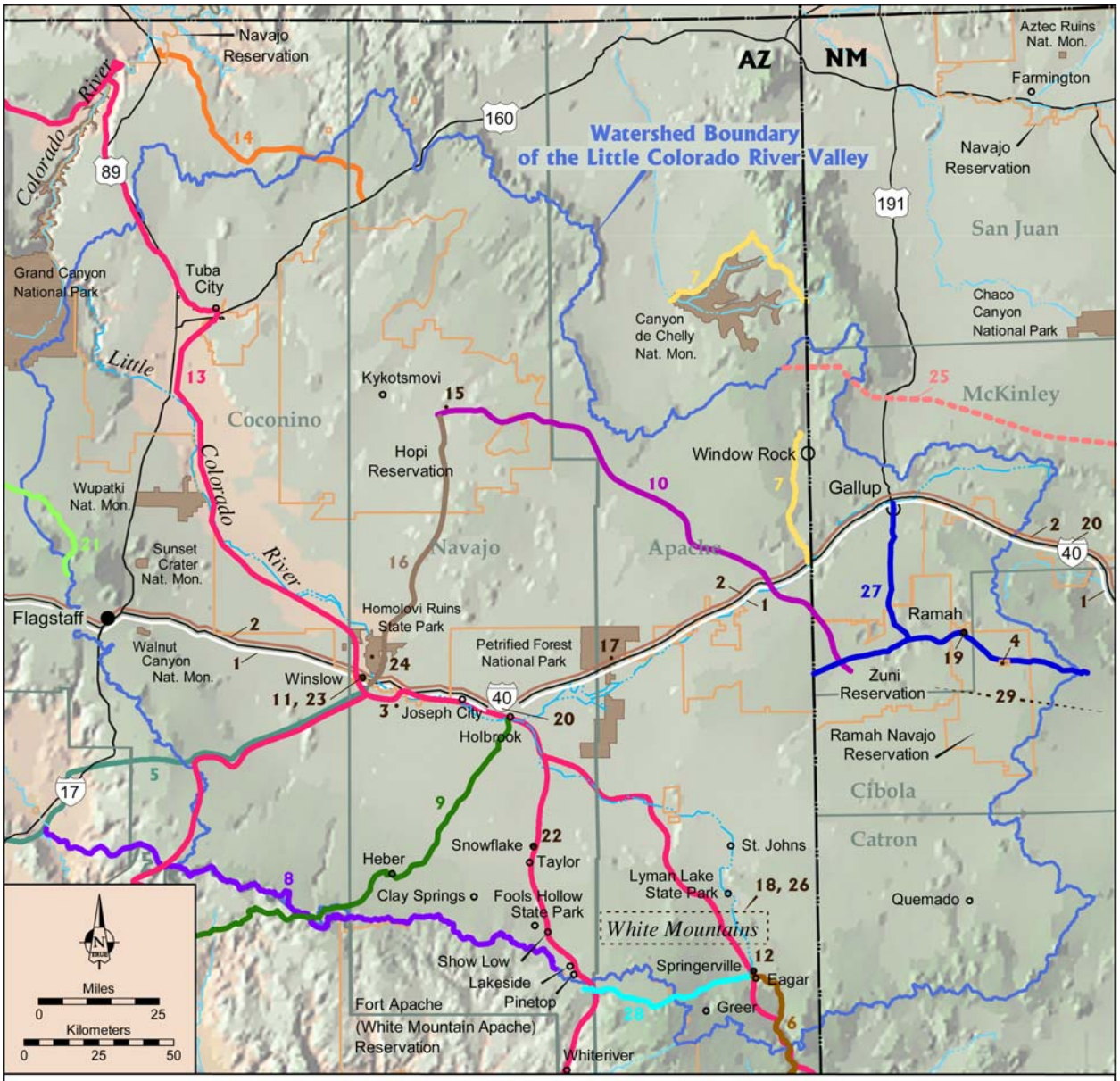
- **Brigham City, Winslow:** The foundations of this Mormon settlement still exist within the city of Winslow. Archaeological studies have been conducted and plans for restoration are currently being developed.

- **El Morro National Monument, New Mexico:** A 200 ft. sandstone bluff that has a reliable waterhole at its base. An ancient pueblo sits atop the bluff, and the site has long been used by travelers as a source of water. More than 2,000 petroglyphs and inscriptions cover the surface of the sandstone, recording the passage of centuries of time and hundreds of people.

- **Chavez Trail, Winslow to Prescott:** A designated Historic Trail of Arizona, the Chavez Trail was developed in the late 19th century over part of the ancient Palatkwapi Trail. The Chavez Trail was an important travel corridor to Prescott, which served as the Territory's capital from 1863-67 and from 1877-1889. It also served as a section of a much longer travel route between Santa Fe and Los Angeles.

- **Coronado Trail Scenic Byway, Clifton to Springerville:** The northern terminus of the Coronadao Trail Scenic Byway is in Springerville, Arizona and it commemorates Coronado's route from present-day Mexico into the present-day American Southwest.

- **Dine'Tah "Among the People" Scenic Road, Lupton to Window Rock:** This road is a window into Navajo culture, taking travelers past canyons and cliffs that define the Navajo landscape, hogans, ancient ruins, petroglyphs, missions, and ending in the modern capital.



Trails, Roads and Rails

1 AmTrack and BNSF
2 Beale Camel Trail/Beale Wagon Road
3 Brigham City
4 El Morro National Monument
5 Chavez Trail
6 Coronado Trail Scenic Road
7 Dine Tah Scenic Route
8 General Crook Road
9 Hashknife Pony Express Ride
10 Hopi-Zuni Trail
11 La Posada Hotel
12 Madonna of the Trail statue
13 Mormon Honeymoon Trail
14 Naat'tsis'aan Scenic Road
15 Paatuwaqatsi Run
16 Palatkwapi Trail
17 Painted Desert Inn
18 Pistols, Plows, and Petticoats
19 Ramah Museum
20 Route 66
21 San Francisco Peaks Scenic Road
22 Snowflake Historic Homes and Snowflake Academy
23 Standin' on a Corner Park and Route 66 Performance Plaza
24 Sunset Cemetery
25 The Long Walk
26 Trail of Many Tracks
27 Trail of the Ancients
28 White Mountain Scenic Road
29 Zuni-Acoma Trail

- **General Crook Road, White Mountains:** A designated Historic Trail of Arizona, it follows the Mogollon Rim connecting Ft. Apache and Prescott, then the Territorial capital.

- **Hashknife Pony Express Ride, Holbrook to Scottsdale:** Celebrating its 50th year in 2008, the Hashknife Pony Express is the oldest officially sanctioned Pony Express in the country. Reviving the spirit of the original Pony Express, riders are sworn in as temporary mail carriers and carry real mail in sacks on horseback as they make their way southwest through the Little Colorado watershed to Scottsdale. Commemorative envelopes to be carried by the Hashknife Pony Express can be purchased year round at locations in and around Holbrook. The ride is held every January.

- **Hopi-Zuni Trail, Hopi to Zuni:** An ancient trail used by Hopis and Zunis to connect their two settlements. This was almost certainly the route taken by the Spanish explorers Tovar and Cárdenas when they were led by Native guides from Zuni towards the Grand Canyon. The Hopi-Zuni Trail is now a designated Historic Trail of Arizona.

- **La Posada Hotel, Winslow:** The railroad resort hotel that architect Mary Colter considered her masterpiece.

- **Madonna of the Trail statue, Springerville:** The daughters of the American Revolution commissioned one statue for each of the 12 states connected by the National Old Trails Road. Each statue is identical, although on two sides of the base are recorded major historical events particular to each statue's location. In Springerville, Arizona, one side notes Coronado's passage and on the other side is a tribute to American pioneer mothers who faced the dangers of a land that was unknown to them. Springerville lies on a rare section of the National Old Trails Road in the Southwest that did not become part of Route 66.

- **Mormon Honeymoon Trail, Lee's Ferry, Arizona to New Mexico and White Mountains:** The route taken by many Mormon families from Utah to northeast Arizona and western New Mexico. A designated Historic Trail of Arizona.

- **Naat'tsis'aan "Navajo Mountain" Scenic Road, Route 98 from Page to Route 160:** The southern portion of this route lies within the Little Colorado River watershed. The route takes travelers through the dramatic landscape of intensely colored sandstone mixed with desert grassland valleys.

- **Paatuwaqatsi Run, Polacca:** Translated from the Hopi, Paatuwaqatsi Run means "Water Is Life Run." Organized in 2003, the event now attracts over 200 participants to run a roughly 30-mile course up and down the Hopi Mesas on trails that are seen traditionally as "veins" of the villages. In the Hopi perspective, using the trails keeps the veins open, the villages alive, and brings rain clouds. The focus of the run is to build community spirit and reinforce cultural values of water and running. The run is open to Hopis and non-Hopis alike.

- **Painted Desert Inn, Petrified Forest National Park:** Mary Colter served as interior decorator for this building now a part of Petrified Forest National Park. Hopi artist Fred Kabotie painted three murals inside featuring different aspect of Hopi life, including their journeys on ancient trails to retrieve salt.

- **Palatkwapi Trail, Walpi to Winslow:** A long, ancient trail used by

ancestors of the Hopi during migrations from the south to the Hopi Mesas. The section between Walpi and Winslow is now a designated Historic Trail of Arizona.

- **Pistols, Plows, and Petticoats, White Mountains:** This self-guided car tour takes visitors to sites in the White Mountains to explore many historic building and locations that shaped the development of the area.

- **Ramah Museum, Ramah:** This museum is located in one of the early houses of the Mormon settlement at Ramah and contains many household artifacts and pictures from that era. It also contains a number of Native American artifacts from the surrounding region.

- **San Francisco Peaks Scenic Road *(Route 180 from MP 224 to 255):*** This route affords travelers spectacular views of the west face of the San Francisco Peaks and surrounding forests.

- **Snowflake Historic Homes and Snowflake Academy, Snowflake:** Snowflake retains many of its Mormon settlers' homes, several of which can be toured. The homes reflect both the rustic log cabins of the earliest families and the multi-story, well-appointed brick houses of later families who were a part of the general prosperity of the community as a whole. The Snowflake Academy was the community's school for decades and the local nonprofit, Snowflake Academy Foundation, is currently in the process of fundraising for restoration of the academy.

- **Standin' on a Corner Park and Route 66 Performance Plaza, Winslow:** Winslow capitalized on its musical fame by installing Standin' on a Corner Park at the intersection of Route 66 and Kinsley Street. The park is crafted after the lyrics of *Take It Easy* by the Eagles which mention Winslow by name. People delight in having their picture taken next to the bronze statue of a guitar player who is standing in front of a mural that depicts various lyrics in the song. Immediately adjacent to the park will be the Route 66 Performance Plaza, currently under construction. It will be an outdoor music venue with distinctly Route 66 décor.

- **Sunset Cemetery, Homol'ovi Ruins State Park:** A cemetery associated with the Mormon pioneer settlement of Sunset Fort built by Lot Smith. The cemetery was used between 1876 and 1884, and the Fort was occupied till about 1888.

- **The Long Walk:** This is a journey Navajos took from their homes to Ft. Sumner in eastern New Mexico in 1864 when they were forced off the land and into the Bosque Redondo reservation by Kit Carson. Many perished during the journey or during the ensuing four years of captivity and the experience is a seminal event in the modern history of the tribe.

- **Trail of the Ancients, Zuni to northwest New Mexico, Utah and Colorado:** A designated Scenic Byway, the trail links many present-day and ancient Native American sites in three states.

- **Trail of Many Tracks, Sanders to Zuni to the White Mountains to Winslow:** A self-guided audio CD tour that leads visitors off the highway and to many of the highlights of the White Mountains and Zuni. Created and narrated by

local residents, it covers Native American culture, European pioneer history, and describes the local geology and other natural attributes of the region.

- **White Mountain Scenic Road, Hon-Dah to Eagar:** The eastern half of this route lies within the Little Colorado River watershed, affording travelers views of and access to the incredible White Mountain range.

- **Zuni-Acoma Trail:** An ancient route that connects Zuni to its next-nearest neighbor to the east, Acoma pueblo. The ancient trail passed El Morro bluff and its perennial pool.

PRIMARY REFERENCES

Arizona Office of Tourism
n.d. Arizona Scenic Roads. <http://www.arizonascenicroads.com/main.aspx>. Accessed 12 February 2008.

Bryant, Keith L.
1984 *History of the Atchison, Topeka, and Santa Fe Railway*. University of Nebraska Press, Lincoln.

Courlander, Harold
2000 (1971) *The Fourth World of the Hopis*. University of New Mexico Press, Albuquerque.

Duff, Andrew I.
2002 *Western Pueblo Identities*. University of Arizona Press, Tucson.

Grattan, Virginia L.
1980 *Mary Colter: Builder upon the Red Earth*. Northland Press, Flagstaff, Arizona.

Krim, Arthur J.
2005 *Route 66: Iconography of the American Highway*. Center for American Places, Santa Fe.

Mose, Jr. Don Jr., and Kathryn E. Smith (editors)
2001 *Navajo Clan Legends*. San Juan School District, Blanding, Utah.

National Park Service
1995 Special Resource Study: Route 66. <http://www.nps.gov/history/rt66/SpecialResourceStudy.pdf>. Accessed 11 February 2008.

Peterson, Charles S.
1973 *Take up Your Mission*. University of Arizona Press, Tucson.

Roberts, Alexa, Richard M. Begay, and Klara B. Kelley
1995 *Bits'íís Ninéézi (The River of Neverending Life): Navajo History and Cultural Resources of the Grand Canyon and the Colorado River*. Navajo Nation Historic Preservation Department, Window Rock, Arizona.

Theme 3
Living from the Land

SUMMARY OF THEME

Oral histories, historic accounts, and archaeobotanical evidence indicate that several cultures have farmed, practiced selective forestry, and mined in the Little Colorado River Valley continuously for at least 4,100 years. The food production begun four millennia ago with annual field crops and turkeys later diversified as perennial crops such as agaves and fruit trees were introduced, and livestock management was undertaken.

Within this watershed, it is still possible to see how Native American cultivators integrated seedstocks, tree plantings and water management practices from Mesoamerica, Spain, North Africa and the Middle East to successfully produce an abundance of foodstuffs on a limited water budget. These adapted seeds, trees and farming practices kept most Hopi, Tewa, Zuni and Navajo communities food self-sufficient even through the 1930s Dust Bowl, when other Western farmers and ranchers went belly-up with the drought. Since then, however, acreages planted to native crops have continued to shrink with out-migration, springwater depletion, and economic change, and the number of native crop varieties still grown by contemporary farmers on reservations is less than half of what it was a century ago. Nevertheless, there are community-based education projects on nearly all the reservations in the watershed that are working to pass traditional agricultural knowledge on to the next generation, as well as effort to restore irrigation systems, orchards, gardens, fields and native crops. Some of these have been paired with cultural and agricultural tourism to provide new income streams for local residents based on the production, marketing and interpretation of place-based heritage foods.

A garden display at the Ramah Farmers' Market making use of products strongly associated with the region.

Both ranching and sheepherding are activities that cross-cut all the cultures of the Southwest. Begun with the introduction of criollo (corriente) cattle and churro sheep in the 1590s, these livestock traditions retain their Spanish, Basque, Moorish, and Arabian roots but have been shaped and transformed by Native Americans and later by Northern European- and Afro-American cowboys. Thus, stockmen traditions provide a basis for exploring both commonality and sharing of traditions but also the influence of differences of lifestyles and beliefs. The Little Colorado contains examples of many combinations of managing cattle, sheep, goats, (and more recently), llamas and alpacas: cultural variety, historical variety, breed variety, variety of size of operation, and variety in innovations of relevance for the future.

Logging and mining also played significant roles in the Little Colorado region. The economic and social impacts of the industries shaped the development of many local communities and were part of a larger era of expansion the nation as a whole experienced in the decades preceding

and succeeding the turn of the last century.

DESCRIPTION OF THEME

Agricultural Antiquity, Continuity and Change

Until the last quarter century, the oldest known agricultural remains in the co-terminous United States were said to be from Bat Cave, near Magdalena, New Mexico, not too far southeast of the proposed Little Colorado River National Heritage Area. However, recent archeobotanical analyses of crop remains found near Zuni, in Canyon de Chelly, and on Black Mesa near the Hopi pueblos now suggest that corn and squash were grown on the Colorado Plateau—and within the Little Colorado River watershed—for upwards of 4,100 years. These radiocarbon dates on crop remains rival those recently reported from the Santa Cruz River Valley in southern Arizona.

Impressively, the Little Colorado River Valley exhibits the continued use of some of the very same field complexes from which these crop remains were presumably derived. Some fields near Zuni, New Mexico and Second Mesa, Arizona are still being cultivated—without any evident depletion of soil fertility nor soil microbial diversity—at sites described by the very first European visitors to these areas. Whereas dry farming and floodwater faming have all but died in other parts of Arizona and the Southwest, they have persisted in the Little Colorado River Valley despite a recent decade of severe drought. This watershed is one of the few watersheds in the American West where farming traditions can be experienced that predate European settlement.

At the same time, Mexican and European crop introductions and diversified water management practices derived from Mesoamerica, Spain, North Africa, and the Middle East offer unprecedented opportunities to interpret both continuity and change in agrarian economies, rather than assuming that they have remained static or rigid. The contrast of fertile floodwater fields and spring-fed gardens or orchards with the surrounding sand plains, redrock canyon walls and barren slickrock have intrigued millions of tourists for well over a century, and now there is renewed capacity and interest among indigenous communities in interpreting as well as safeguarding these agrarian landscapes.

Food and Farming Diversity in Arid Landscapes

Nowhere else in the United States can one see within a few hours drive an equivalent diversity of farming strategies still practiced by Native Americans, Hispanic Americans and Anglo (in particular, Mormon) Americans, nor sample in nearby festivals, farmers markets, and restaurants such a diversity of distinctive traditional foods. One can view sand dunes that have been dry-farmed for centuries along the roadsides leading to Hopi villages, or floodwater-supplemented orchards and cornfields along washes near Zuni and Navajo settlements. Spring-fed terrace gardens have been recently renovated at Bacavi and Wepo by Hopi and Tewa youth, while Navajo-Churro sheep butchering, shearing, wool spinning and weaving are being revived among Navajo and Hispanic settlements. From thin, delicate Hopi piki waferbreads to chunky, smoky Navajo kneal-down breads, a

distinctive set of native food products otherwise unfamiliar to outsiders can be purchased at roadside stands, flea markets, farmers markets and locally-owned restaurants. Many of these prepared foodstuffs are homemade from heirloom grains, vegetables and fruits, or heritage breeds of meats (like Navajo-Churro mutton) now collectively called *place-based heritage foods*. Many of the indigenous and Hispanic communities of the region are now reviving such foods as part of their efforts towards seed sovereignty and food self-sufficiency.

In fact, the Little Colorado River Valley—as part of the Colorado Plateau as a whole—harbors a greater diversity of native and traditional crop varieties

Table 3.1. Folk varieties of Native American crops and livestock, Little Colorado. (The numbers in this table refer to varieties of each species that have been documented to date.)

Scientific Name	Common Name	At Hopi/Tewa	At Navajo-Apache	Zuni and Pueblos
Amaranthus cruentus	Red amaranth	1	-	-
Amaranthus hypochondriacus	Grain amaranth	-	-	1
Capsicum annuum	Chile pepper	2+	2+	2+
Canavalia ensiformis	Jackbean	1	-	-
Cucurbita argyrosperma	Cushaw Squash	1	1	3
Cucurbita maxima	Hubbard squash	2	2	1
Cucurbita moschata	Big cheese pumpkin	1?	-	-
Cucurbita pepo	Acorn squash, etc	5	3	5
Gossypium hirsutum	Cotton	1	-	1
Helianthus annuus	Sunflower	1	1	-
Helianthus tuberosus	Sunchoke	1	-	-
Lagenaria siceraria	Bottlegourd	4	1	2
Monarda menthaefolia	Nanakopsi bushmint	1	-	-
Nicotiana attenuata	Pueblo tobacco	1	1	1
Nicotiana rustica	Turkish Tobacco	1	-	-
Nicotiana tabacum	Common tobacco	1	1	1
Opuntia viridiflora	Cholla cactus	-	-	1
Physalis philadelphica	Husk tomato	-	-	1
Proboscidea parviflora	Devil's claw	2	-	1
Phaseolus acutifolius	Tepary bean	2	1	2
Phaseolus coccineus	Runner bean	2	-	-
Phaseolus lunatus	Lima bean	4	-	-
Phaseolus vulgaris	Common bean	10	6	4
Zea mays	Corn/maize	15	11	5
Meleagris gallopavo	Turkey	1	1	-
TOTAL	128	60	36	32

Table 3.2. Historically introduced seeds and breeds of the Colorado Plateau.

Scientific Name	Common Name	Hispanic/Basque	Anglo/Mormon	Native/ Indigenous
Allium cepa	Onion	X	X	X
Allium sativum	Garlic	X	X	X
Citrullus lanatus	Watermelon	X	X	X
Cucumis melo	Melon	X	X	X
Cydonia oblonga	Quince	X	X	-
Lens culinaris	Lentil	X	X	X
Malus domesica	Apple	X	X	X
Pisum sativum	Pea	X	X	-
Prunus armenica	Apricot	X	X	X
Prunus domestica	Plum	X	X	X
Prunus persica	Peach	X	X	X
Pryrus communis	Pear	X	X	X
Sorgum bicolor	Sorghum	X	X	X
Triticum aestivum	Wheat	X	X	-
Vitis vinifera	Grape	X	X	-
Vicia faba	Fava bean	X	X	-
LIVESTOCK				
Bos bos	Cattle	X	X	X
Equus asnus	Burro	X	X	X
Equus caballus	Horse	X	X	X
Ovis aries	Sheep	x	X	X
Ovis cabra	Goat	X	X	X
Sus scrofa	Pig	X	X	?
POULTRY				
Anas domestica	Duck	X	X	-
Anser anser	Goose	X	X	-
Gallus domesticus	Chicken	X	X	X

than any other equivalent area north of the Tropic of Cancer. It is not merely a region with deep agricultural traditions featuring corn, beans and squash; grain amaranths, sunflowers, tobaccos, gourds, greens, fruits (such as wolfberries) and fibers (such as cotton) have persisted since prehistoric times. In addition, historically introduced crops such as peaches, almonds, pears, plums, apples, apricots, Jerusalem artichokes, chiles, tomatoes, tomatillos, melons, and watermelons still proliferate. The number of distinctive varieties of crops still grown in Native and Hispanic communities of this watershed centuries after their introduction is truly astounding. At the same time, perhaps as much as half of them have been lost since the 1930s, making current efforts for their conservation, interpretation, and revival by local communities critically important. The proposed designation of this heritage area—in a way that validates and supports these agrarian traditions—may help save this imperiled diversity.

Cattle Ranching and Sheepherding

Ranching, though practiced by people of virtually every ethnicity in the Southwest, has its roots with the Spanish and the Moors. Although turkeys were prehistorically herded and used to manage field weeds and pests, the 500 cattle and 5,000 sheep that walked behind Coronado and Esteban el Morro as they entered into the watershed in 1540 were the first domesticated livestock in the Little Colorado region. Coronado was not a rancher, however. He was an explorer and for him the animals were simply a food supply and not the base herd for a future hacienda. Don Juan de Onate, first governor of what is now New Mexico, is credited as the first to bring churro sheep and criollo cattle to the region to establish herds around 1598. The Spanish padres who established missions in indigenous communities all across northern New Spain used livestock raising both to sustain themselves and to establish a different dynamic within the community economy. Where cattle, sheep, or goats were set loose to graze, fields and orchards had to be fenced, and some wild foods formerly harvested by hand were eaten out by livestock. Livestock raising, of course, is practiced by many cultures throughout the world and throughout time, but in the American Southwest it has had, and continues to have, a distinctly Spanish, Moorish and Arabic flavor, rather than a Northern European one. It appears that a disproportionate number of Andalusians—including crypto-Arabs, Moors and Jews—were among those who settled the northern frontier of New Spain in an attempt to escape the Spanish Inquisition, and they brought along Arab- and Moor-influenced terms in Spanish for managing horses, irrigation ditches, crops and livestock. The following list is a sampling of ranch terms that show these close connections (Table 3.3). Traditional cowboy clothing and the leatherwork and metalwork of saddles and tack are also strongly rooted in Spanish custom.

Table 3.3. English ranching terms derived from Spanish (and ultimately Arabic or Moorish*) words.

Spanish	English
Alazán*	Alice-Ann
Albarda*	Albardón
Chaparerras	Chaps
Cincha	Cinch
Corral	Corral
Jaquima*	Hackamore
Lazo	lasso
Mesteno	mustang
Rancho	ranch
Reata	lariat
Rodear	rodeo
Vaquero	buckaroo
Xinete*	jinete

Nevertheless, persistent raids, especially by Apaches and Navajos, kept most non-Natives from establishing permanent settlements in the Little Colorado River Valley and kept what few ranching operations there were from developing on a major scale into the early 1870s. The exception to this situation is Don Manuel Antonio Candelaria who settled with bride and flock of sheep along a creek at a place that would come to be known as the town of Concho, Arizona sometime in the early 1860s (sources differ as to the exact year). As a small boy, Candelaria was taken captive by Apaches and raised by them until his early adulthood. When he returned to his family's town in Cubero, New Mexico, about 60 miles east of the Continental Divide, locals there did not even recognize him. Candelaria, upon his return to the creek and grasslands he

Cattle ranching has a long and multicultural history throughout the watershed.

remembered in Arizona Territory, asked Apache leaders for their permission to let him settle there and it was granted. The raids that plagued other non-Native settlements reportedly never happened in Concho. Later, Candelaria's brothers followed him to Concho, as did other Hispanic individuals, families, and sheep from New Mexico. The descendents of the Candelaria brothers became the most prominent sheep-owning family in the region, at one time having 50,000 head or more.

The total number of sheep raised by the entire Concho community is estimated to have reached a height of 100,000 head in a range that extended north to the present-day Petrified Forest, south to the town of Vernon, Arizona on the edge of the White Mountains, and west to Snowflake. The success of Concho sheepherders led to the town establishing the first bank in Apache County in 1902.

Top: Sheepherding south to lower and warmer elevations for the winter cross State Route 77 just north of Snowflake, Arizona. (Photo by Galen Hicks.) Right: Sheepherders gather for an annual conference and sheep show dedicated to the Navajo-Churro breed.

Following the close of the American Civil War in 1865, the U.S. military was redirected to fighting Native Americans in the West. The military's repeated campaigns against tribes did eventually result in the cessation of raids against homesteads and ranches and the subsequent settling of the region by non-Natives. One of the earliest known non-Native ranchers in the region, aside from the settlers at Concho, was James Stinson, who by 1873 had a respectable cattle ranch at present-day Snowflake. Thirsty sheep and their herders—John Clark, William Ashurst, Thomas McMillon, and the Daggs brothers—began arriving in the area of present-day Flagstaff in 1876 when severe drought hit California. John Wood was cattle ranching in the White Mountains by 1877.

John Young, son of Brigham Young, noticed the good grasslands around present-day Flagstaff while cutting ties for the advancing railroad. He established the Moroni Cattle Company nine miles north of Flagstaff on behalf of the Mormon Church in 1881. Two years later, with the partnership of eastern investors, he reorganized the business into the Arizona Cattle Company. Known as A-1 because of the shape of its brand, the company bought 132,000 acres from the land grant of the Atlantic & Pacific Railroad and filled it with between 14,000 to 16,000 head of cattle.

Two aspects of A-1's development are significant because they reflect common occurrences for developing ranches all across the West. First of all, A&P's holdings were checkerboarded, meaning that when the railroad was given the right to develop through the region, the government divided the land into one-mile by one-mile squares and awarded every other square, or "section," to the railroad. Railroad companies were eager to sell their sections after their routes had been

determined because land sales were one of the ways they financed their typically cash-strapped operations. This is a phenomenon that occurred wherever railroads developed. The purchase of 132,000 acres (or approximately 206 sections) in effect gave A-1 twice that amount of grazing land because the sections were not fenced and, at that time, there was no oversight of the government-owned sections. The second significant detail of A-1's history is that the ranch developed with the help of eastern capital. Many industries and their related towns of the non-Native West—railroads, mining, logging, etc.—developed as a result of east coast financial investment. Wealthy entrepreneurs in cities such as Boston, Philadelphia, New York, and Chicago were willing to risk their money, if not their comfortable lifestyles, and invested in fledgling business start-ups in the West. The ranching industry was no different. With ample land and few other settlers to pose competition, ranching in the early 1880s could turn considerable profits.

The railroad, which was also largely funded by eastern interests, completely connected the Little Colorado region to the east and west coasts in 1883 and, like in every other Western town along any railroad route, changed the entire economy of the region profoundly. The histories of the railroad, mining, logging, and ranching cannot be separated. The coming railroad and the need for ties spurred the logging industry. Once the railroad was built, ties were still needed for the inevitable repairs and improvements, plus lumbermen could now use the railroad to send wood products to markets in far away places. The railroad had a similar effect on mining. Not only did trains consume enormous amounts of coal and require significant amounts of metal for tracks, engines, and cars, but they could transport mining products to factories or population centers that were in need of the product but typically located far away from the mine.

Railroads did not build themselves. Great numbers of men were needed to plan and grade the route, build bridges, and lay track and all of these men needed to eat. Railroad crews consumed large amounts of Arizona and New Mexico beef while working in the area, and, just as with wood and mining products, once the railroad was complete, ranchers could use it to ship live animals or wool from coast to coast. Before the railroad came to the Little Colorado River Valley, wool either had to be sent by oxcart to the nearest railhead in Trinidad, Colorado (a trip of about 500 miles one way) or along the Beale Wagon Road to the Colorado River where it was loaded on boats that would eventually make their way around the tip of South America—the Panama Canal would not be built until 1914—and finally to Boston or other eastern markets.

The effect of more efficient railroad transport was immediate. In 1880, three years before the railroad, the number of sheep raised by non-Natives in northern Arizona was approximately 68,000 head. By 1890, that number increased more than nine-fold to approximately 620,000 head. The effect on cattle ranching was less dramatic, but followed a similar pattern. In 1880, cattle raised in northern Arizona by non-Natives equaled about 78,000 head, but by 1890, that number increased to 121,000 head. In all cases, the railroad facilitated access to markets and a rise in profits for rural industries and rural industries in turn patronized the railroad and added to its financial success as well.

The famous Hashknife ranch, at one time the third largest ranch in North America, followed a similar pattern of development as the A-1 with its use of eastern investors and purchase of railroad lands. Like the A-1, it was known by the shape of its brand, which was shaped like a kitchen tool chuckwagon cooks used to cut hash and vegetables. Unlike the A-1, it could actually make use of the railroad at the start of its operations.

In 1884, Edward Kinsley, a shareholder in the A&P Railroad, persuaded eastern investors to buy one million acres of checkerboarded land at $.50/ acre. Officially titled the Aztec Land and Cattle Company, the company then spent about another $330,000 acquiring 22,000 head of cattle, and with them the rights to the distinctive brand, from the Continental Cattle Company in Texas. Suffering from two years of drought and resulting low prices for poor quality animals, Continental was more than happy to accept the price of $15/head even if it was half of what they got just a few years before. Buying cattle is one thing, moving them to a new ranch is quite another. Ranches in Texas were losing half or more of their cattle to starvation at the time. Those that were not dead yet were severely weakened and well on their way. If the Hashknife tried to drive cattle in such condition on foot from west Texas, across all of New Mexico, to northeast Arizona, most would not survive the trip. Most would survive the trip, however, if they traveled on the new railroad.

In addition to the drought, the grasslands in Texas had been severely overgrazed, producing a dire situation for ranchers. The grasslands of the Hashknife, however, were vast and lush. The ranch was 72 miles east-west by 50 miles north-south. The eastern boundary was about 12 miles east of Snowflake; the southern boundary crossed just north of Show Low. It extended west a few miles past Winslow, and the northern boundary was the railroad itself. The Hashknife bought 1,000,000 acres but effectively got the use of 2,000,000 because of the checkerboarding. The size of its herd, through additional imports and breeding, grew to 60,000 in just a few years and the Hashknife needed more than 2,500 horses and 100 cowboys to take care of it all. The headquarters of the Hashknife were located just south of Joseph City, and the growing railroad town of Holbrook quickly became a major livestock shipping and distribution center with extensive stockyards, scales, and loading chutes.

People, including other ranchers, were already living in Hashknife ranch territory by the mid-1880s. The Mormon settlements had much smaller numbers of livestock as compared to the Hashknife, but the livestock still needed to eat and drink. The sheepherders of Concho and Flagstaff also made use of a wide territory to find suitable summer and winter ranges. Hashknife cattle added grazing pressure to the grassland resource itself and increased tensions between sheepherders and cattlemen, even those not with the Hashknife outfit.

Periodic droughts in other places prompted additional moves of cattle (not just the Hashknife's) and sheep to the Little Colorado region and soon it was becoming as overstocked as the places from which the animals were coming. Devastation from drought and overgrazing was just a matter of time for the Little Colorado. For the most part, non-Natives were ranching with a market in mind and usually that was a market far removed from the ecological and climatic realities of the Southwest.

If east or west coast markets paid high prices for beef and wool, Little Colorado ranches, especially those backed by eastern investors like the Hashknife, tried to fill the demand.

The climate of the Southwest, the new settlers were learning, is highly unpredictable and irregular. To confront the uncertainty of rain and available grass, ranches tried to secure their livelihood in a variety of ways. The A-1 began developing dams, tanks, and pipelines to springs. The drought of 1892 prompted many cattle ranchers to begin planting alfalfa for a more steady supply of feed, to begin selling animals at one year of age when previously they had been kept for two years or more, and to improve their stock through breeding. It took virtually the same amount of feed and water to support an animal of inferior breeding as it did one of superior breeding, yet the animal of superior breeding would bring a higher price due to its higher quality. Grazing pressure and competition also started the practice in the 1880s for sheepherders to take their flocks over the Mogollon Rim to winter along the Salt and Gila Rivers outside of Phoenix. The annual spring and fall movements of the sheep became hallmarks of the industry and communities along the route. As one historian wrote, "the harbinger of spring in Flagstaff was not a robin's chirp, but the bleat of a Merino" (Mangum 2002b:68). The seasonal migration continues to this day, albeit on a much smaller scale. Still, twice each year, State Highway 77 just north of Snowflake is closed to traffic for a short time to allow the sheep to cross on their way south for the winter or north for the summer.

Improved irrigation, breeding, and alfalfa fields, however, proved no match for repeated drought, overgrazed and overstocked ranges, and inconsistent beef markets. While smaller operations faced these same challenges, they had at least one advantage over the larger operations—smaller overhead costs. The A-1 Ranch folded in 1899. Much of its acreage was bought by the Babbitt brothers of Flagstaff who had begun their own ranch with a mere 160 acres just north of Flagstaff in 1886. The Hashknife Ranch went out of business two years later, and again, most of the land and the famous brand were bought by the Babbitts. Babbitt Ranches is still a fully operating cattle ranch today and the hashknife brand is currently used on their award-winning quarter horses which are offered for public sale every July. Babbitt Ranches' enduring success was due to several reasons. First, although they grew quite large, they started small and built slowly over time. They also diversified their income by operating a mercantile, lumberyard, and slaughterhouse in town, and even by raising sheep. The Babbitts' tactic of acquiring property slowly over time was not unique to their operation. It was a method many smaller homesteads throughout the watershed employed to build their ranches and income to a reliable level.

Cattle, and especially sheep, ranching were major industries throughout the watershed. Sheep ranching for many years was northern Arizona's largest industry, involving hundreds of families, and it also played a larger role in northwest New Mexico than did cattle. The creation of the Forest Reserves in the late 1890s, which became known as National Forests with the creation of the Forest Service in 1905, struck considerable fear and outright anger into the hearts of ranchers. For a time, a ban of all grazing on public land was considered. Then the ban was considered only for

sheep. Sheep had long been looked upon as more damaging to vegetation and land than cattle, although in actuality they can be managed to avoid harmful effects and can even produce beneficial effects such as embedding seeds into the ground that would otherwise be blown away by the wind. Some ranchers, such as the Babbitts, saw the new management rules as an opportunity to further develop the quality and integrity of the ranching industry and a safeguard against overgrazing. Grazing on public lands—and virtually all grazing in the West is done in part on public lands—has come with a set of regulations ever since.

Periodic market rises and declines affected both the cattle and sheep industries, but both remained basically strong into the first half of the 20th century. The development of synthetic fabrics after WWII, however, took a huge toll on the sheep industry over the succeeding decades. A disappearing market, coupled with the Southwest's rapid urban growth and corresponding decrease in grazing land, forced most sheepherders out of business or into retirement by the 1970s. The cattle industry fared slightly better, although any rancher today will speak of the great effort involved in just breaking even. A common joke about cattle ranching states that the key to a successful ranch is a wife who works in town.

Modern-day agriculture in the Little Colorado has taken an interesting new turn in recent years. In addition to the historic industries of cattle and sheep ranching and Native crops and gardens, a number of people have started new farms with an innovative focus. Organic, local, and naturally-produced foods and plants are gaining popularity with farmers and consumers alike. From goat cheese to lavender to beef, the Little Colorado's agricultural offerings are many and varied. A few traditional cattle operations are now looking to wind power and other business enterprises compatible with ranching in order to diversify their source of income while enabling them to continue the ranching lifestyle they enjoy.

Lumber

Although not as widespread across the watershed as ranching, lumber did play a major role in the economies and lifestyle of communities in forested places. The western and southern border of the watershed is home to part of the largest continuous Ponderosa Pine forest on the continent. This forest literally built other major industries: it provided ties for the railroad, fruit and vegetable crates for agriculture, and shafts for mining. It employed up to 1,000 people during the early 1900s, placing it as the 3rd largest industry in the state of Arizona, and more than 90% of the industry was concentrated in the northern part of the state. In specific communities, lumber was the number one industry.

The first major call for lumber came with the advancing railroads. Lumber from the Zuni Mountains built the track as it passed through Gallup. Railroad orders were responsible for the development of lumber companies in the White Mountains and around Flagstaff as well. One of Flagstaff's most influential early families was the Riordans. They made their living with timber, surviving the intense boom and bust cycle of the industry, and made many lasting contributions to the developing town.

Denis Matthew Riordan came to Flagstaff as a general manager of the

Ayer Lumber Company, a Chicago-backed firm, in 1884 and his brothers Timothy Allen and Michael James joined him within two years. In 1887, Denis Matthew bought Ayer and renamed it the Arizona Lumber Company. In 1893, his brothers purchased his interests and changed the name a final time to the Arizona Lumber and Timber Company. Denis Matthew eventually moved from Arizona, but not before he succeeded in separating Coconino County from Yavapai County in 1891 and establishing Flagstaff as the county seat. Timothy and Michael stayed for the remained of their lives and married sisters, who happened to be first cousins to the Babbitt brothers. The Riordan brothers built a distinctive double mansion—one wing for each brother adjoined in the center by a billiard room—with architect Charles Whittlesey who, one year later, would build El Tovar lodge in Grand Canyon for the ATSF railroad. The mansion is now a State Park. The Riordans engaged in many projects outside the immediate purview of the lumber industry that shaped the town considerably during its early years. Together with the Babbitts and another businessman, they established the first electric company in Flagstaff. Partnering with ATSF, the Riordans developed a pipeline for water from the inner basin of the San Francisco Peaks. This is still a source of water for Flagstaff to this day. Another water project, the damming of Clark Valley, resulted in Lake Mary, the reservoir named for Timothy's eldest daughter that is a popular fishing and boating lake today and still used as a reservoir for the city.

Aside from these development projects, the lumber industry itself shaped the forested communities of the Little Colorado. The logging industry attracted men from all ethnic backgrounds, although the most numerous were Mexicans or those of Spanish or Mexican descent. With the United States' entry into WWI, many American men went to fight and their places in the forest were filled largely with new Mexican migrants. Department of Labor statistics show that more than 1,100 workers from Mexico came to northern Arizona between June of 1917 and January 1919. In 1924, the Cady Lumber Company of Louisiana, quickly running out of timber in its home state, bought the Apache Lumber Company in the White Mountains and the Flagstaff Lumber Company in Flagstaff and moved a total of 800 people—mostly black workers and their families—to Flagstaff and to McNary, Arizona, located just south of the watershed on the White Mountain Apache Reservation. Within six years, most of the McNary workers, unhappy with the isolation of the community or the drastic climatic change from southern Louisiana, moved. Some returned to the South, others went to nearby communities in the White Mountains, but many went to Flagstaff to work in the lumber mills there. The lumber industry did not bring Hispanics or blacks to the Little Colorado region for the first time, but it did significantly increase their numbers. The South Beaver School in Flagstaff, a National Register property that still serves as an elementary school, was built by Works Project Administration (WPA) employees to serve students of Spanish-speaking parents.

The Great Depression hit all industries more or less equally hard, but lumber had already suffered a decade of changing markets and prices during the 1920s. 1931 production levels were half of what they were in 1920 and many lumber companies simply closed. Some

went through several cycles of closing and reopening, some were bought by other companies and changed names. Preparations for WWII, such as the construction of army barracks and depots and crates for shipping supplies, once again increased demand and the post-war housing boom set a new record for pine products in 1947. By this time, though, the days of the family owned, local lumber mill were gone. The industry had consolidated during the 1930s and early 1940s and individual mills were run by large companies with operations all across the West.

Mining

Although mining for turquoise, hematite, obsidian and precious minerals has occurred in the region since prehistoric eras, both Hispanic and Anglo settlers increased the intensity and range of mining activities in the Little Colorado River watershed. Gallup is a city made as much by mining as by the railroad. Officially named for a railroad paymaster and auditor David L. Gallup, the city was also known for as time as "Carbon City" due to the numerous coal mines that surrounded it. No less than six towns, all within a few miles' radius of Gallup, were active mining communities in the early 1900s. The towns—Heaton, Mentmore, Navajo, Gamerco, Allison, and Clarkville—all share the same basic history and sequence of events, only the specific years and names of the players differ. All of the towns were company towns. The mining company provided simple, frame houses for its employees and usually a company store. There was often a post office and a saloon, and sometimes a school, clinic, or sports facilities. The town was founded when the coal was found, and when the coal ran out residents usually moved out shortly thereafter. Gamerco and Allison both still have a few residents, but Heaton, Mentmore, Navajo, and Clarkville are ghost towns. If the mining towns themselves were not lasting, the impact of the coal industry was. Mines attracted workers of all backgrounds, as did the railroad. Gallup has a long history of a diverse population including European, Asian, Hispanic, and Native residents whose families were first attracted by its early industries. Mining and the railroad each helped the other industry develop and, in turn, provided much prosperity to a young and growing Gallup.

Both the Navajo and Hopi Reservations have a long history with coal mining as well. The coal mined today is not used for trains but for producing electricity in power plants that surround the reservations. Coal provides a substantial portion of revenue for the tribes and many jobs, but, like in most places, is also fraught with controversy. The Navajo Reservation also has a history of uranium mining and uranium is also found in other parts of the Little Colorado River Valley and in areas immediately surrounding it. Uranium became an important resource during WWII for the development of the atomic bomb and in the decades following for the development of nuclear weapons and nuclear power.

DISTINCTIVENESS OF THEME

The variable, and not always favorable, climate and soil conditions led to the development of highly specialized crop types and farming methods in the Little Colorado River watershed. The diversity of crops and livestock breeds that farmers and ranchers introduced and adapted as much as 4,100 years

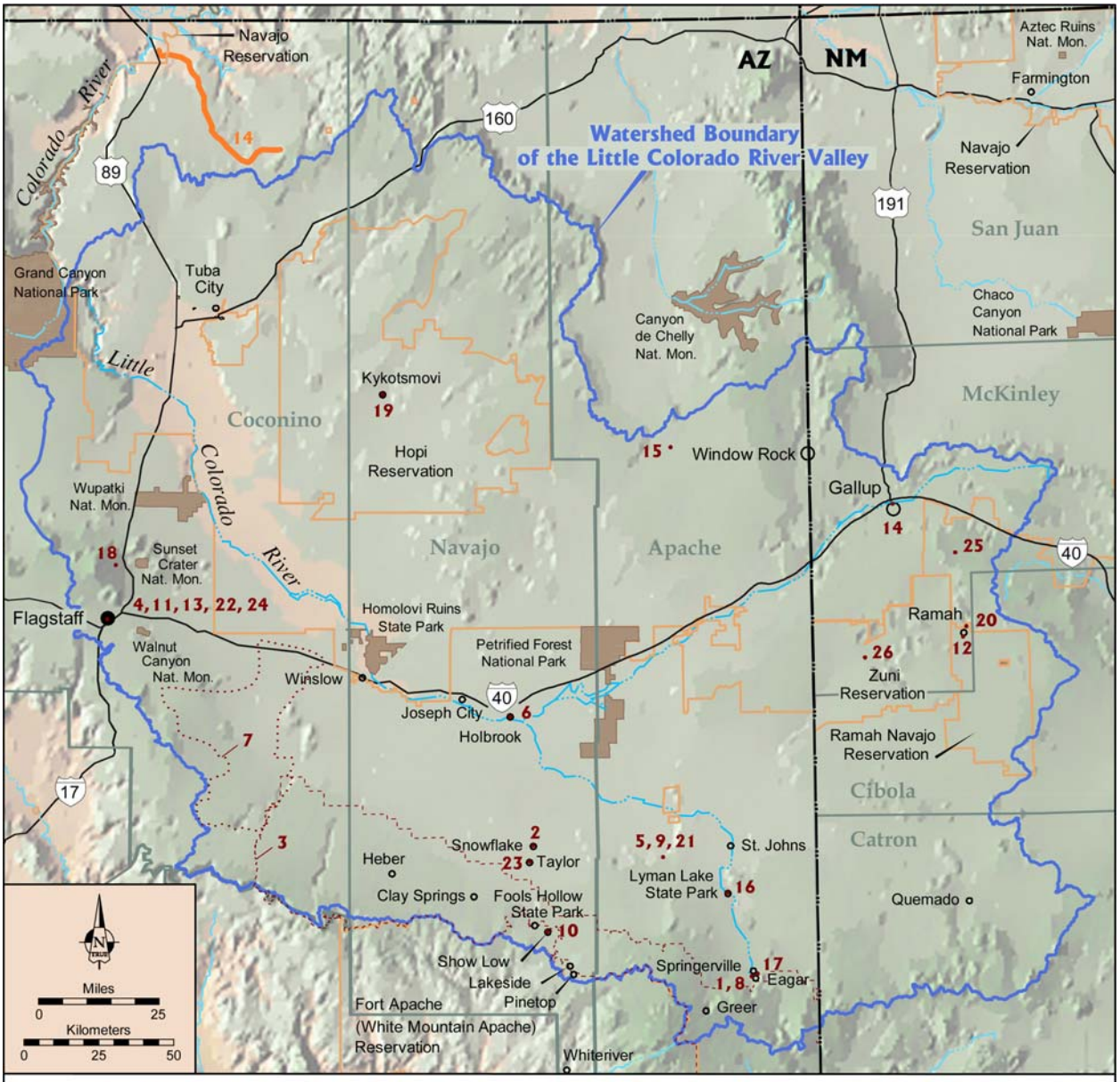
ago largely survives today, forming the richest set of traditional food biodiversity extant in the Americas north of the Tropic of Cancer. This ancient and diverse agricultural record suggests that the Little Colorado River Valley is not only one of the oldest continuously cultivated areas in North America, but the one with the greatest continuity of diverse dry land farms, spring-fed gardens, and irrigated orchards persisting to the present time.

Spanish-flavored ranching and sheep herding traditions are synonymous with the American Southwest. The American cowboy has been both a national icon and international hero for well over a century, and integrates Spanish, Anglo, Arabian, African, and Native American traditions. His historic persona, based somewhat in reality but also polished with myth, captures everything Americans think good about themselves and their country: he is free, he is independent, he is simple yet wise from experience, he is hard working, he is both tough when he needs to be and a gentleman when he needs to be, he is a straight-talker, and he lives by a code of honor. Foreign visitors flock by the hundreds of thousands to the Colorado Plateau each year, merely to catch a glimpse of the true West and its "riders of the purple sage."

The Little Colorado also has a significant logging and mining history. The four land-based industries of farming, ranching, logging, and mining, combined with the railroad, was the recipe that fueled the development of most of the nation from the mid-1800s to the early 1900s. The East looked to the West for continued economic expansion and supply of resources, while the West looked to the east for markets for its products. The two regions left their indelible marks on each other. Most modern-day communities of the Little Colorado are enduring legacies of the dynamic social and economic forces that drove the expanding nation during this period.

RELATED RESOURCES LIST

- **26 Bar Ranch, Eagar:** A working cattle ranch, formerly owned by John Wayne, that now belongs to the Hopi Tribe. Operates as a bed and breakfast and participates in Valle Redondo Days celebration.
- **Amelia's Garden, Snowflake:** A restaurant and market that features organic and locally-grown foods.
- **Babbitt Ranches, Flagstaff:** Babbitt Ranches, first established in 1886, continues to operate on land surrounding the San Francisco Peaks and near the Grand Canyon and the family continues to operate a retail shop (a modern incarnation of their original mercantile) in their historic structure in downtown Flagstaff. In addition to cattle, the Ranches are known for breeding award-winning American Quarter Horses, which are offered at a public auction on the ranch every July. Babbitt Ranches has put large tracts of land into permanent conservation and continues to seek ways to improve the ecological health of their rangelands to improve both the quality of their cattle and habitat for wildlife.
- **Bed and breakfasts, Eastern Agency of the Navajo Nation:** A number of families will host overnight guests in traditional hogans. Guests can experience a small part of Navajo culture, including sheepherding and traditional meals.



From the Land

1 26 Bar Ranch
2 Amelia's Garden
3 Apache-Sitgreaves National Forest
4 Babbitt Ranches
5 Black Mesa Ranch
6 Blevins House
7 Diablo Trust
8 Eagar Daze
9 Farmers' Markets
10 Farmers' Markets
11 Farmers' Markets
12 Farmers' Markets
13 Flagstaff Youth Gardens
14 Gallup Public Library fine art collection
15 Hubbel Trading Post National Historic Site
16 Lyman Lake State Park
17 Magdalena Cattle Trail
18 Mountain Meadow Permaculture Farm
19 Natwani Coalition
20 Ramah Lake
21 Red Rock Ranch & Farms
22 Riordan Mansion State Historic Park
23 Sweet Corn Festival
24 Trappings of the American West
25 Z Lazy B Guest Ranch
26 Zuni Youth Agriculture Program

- **Black Mesa Ranch, Concho:** A goat farm where cheese is made fresh on the premises. Also offers cheesemaking workshops and conducts open houses during the summer.

- **Blevins House, Holbrook:** Still standing on Joy Nevin Blvd., the Blevins house was the site of a famous 1887 shootout that was a result, in part, of the notorious disputes and tensions between cattlemen and sheepherders. Although some cattlemen and sheepherders cooperated, and some individuals raised both animals either concurrently or during different years of their careers, the Pleasant Valley Wars of central Arizona are among the most famous examples of when the two did not get along. Sherriff Commodore Perry Owens served a warrant for the arrest of Andy Blevins (a.k.a Andy Cooper) at the house. Andy had just arrived in town after being involved in shooting incidents in the Pleasant Valley Wars to the south. When Andy, who already had a reputation for murder and cattle rustling, tried to evade his arrest, the Sherriff, in an open and undefended position, shot him in the abdomen. This drew shots from three other men in the house, two of whom Sherriff Owens shot and killed and one of whom he wounded to the point of permanent disability.

- **Diablo Trust, eastern Coconino County:** This organization is a partnership between two family-owned ranches in Coconino County. They engage a diverse group of scientists, local government officials, the non-agricultural public, federal agencies, artists, and others to both educate people about the ranching lifestyle and its realities and to seek input and support for continued range improvements that serve both cattle and wildlife.

- **Eagar Daze, Eagar:** Eagar Daze, held annually in August since 1985, focuses on the logging history of Eagar and the White Mountains and features timber-related sporting events and competitions in addition to music, games, and a community barbeque. It is one of the few remaining logging events in the Southwest.

- **Farmers' Markets, Concho, Show Low, Flagstaff, and Ramah:** Farmers' markets in these northern Arizona communities provide an opportunity for consumers to purchase direct from local and regional growers and for growers to more directly learn and respond to their consumers' preferences. The town of Ramah and the Ramah Farmers' Market were specifically mentioned in a recent edition of a Frommer's Travel Guide.

- **Flagstaff Youth Gardens, Flagstaf:–** A program for high school students that teaches a mix of traditional and modern organic farming methods with healthy doses of science, Native culture, community building, work skill development, and fun.

- **Hubbell Trading Post National Historic Site, Ganado Chapter:** John Lorenzo Hubbell began trading at this site in 1878. He and his descendents operated the post until it was sold to the National Park Service in 1967. Navajos would bring in their wool and other goods in trade for basic manufactured items. Ongoing efforts are restoring an adjacent wash and reintroducing livestock and garden crops that were present during the time of J. L. Hubbell.

- **Lyman Lake State Park:** Mormons built the earthen dam that made the lake to support their farming settlements. For thousands of years before that, Native settlements flourished and farmed along the river's edge.

- **Magdalena Cattle Trail, Springerville, Arizona to Magdalena, New Mexico:** The trail, also known as the Magdalena Livestock Driveway, is thought to be the last regularly-used cattle trail in the United States. Local ranchers used the route to drive livestock to Magdalena, which was once one of the largest shipping centers west of Chicago.

- **Mountain Meadow Permaculture Farm, Flagstaff:** A family owned and operated permaculture farm that produces a variety of agricultural products, gives tours, and hosts workshops for those interested in sustainable permaculture design and practices.

- **Native Movement, Flagstaff:** Based in Flagstaff, this organization works extensively on the Hopi and Navajo reservations as well. Current projects include school and youth gardens and alternative building workshops. Native Movement's alternative buildings make use of the natural environment to achieve heating and cooling efficiency and are designed to catch and make the most efficient use of rainwater on the property.

- **Native Seeds/SEARCH, Tucson:** An organization that maintains a seed bank for crops and wild plants traditionally used as food, fiber, or dyes in the American Southwest, including the Little Colorado River Valley. Also has a retail store to sell products made from traditional plant varieties.

- **Natwani Coalition *(Natwani Tu'sawyaqam)*, Kykotsmovi:** An affiliation of organizations and institutions dedicated to preserving and restoring the local food system on Hopi.

- **Ramah Lake, Ramah:** Built in the 1890s by Mormon pioneers, the dam failed twice during the lake's early history. The community of Ramah, and the lake, continued to survive and today the lake is a popular fishing spot.

- **Red Rock Ranch & Farms, Concho:** This 130-acre farm is one of the largest lavender growing operations in the Western Hemisphere and the second-highest (in terms of altitude) commercial lavender operation in the world. The farm has more than 45,000 plants in the ground representing twelve varieties and more than 10,000 additional plants in the greenhouse. Plants are harvested by hand each year. Their products can be found in several local stores and the farm hosts several public tours each summer.

- **Riordan Mansion State Park:** The double, jointed home of Timothy and Michael Riordan and their respective families, the mansion is a testament to the importance and impact of Flagstaff's logging history. The mansion also hosts monthly presentations covering a wide variety of topics related to Arizona's history.

- **Rodeos:** Rodeos, the classic event showcasing cowboy skills, take place in numerous Little Colorado cities, towns, and in many chapters of the Navajo Nation. Some of the larger rodeos include the Snowflake Rodeo, Taylor Rodeo, Pine Country Pro Rodeo, Wrangler Jr. High Rodeo, Wild Thing Championship Bull Riding, and the Navajo Nation Fair Rodeo.

- **Sweet Corn Festival, Taylor:** A fall festival that celebrates sweet corn and also hosts the Arizona State Barbeque Championship.

- **Trappings of the American West, Flagstaff:** This annual exhibit, hosted at the Museum of Northern Arizona, features original artwork related to ranching and the West. Special programming, such as cowboy poetry sessions, also accompanies the show.
- **Z Lazy B Guest Ranch, McGaffey:** A guest ranch on land that the grandparents of the current owner settled at the turn of the 20th century.
- **Zuni Youth Agriculture Program, Zuni**

PRIMARY REFERENCES

Abruzzi, William S.
???? The Social and Ecological Consequences of Early Cattle Ranching in the Little Colorado River Basin. *Human Ecology* 23:75-98.

DeGlane, E.M.
1981 *Concho The Enchanted Pearl*. Quality Printing Co., Kanab, Utah.

Friederici, Peter and Rose Houk, editors.
2004 *A New Plateau: Sustaining the Lands and People of Canyon Country*. Renewing the Countryside Press, Minneapolis, with the Center for Sustainable Environments of Northern Arizona University and the Museum of Northern Arizona, Flagstaff.

Haskett, Bert
1936 History of the Sheep Industry in Arizona. *Arizona Historical Review* VII(3):3-50.

Hughes, Stella
1985 (1984) *Hashknife Cowboy: Recollections of Mach Hughes*. University of Arizona Press, Tucson.

Legends of America
2008 Legends of New Mexico: McKinley County Ghost Towns. <http://www.legendsofamerica.com/HC-McKinleyCounty.html>. Accessed 23 February 2008.

Mangum, Richard K.
2002a Days Past: Sheep, Part One. *Mountain Living Magazine* February:76.

2002b Days Past: Sheep, Part Two. *Mountain Living Magazine* March:68.

2002a Days Past: Sheep, Part Three. *Mountain Living Magazine* April:68.

2002a Days Past: Sheep, Part Four. *Mountain Living Magazine* May:68.

2002a Days Past: Sheep, Part Five. *Mountain Living Magazine* June:68.

Morris, Michele
1993 *The Cowboy Life: A Saddlebag Guide for Dudes, Tenderfeet, and Cowpunchers Everywhere*. Simon & Schuster, New York.

Nabhan, Gary Paul
2008 *Heritage Farming in the U.S. Southwest*. Western Parks Association, Tucson.

Nabhan, Gary Paul (editor)
2001 *Safeguarding the Uniqueness of the Colorado Plateau*. Center for Sustainable Environments of Northern Arizona University, with Grand Canyon Wildlands Council and Terralingua, Flagstaff.

Nabhan, Gary Paul, and Patty West
2005 *Linking Arizona's Sense of Place to a Sense of Taste*. Northern Arizona University, Flagstaff.

O'Neal, Bill
1989 *Cattlemen vs. Sheepherders*. Eakin Press, Austin.

Schlegel, Paul
1992 A History of the Cattle Industry in Northern Arizona, 1863-1912. Unpublished Master's thesis, Department of History, Northern Arizona University, Flagstaff.

Smead, Robert N.
2004 *VocabularioVaquero/Cowboy Talk*. University of Oklahoma Press, Norman.

Vance, Robert
1992 Lumber and Sawmill Workers in the Flagstaff Timber Industry: 1917-1947 Migration , Adaptation, and Organization. Unpublished Master's thesis, Department of History, Northern Arizona University, Flagstaff.

Theme 4
Native Nations

SUMMARY OF THEME

From the oldest petroglyphs and ruins to present-day arts and crafts production, the Native American influence on the Little Colorado area landscape and the landscape's influence on Native culture cannot be overstated. Today, fully one-half of the proposed Little Colorado River Valley National Heritage Area is comprised of American Indian Reservation lands. The entire valley has been occupied by Native Americans for at least 10,000 years (see "Archaeology" theme), and thus there is a long and varied history of migration and settlement by numerous cultural groups in different places and times. Today the valley is home to two Pueblo tribes, the Hopi and the Zuni, and their entire reservations are contained within the watershed.

The valley also contains the southern portion of the United States' largest Indian Reservation, the Navajo Nation. The White Mountain Apache Reservation borders the National Heritage Area boundary to the south, and this group's cultural influence, both prehistoric and modern-day, can be felt throughout the White Mountains. While Native Americans differ from community to community and from individual to individual in their blend of traditional and modern lifestyles, the family ties and cultural histories of these four groups provide strong connections to the Little Colorado River Valley. Their traditions and those of other Southwestern cultures are celebrated in the areas many museums, cultural parks, public events, and other institutions. Of greater significance, these traditions are integrated into the daily lives of these Native Nations.

DESCRIPTION OF THEME

Reliable, accurate, and in-depth cultural information about most Southwestern tribes is difficult for non-tribal members to ascertain. Although the Hopi, Zuni, Navajo, and Apache have been studied by numerous non-Native anthropologists and other Westerners for more than a century, the information gathered and resulting publications of most of these outsiders is generally regarded by tribal members as incomplete or inaccurate to varying degrees. Throughout history, anthropologists conducted themsevles with varying degrees of sensitivity and scruples, thus often adding to the legacy of Western extraction of Native cultural information and actual material objects for purposes that mostly benefited Western researchers or institutions and gave little in return to Native communities. This too, affected the quality and integry of their writings.

Furthermore, no Hopi or Zuni or Navajo or Apache person knows the complete history or all of the cultural rituals associated with their own tribe. This is because knowledge is passed in a highly structured manner according to one's individual clan or according to one's membership in other tribal societies such as a kiva group, curing or medicine society, or priesthood. The knowledge individuals receive as a result of clan or other memberships is intentionally kept secret, even from

other members of the tribe who maintain different memberships. It is believed that the knowledge should only be known by people who have been taught it through rituals or been properly initiated into the special society. Although not public knowledge, this knowledge is the basis of the past and continuing cultural practices and beliefs of all four tribes. A most basic and generalized account of some cultural components for each tribe is included in this chapter, along with historical information regarding the tribes' development after Spanish contact. The reader should know, however, that it is impossible to give in a report of this sort a full review, even a generalized one, of an entire culture's many interrelated practices and beliefs that developed over the past several thousand years. Far greater depth of meaning and connection between beliefs and the activities of daily life are realized by tribal members in their own realm of experience and knowledge.

Hopi

The present-day Hopi reservation includes Antelope, First, Second, and Third Mesas in northeast Arizona. Several Hopi villages were founded here as early as the A.D. 1300s, attesting to the historical depth of ancestral Hopi groups in the Little Colorado area. In fact, the Hopi village of Oraibi is one of the oldest continuously occupied settlements north of Mexico. The Hopi have strong connections to a much larger area of Arizona and New Mexico than their present-day reservation. This larger area was the place of the most frequent and recent clan migrations before the clas coalesced on the Mesas. The term Hopi often is translated as "good" or "peaceful," but more properly means "one who follows the right path." The Hopi language is of the Uto-Aztecan family. Hopi population at the time of Spanish contact is estimated at about 2,800. After dropping to around 2,000 in 1907, the Hopi now number about 7,500.

The Hopi tribe is comprised of many clans. Hopi believe they are now living in the Fourth World. People left the three previous worlds in time because the corrupt ways of the vast majority of the people made life unbearable for those who still tried to follow the right path. People emerged into this world through an opening in the earth. This opening is at a place called *Sipapu,* which is an actual land formation at the confluence of the Little and main Colorado Rivers. The concept of emerging from the earth is extremely important in terms of the general Hopi worldview. The idea of "Mother Earth" takes on a deeper layer of meaning as the idea of emerging from the middle of the earth onto its surface is easily comparable to the birth of a baby from its mother's womb into the rest of the world. Both Hopi and Zuni mothers traditionally went into a secluded, shaded room for 20 days upon the birth of their babies. The darkened room symbolized the darker underworlds and was thought to protect the mother and newborn from the hazards of everyday life. The baby "emerged" from this room on the 21st day to great ceremony. Upon death, Hopi believe they will return as rain clouds that will continue to enable the growth of life, including humans, on earth.

After emergence, a mocking bird had the people select an ear of corn that would determine their way of life. He explained that selecting the yellow ear would bring a short life, but one full of enjoyment and prosperity. Choosing the blue ear would mean a life of work and hardship, but the life would be

long. Speckled corn, white corn, and red corn all had different implications. The Navajos, Sioux, Comanches, and Utes picked their ears even before he finished the explanations. The people who were to become Hopis were left with the blue corn, and thus the prospect of a hard life. The next day they began their migrations. (For more information on the migrations, which lasted for thousands of years, see the "Trails, Roads, and Rails of the West" theme previously in this chapter.) During the migrations they formed into distinct clans, but did not consider themselves to be true Hopis until they reached the Mesas. The Mesas were the home of the God *Masawu,* but he said the arriving clans could live there if they followed a right way of life. The Bear Clan arrived first and settled the town of Shungopavi near a spring on Second Mesa. (The current community of Shungopavi, on top of the mesa, was established after the Pueblo Revolt of 1680.) The Bear Clan are the traditional leaders and required that each succeeding clan contribute a particular talent or ceremony that would support the life of all of the people. In this way, the different clans came to preside over different ceremonies that control different aspect of daily life, such as planting or bringing the rains, and each clan was an important part of the integrated whole of the society.

The escape from the corruption of the previous three worlds was not total, however, and over time things got out of balance again. The Hopis invited the kachina spirits to come live with them to help restore order. One kachina arrived to assess the situation, and then returned to bring the other kachinas. The kachina agreed to the people's request for their aid, but required that people dedicate half the year to ceremonies for the kachinas. The people agreed and condensed their already full calendar of clan and society-related ceremonies to accommodate the kachinas. Every year, kachinas leave their home in the San Francisco Peaks about the time of *Soyalangw* (winter solstice) and return to the Mesas to live among the people and to listen to their prayers, especially prayers for rain. This begins the half-year cycle of kachina ceremonies. One of the most well-known of the ceremonies is *Powamuya,* or the so-called "Bean Dance." In preparation, girls apply a fresh coat of mudwash kiva walls and paint pictures of clouds and lightning on the ceilings. Bean and corn sprouts are then started inside the kivas and taken out during the ceremony. *Powamuya* is a time for personal and community cleansing in preparation for the upcoming growing season. The kachina cycle ends when the kachinas depart once again for their home in the mountains, about the time of *Nimàntikive* (summer solstice). The relationship of the people with the kachinas is reciprocal. People "feed" the kachinas with prayers and by performing the ceremonies correctly and the kachinas, in return, "feed" the people by providing for rain for crops. During the ceremonies, certain performers, known as "clowns," act out the things that are not a part of leading a right life. They stand out in contrast to the main kachina dancers, who dress and act properly, as a constant reminder of what is not acceptable and what consequences unacceptable behavior has.

The first Hopi-Spanish encounter was in A.D. 1540, when a small group led by Alejandro (Pedro?) de Tovar, a member of the Coronado expedition, arrived at one of the eastern Hopi settlements from the pueblo of Zuni. De Tovar was met with hostility, and he attacked and defeated the village. He then peacefully visited six other

Hopi villages. The Hopi welcomed Antonio de Espejo in 1583, and in 1598 the Hopi submitted to the authority of Spain under pressure from Juan de Oñate.

Franciscan missionaries began living and preaching among the Hopi in 1629. At least three villages had churches. Although the Franciscans reported great progress, the poisoning of one of the priests in 1633 suggests that not all Hopi were happy with their new neighbors. During the Pueblo Revolt of 1680, they killed their missionaries and took in refugees from the Rio Grande pueblos. Fearing reprisals, the Hopi moved villages to defensible mesa tops. In 1700, a faction from Awatovi favored Catholicism and was visited by a missionary, apparently at their request. After the missionary had left, anti-Catholic Hopis from several villages destroyed Awatovi, killing the men who resisted and scattering their wives and children among the remaining settlements. The Hopi then sent a peace delegation to Santa Fe requesting that they be allowed to continue their old religion. The Spanish governor rejected the entreaty and in 1701 attacked the Hopi in retaliation for the murders of Christian Hopi. Outnumbered and unable to breach the Hopi defensive positions, the Spanish force eventually withdrew.

Because they were so far from the capital in Santa Fe, the Hopi villages were somewhat protected from direct Spanish control. During the 1740s and early 1750s, the Spaniards were preoccupied with other Indian groups, and were not able to devote their full efforts to the Hopi. Drought and hunger beginning in 1755, however, caused the Hopi to gravitate increasingly toward accepting the Spaniards. By 1779, many Hopi had moved from their homeland to Zuni in order to survive; soon the population of the Hopi mesas was reduced to less than 1,000. The situation was exacerbated by a smallpox epidemic in 1781, but plentiful rain the same year marked the beginning of better times, and many Hopi were able to return to the mesas. The Hopi requested Spanish aid to protect against Navajo raids in the early 1800s, but to no avail.

The establishment of the Moqui Pueblo Agency in 1870 marks the United States government's official recognition of the Hopi. A missionary school was founded in 1874. The Hopi Reservation (originally Moqui Reservation) was created by an executive order in 1882, but the land set aside was for the use of all Indians, not exclusively Hopi. Passage of the Dawes Act in 1887 resulted in federal pressure on the Hopi to shift from family and community landholdings to individual allotments. Due to a lack of a boundary survey, conflicts with the Navajo over grazing lands intensified. Through a series of executive orders, the Hopi Reservation eventually was fully enclosed by the Navajo Reservation, and, in the 1930s, the Bureau of Indian Affairs (BIA) reduced the area officially designated as Hopi land to about one-fourth its original size.

By the 1940s, about 4,000 Hopi lived in 14 settlements. Increasing land erosion due to drought and overgrazing, as well as population increase on an ever-shrinking land base, were critical problems during the mid-20th century. A federal livestock reduction program and changes in stock management practices were instituted to remedy the erosion problem, which hit hardest in the Oraibi area. Although farming practices did not change dramatically at this time, new tools, such as the plow, began to replace more traditional methods such as the planting stick.

Fields continued to be watered from stream flooding or by hand, as they had been in the past. Efforts to irrigate Hopi lands affected only a small area and were not very successful.

The arid Hopi homeland receives sporadic and patchy rainfall, and the Hopi do not have easy access to large, predictable streams or reivers. Thus, unlike the Eastern Pueblos of the Rio Grande Valley, who irrigate their fields, the Hopi rely on dry farming by taking advantage of rainwater from the upland sandstone region that seeps down to a layer of shale and emerges at the ends of mesas.

Traditionally, the Hopi farming year began when the fields were cleared for planting around the end of February. Planting was a group effort on the part of males. Maize, the primary staple and symbol of life, was planted in holes made with a digging stick. Beans were sometimes planted among the maize stalks but more typically were raised in separate plots, as were squash and cotton. These four indigenous crops, along with post-Spanish Aztec and lima beans, gourds, sunflowers, chili peppers, onions, peaches, watermelons, and wheat, were the major crops. The Hopi also occasionally tended several wild plant species, including wild tobacco. By the beginning of the 20th century, sheep had also become important. Sheep were owned individually but herded cooperatively by men. Cattle were less popular, not only because they were expensive to purchase but because their grazing often destroyed crops. Like sheep, horses were individually owned but often tended jointly by men.

Hopi society is matrilineal and matrilocal, meaning that kinship is reckoned along female lines and women (grandmother(s), daughters, and daughters' daughters), plus husbands and unmarried sons, form the household core. Traditionally, when a household outgrew its space, a room was added to accommodate newer members. This adjacent household remained part of the lineage or clan, within which farmland was held in common and certain religious ceremonies were conducted.

Clans formed nine larger phratries, which were associated with a common mythological past. Members of the same phratry shared ceremonial and land-holding interests and were not allowed to marry within the group. Villages were and are largely autonomous, with overall village control in the hands of the village chief and the war chief. The village chief settled land disputes and was relied upon to give advice concerning any critical community matter. The war chief's power was more concrete in that he could inflict verbal or physical punishment. Clan and familiar relationships prescribe a detailed set of responsibilities for each person. It is believed that knowing and fulfilling one's role in the society leads to a sense of individual self-worth.

Traditionally, the most elaborate Hopi crafts were cotton textiles, usually woven by men on looms in their homes or in kivas. They made square and rectangular cloth for blankets and belts. Men wove women's wedding robes, belts, dresses, and shawls, men's kilts and sashes for ceremonies, as well as blankets, kilts, and shirts for daily use. Women made both undecorated pottery for cooking and storage and polished and decorated pottery for other uses. In 1895, excavations at the prehistoric ruin of Sikyatki by archaeologist Jesse Walter Fewkes led to a renaissance in Hopi pottery making. One of Fewkes' workmen,

Lesou, showed sherds from the excavation to his wife Nampeyo, who developed her own style based on these originals. Nampeyo, a Hopi-Tewa from Hano Pueblo, eventually became known as one of Hopi's finest potters, and her work is continued to this day by her extended family.

Well-known ethnographer Mischa Titiev, who lived and worked at Hopi between 1932 and 1966, proposes that the construction of paved highways linking Black Mesa with cities and towns in northern Arizona and New Mexico hastened the abandonment of traditional Hopi life. Although roads, cars and trucks, and increased tourism certainly brought great changes to Hopi in the mid- and late 20th centuries, one of the most dramatic changes of the past century may have occurred much earlier with the 1906 split at Oraibi. This major rupture between "traditional" and "progressive" factions led to the establishment of two new settlements, Hotevilla and Bacavi.

The Hopi today face a number of issues with deep and complex historical roots, including coal mining on Black Mesa and the Navajo-Hopi land dispute. The latter is the result of a 1974 congressional act intended to resolve centuries of conflict over shared territory by setting aside certain parcels for exclusive use by one group or the other. It has resulted in the displacement of hundreds of Navajo and Hopi families.

The Hopi tribe maintains the Hopi Cultural Preservation Office (HCPO), which oversees archaeological and other scientific research on tribal lands and develops research policies. The HCPO staff also conducts research on Hopi language, oral history, cultural affiliation, and linguistic and cultural connections among Hopi, Mesoamerican, and South American cultures.

Zuni

Hopis and Zunis are both Pueblo tribes and, in a general sense, share similar customs and beliefs. Zunis also have a story of emergence from three previous worlds and stories of migrations which brought them to where they are now, the Middle Place. The Zuni Pueblo is the center of the world in the Zuni perspective.

According to one account of the emergence and migrations, Father Sun traveled over Mother Earth each day and under Mother Earth each night. When he traveled above Mother Earth, he could hear the cries of his children deep inside her. One day, at high noon, he paused and created the Twin Gods to go to Mother Earth and bring the children into his light. After they were brought into the light and traveled for a short time, the time came for the people to split into different groups and continue in different directions. The Gods presented the people with two eggs and told them to pick one. The *A:shiwi* (Zuni) had first pick and chose the turquoise-colored egg. The other group got the less-attractive brown, gray, white, and yellow speckled egg. As a result of their choices, the *A:shiwi* were to follow *K/walashi* (Crow) to a cold land in the north and the other group was to follow *Mu/la* (Macaw) to a land of eternal summer in the south.

Archaeologists have shown cultural continuity in the Zuni region, also known as Cibola, stemming back over 1,100 years. The Zuni/Cibola culture area is roughly equivalent to the area claimed by the Zuni Tribe in their 20th century land claims case against the

federal government. The claim area was bounded to the north by the upper Rio Puerco River of the West and the Pueblo Colorado Wash, on the west by the San Francisco Peaks, on the southwest by the Mogollon Rim, on the south by the upper Gila River, on the east by the Magdalena Mountains, and on the northeast by the edge of the Grants lava flow. Most significant religious and other important sites are within this region.

The Zuni language is a linguistic isolate, with no known relatives in the Southwest. One Zuni perspective of the development of language suggests that people lived at *Denatsali Im'a* (near Woodruff Butte) in eastern Arizona, but that over time the palce became too crowded. When people left they traveled to the area of the current Zuni Reservation and began speaking the Zuni language. Modern-day Zunis live mainly on a reservation of over 400,000 contiguous acres in west-central New Mexico. The reservation population is over 8000 people, and most of these people live in Zuni Pueblo. In late prehistoric times the area around Zuni Pueblo and the Zuni River Valley also had relatively high populations, with at least nine villages occupied around A.D. 1400. Between six and eight villages were occupied in the fifteenth and sixteenth centuries.

The first encounter between Zunis and Europeans occurred in 1539, when Friar Marcos de Niza, along with the former slave Esteban, set out in search of the Seven Cities of Cibola. Esteban was sent ahead of the expedition, where he met the Zuni at the village of Hawikku. Esteban's welcome was met with suspicion, and he was killed. Several members of his party escaped and reported back to Friar Marcos, who retreated to Mexico. His stories, however, led to an expedition the following year by Francisco Coronado, who journeyed to Zuni and the Rio Grande Pueblos with a large army. Coronado fought a brief battle at Hawikku, overwhelmed the Zuni and occupied Zuni Pueblo, and eventually departed peacefully. Antonio Espejo in 1583 was the first to use the term Zuni.

In 1598, Juan de Oñate visited Zuni Pueblo as part of a larger effort to secure obedience to Spain from the various Pueblo groups living in New Mexico. After this time, the Zuni were largely left to continue their traditional way of life until the 19th century. Zuni population nonetheless decreased dramatically during the Spanish colonial period of the 17th century, and several villages were gradually abandoned. This development culminated in the Spanish Reconquest of the Pueblos following the Pueblo Revolt of 1680. In 1693, the Zuni abandoned all the remaining villages, including Zuni Pueblo, and consolidated atop Dowa Yallane, an easily defendable mesa. They left the mesa near the beginning of the 18th century and re-occupied only Zuni Pueblo.

During the 18th and 19th centuries Zunis, like many other village-dwellers, were the targets of Apache and Navajo raiding. As a response to this and increasing pressure from the colonial government, the Zunis established numerous refuge sites in defensive locations on the mesa edges of the Zuni River Valley near prime agricultural land. Near the end of the 19th century, after the U.S. Army had forced the Navajo to stop raiding by interring them in Bosque Redondo for four years, the Zuni concentrated their population into three villages near major springs. Zuni farmers and herders and their families lived at these villages during the summer, returning

to Zuni Pueblo in the winter. These farming villages were busy agricultural centers through the early 20th century, until farming declined in importance and the Zuni tended to live year-round in the main Pueblo.

Zuni social structure is often described as comprised of five overlapping but distinct social categories: clan, kiva, curing society, priesthood, and gaming group (the latter is largely inactive today). Also important in Zuni social organization, at least historically, was farming village residence. This complexity in social structure may be due to historic circumstances—the concentration of Zuni population from multiple villages into one. The matrilineal clan is the primary organizing structure today. An individual is born into the mother's clan and born "for" the father's clan, and each relationship carries marriage proscriptions. Upon marriage, a couple usually resides with the wife's mother until the couple can construct their own house, usually in the vicinity of the wife's parents' house. The lineage of neighboring mothers and daughters forms the backbone of Zuni society by pooling major resources, such as labor, and farming land. Lineages also cooperate in the observance of ceremonial events, such as the initiation of a child into a curing society or construction of a Shalako home. In everyday life, however, individual households are largely economically independent.

The remaining social categories are religious ones. Zuni religion consists of several independent entities: the kivas, societies, and rain priesthoods. Every male child is still initiated into one of six kiva groups, which are responsible for holding masked dances, most of them in public locations. The dances are intended to bring good fortune (e.g., rain, abundant crops, and plentiful game), to rectify a problem situation, and/or for general public enjoyment. There are several special orders, or priesthoods, as well as about a dozen societies with more restricted membership, many of which are mainly concerned with curing.

Zunis have kachina gods (also called *kokko*) but unlike the kachinas for Hopi, Zuni kachinas are present in the villages nearly all year-round. Zunis also follow a ceremonial cycle that is divided by the summer and winter solstices. Preparations for the winter solstice ceremonies begin in October. In early December, the *Shalako* gods visit previously selected and newly-built homes for an approximately week-long series of ceremonies. The *Shalako* bring the promise of renewal to the community. The New Fire Ceremony follows shortly after, marking the beginning of a new year. Families fast, make prayer offerings, and make clay representations of their wishes for the new year. Gods from the Big Fire Curing Society visit each home to give families a firebrand. Families take the firebrand to the river to make offerings and then return home to re-light their fireplaces and make additional offerings. The fast is broken and the new year begins.

Zuni world view divides the cosmos into "cooked" and "raw" people. The former are humans; the latter are the gods. Directional symbolism pervades the Zuni worldview. The Zuni recognize the four cardinal directions, as well as the zenith (up) and the nadir (down). Each is associated with its own color, type of rain, gods, game animals, and birds. Kivas are also connected to this directional symbolism, as are the rain priesthoods.

Traditional farmers, the Zuni once practiced extensive floodwater

irrigation, relying on the construction of check dams, diversionary dams, and mud walls to divert snowmelt and rainwater from seasonal storms to agricultural plots. Maize fields were placed in the silted areas behind check dams. This land use strategy resulted in a pattern of scattered plots of various sizes covering a large area. The few permanent water sources in the Zuni area (Ojo Caliente, Ojo Pescado, and Nutria Springs), provided a reliable supply of drinking water and also became areas of irrigated agriculture. Zunis used canals to irrigate fields at the time of Spanish contact, and recent archaeological data suggests this practice dates to some 3,000 years ago in the Zuni area. Historically, maize was the most significant crop. "Waffle gardens," constructed of low, rectangular mud walls, also were placed along the Zuni River. These smaller, hand-watered family plots were used to grow peppers, onions, squash, melons, pumpkins, and cotton.

As farmers in a desert-like climate, much thought and effort is given to securing adequate rains. The kick-stick race is but one example of such a practice. Teams of three to four people run a 20- to 40-mile course throughout the reservation. Runners run barefoot, lifting and kicking a small stick with their toes as they go. The action of the stick symbolizes the debris that water rushing the dry arroyos will push ahead of itself when the summe rains come. The runners themselves represent the water and the entire race is prayer in motion.

Modern-day Zunis practice a mixed economic strategy emphasizing wage work, craft production, stock raising, and small-scale farming. Zuni artists are known for their silver and stone jewelry, pottery, and stone fetishes, among other items. Most Zunis live within Zuni Pueblo. The Zuni have a Tribal Constitution that created two governmental branches: the Tribal Council and the Courts. The Tribal Council, which is responsible for creating and administering laws, is elected every four years by adult tribal members. The Tribe supports the Zuni Cultural Resource Enterprise, and the Zuni Heritage and Historic Preservation Office (ZHHPO). The former conducts historical, anthropological, and archaeological work both on and off the reservation and provides data management and information technology service. The ZHHPO, created in 1994, includes the position of Tribal Historic Preservation Officer.

The Zuni Tribe has recently been successful in their efforts to reclaim tribal lands that were lost during the late 1800s and early 1900s. Many areas that had historically been occupied by the Zuni were settled by Mormon and Hispanic settlers, as well as by an increasing Navajo population. The construction of the railroad in 1882 promoted ever greater land loss, as large numbers of cattle were imported and grazed along the margins of Zuni territory.

By 1934, the Zuni were restricted to their reservation boundaries. Because of an error made by the federal government, the Zuni Tribe did not file with the Indian Claims Commission Court in the 1950s. It was not until 1982 that the Zuni were able to win a claim for compensation for lost lands; the tribe has continued to reclaim additional lands in the vicinity of the reservation, often through litigation or land exchanges. The tribe also continues to work towards repatriating numerous ancestral Zuni artifacts and burials.

Navajo

The Navajo, or *Diné*, currently are the largest Native American group in the United States, with a population over 200,000. The Navajo have made a dramatic comeback since their incarceration at Fort Sumner (Bosque Redondo) in the 1860s when their total population numbered less than 10,000 before incarceration. The nearly 14 million acre Navajo Reservation covers portions of Utah and New Mexico with the largest portion being in Arizona. It completely encloses the Hopi reservation. The Navajo Nation capitol is at Window Rock, Arizona. The Navajo also live in several discontinuous areas: the eastern checkerboard of New Mexico, and the Ramah, Alamo, and Tohajiileeh (formerly known as Canoncito) chapters of New Mexico. A large Navajo community that is not part of the Navajo Nation can also be found on the Colorado Indian River Reservation on the Arizona-California border. This reservation is shared with members of the Mohave, Chemehuevi and Hopi tribes.

Linguistically, the Navajo are Athabaskan, speaking a language closely related to the Apachean groups of the Southwest. The Athapaskan (Na-Dene) language family has its origins in Alaska and Canada, and the Southern Athapaskan, or Apachean, languages only became distinct in the last 1,000 years. During WWII, Navajo "Code Talkers" played a significant role in the U.S. war effort in the Pacific by using a combination of the Navajo language and English spelling to send messages. Because the Navajo language is quite complex and, at the time, virtually unknown outside the United States, the code was never broken and is credited with giving the Allies an advantage over their enemies, saving lives, and even hastening the end of the war. The Navajo Code was not declassified by the U.S. government until 20 years after the end of the war.

Athabaskans' arrival in the Southwest from northwest North America is a topic of much debate. The most recent anthropological research suggests it was around A.D. 1400 or 1450. Archaeologically and historically, distinguishing Navajo from other Athabaskan tribes is difficult, a problem that is made even more difficult by a mobile lifestyle. Researchers believe Navajos initially spread into southern Colorado and northern and eastern New Mexico, areas that were largely unoccupied between A.D. 1300 and 1400. The earliest Spanish accounts mention what may be Navajo or other Apache groups. Fray Zarate Zalmeron's 1627 use of the term "Apaches de Nabaju" is the first documentary reference to the people living in what is present-day northwest New Mexico, but Zalmeron may refer to a geographic location rather than a distinct group of people. Coronado reports "Querechos" on the Plains in 1540, and Espejo mentions the same group near Mt. Taylor in 1583. Navajo oral history holds that they were present at Canyon de Chelly by A.D. 1692.

Regardless of the timing of their arrival in the Southwest and their emergence as a distinct group, it appears that early Navajos were largely hunter-gatherers, who hunted deer, rabbits and jackrabbits, and who gathered goosefoot, cattails, cacti and squawberries, as well as practicing limited maize horticulture. During the Pueblo Revolt period and the Reconquest period, interaction between Pueblos and Navajos increased as Pueblo people sought refuge with nomadic groups.

Navajos built small masonry structures known as pueblitos between the late 1600s through mid 1700s. These structures are interpreted as Navajo responses to Spanish incursions and Ute raiding. Pueblitos are known from northeastern Arizona as far west as Black Mesa.

By the early 1700s, Navajos were more regularly tending livestock and growing corn, beans, and pumpkins. They lived in log or stone hogans, particularly in the winter, and built temporary herding camps as they moved from grazing area to grazing area. The Navajo also depended economically upon raiding their Pueblo and Hispanic neighbors, a pattern that persisted through the mid-1800s. Pueblo and Hispanic villagers retaliated with raids of their own. American military forces attempted to stop the raiding between 1847 and 1851, but had little success. The establishment of military forts (such as Fort Defiance in Apache County) marked a concerted effort to remove the Navajo threat to settlers. In 1864, the majority of Navajos were captured and sent on the "Long Walk" to Fort Sumner at Bosque Redondo, New Mexico. More than 8,000 Navajos, as well as some Mescalero Apache who had not fled south, were marched 350 miles through spring blizzards from Fort Defiance to Fort Sumner.

Following the Navajo Treaty of 1868 and the establishment of the Navajo reservation—which at that time was almost entirely in Arizona—the Navajo returned to find that much of their territory was occupied by Anglo settlers. Several Navajo groups (including members of a band of "enemy Navajo" who had collaborated with the U.S. Army) settled in the areas which were to become the checkerboard, and the Tohajiileeh, Alamo, and Ramah reservations. The checkerboard is the legacy of the late 19th century, when the United States granted alternate sections of land to the railroad and the Territory of New Mexico, and opened the rest to homesteading. Homesteads were limited in size, and people claimed land with permanent water sources. Individual Navajos were awarded homesteads outside of the reservation boundaries, which are known today as Indian allotment lands. These developments set the stage for the complicated settlement patterns and confusion over land claims of the 20th century. The United States Government has recently attempted to consolidate Navajo land holdings through administrative withdrawals, land exchanges, and outright purchase.

By the turn of the 19th century, herding, agriculture, and government assistance had largely replaced the more traditional Navajo hunting and gathering lifeway. Navajos also relied increasingly on trading posts and wage labor associated with railroad construction. Competition for land intensified with an increase in cattle grazing between 1880 and 1920.

Navajo social structure is characterized by matrilineal clans that shape patterns of marriage, descent, residence, and inheritance. An individual is born into his mother's clan and is born "for" his father's clan, and must marry outside both clans. Traditionally, Navajo families are composed of parents and unmarried children, with married children, preferably daughters, living nearby. The resulting household compounds are located near fields. Additional seasonal residences are found throughout grazing areas. Families living in the same house pool resources such as food and cash; families living in the same compound

pool their labor and land resources. Cooperating compounds in geographic proximity linked by kin ties and share access to major resources such as water are called outfits. They typically follow the leadership of a male head and gather for significant events like stock roundups and large ceremonies.

Navajo religion is organized into a system of ceremonies which are designed to reestablish harmony, beauty, health, and natural order to the world. Ceremonies are mainly for curing disease and are performed for a patient under the direction of a "singer", who is paid for his services. According to the Navajo worldview, the world is composed of superimposed hemispheres supported by pillars. The number of reported hemispheres varies; there are at least four underworlds, this world, the sky, and one world above the sky.

Everything in the world has both male and female qualities. For people, whether male or female, the left side of the body is considered male and the right side female. In hogans, the traditional homes, when one faces the entrance (which is always east), the left side of the home is male and the right side female. The sky is Father Sky, and thus male, and the earth is Mother Earth and thus female. Life occurs where earth and sky touch.

Dinetah, or the traditional homeland of the Navajo *(Diné)* is bound by four sacred mountains: *Sis Naajiní* (Mount Blanca) in the east, *Tsoodzil* (Mt. Taylor) in the south, *Dook'o'oosliid* (San Francisco Peaks) in the west and *Dibé Nitsaa* (Hesperus Peak) in the north. The mountains were created by the *Dinyin Dine'é* (Holy People). These are the four pillars that support the world and each mountain and direction has many layers of meaning that affect almost every aspect of life. The east is the direction of physical and mental knowledge. Children are taught string games, which are played during the winter, to develop concentration and dexterity. The ability to concentrate is seen as essential to grow in understanding and respect. East, being the direction from which the sun rises, is the organizing direction for all activities. Hogan doors always face east. When hogans are built, the eastern posts are placed first. Baskets and wool are woven and spun in a clockwise (sunwise) direction. South is the direction of daily tasks and responsibilities. People keep their farming and herding implements on the south side of the hogan. Looms, when not outside for the summer months, are also placed along the south wall. Weaving is as much about the process—from raising the sheep to the actual weaving on the looms—as it is about the finished product. As one weaves, one gives thanks for the sheep, the plants that make the dyes, and for the trees that provide the parts of the loom and other weaving tools. The patterns woven into the textile, stylized male and female lightning stripes, mist, and clouds are a way to give thanks that these elements visited. The west is the direction of social and family responsibility. Sheepskins are kept along the west wall of a hogan and are used for family storytelling sessions in the evening, when visitors come, and for sleeping. The North is the direction of ceremonial knowledge and objects. Herbs, minerals, and other items used in ceremonies are kept along the north wall of a hogan. There are two primary types of ceremonies: Blessingway ceremonies that give thanks and reaffirm the balance, beauty, and harmony of life as it is supposed to be and Protectionway ceremonies that address situations when illness or other forces are present and indicating a life

out of balance. Protectionway ceremonies are led by a singer for the benefit of a particular patient, but the attendance of family members is an important part of the total healing process. The sand paintings that often accompany such ceremonies are visual reminders for the patient and attending family members alike of the way the *Dinyin Dine'é* first created the world in a perfect state of harmony and balance.

Asdzáá Nádleehé (Changing Woman) was born when a dark cloud passed over *Ch'óol'i'í* (Gobernador Knob in northwest New Mexico) and lived most of her life within the bounds of the four sacred mountains. The *Dinyin Dine'é* told First Man and First Woman how to care for her and they fed her pollen and dew. *Asdzáá Nádleehé* grew into adulthood quickly, in four days or four years depending on the particular version of the story. When she reached maturity, *Dinyin Dine'é* held a ceremony for her. This is still an important ceremony held for girls as they reach maturity. She taught the animals and people how to live well within the four mountains. She gave birth to twin sons, *Naayéé' Neizghaní* (Monster Slayer) and *Tó Bájíshchíní* (Child Born of Water) whose job it was to try and rid the world of evil. *Asdzáá Nádleehé* also created the four original Navajo clans: *Kin yaa'áannii* (Towering House Clan), *Honágháahnii* (One Who Walks around You Clan), *Tó dich'ii'nii* (Bitter Water Clan), and *Hashtl'ishnii* (Mud Clan). Eventually *Asdzáá Nádleehé's* husband, the Sun, asked her to live with him in the Western Ocean. *Asdzáá Nádleehé* performed a Blessingway ceremony on herself and left blessings for the people who lived between the mountains. The passing of the days and the passing of the seasons are reflections of the rapid life stages of *Asdzáá Nádleehé* from birth to maturity to old age.

Many people continue to orient their lives in accordance to these cultural beliefs and traditional ceremonies. Many also continue to make a living through livestock husbandry. Tourism and arts and crafts also provide some income. The Navajo are known for their skilled weavers (typically, but not exclusively, women) of wool blankets and rugs, as well as their silver jewelry. The Navajo Tribe takes an interest in managing cultural resources on Navajo controlled lands. The Navajo Nation Historic Preservation Department (NNHPD), created in 1986, oversees permitting of archaeological and anthropological work performed on Navajo land and develops policies and standards for such work. The NNHPD also reviews federal antiquities permits and actions taken outside of Navajo lands but within a 200 mile radius around them for their potential effect on Navajo culture.

White Mountain Apache

The Fort Apache Reservation bounds the proposed Little Colorado Heritage area on the south along the Mogollon Rim. The Reservation, ranging from 2,700 feet to almost 11 ,500 feet in elevation, includes the traditional territories of the Cibecue and White Mountain Western Apache groups (collectively, the Coyoteros) north of the Salt and Black rivers. The Apache, or *Ndee* (the People), as they call themselves, were once part of a larger group of Athapaskan-speakers who moved into the Southwest around A.D. 1400. Limited archaeological and anthropological evidence indicates that they initially were buffalo hunters living in areas where the mountains met the plains. The Western Apache (the San Carlos, White Mountain, Cibecue, and Tonto people of central Arizona) and the Navajo probably

moved westward early. The Lipan and Jicarilla Apache of the west Texas plains and northern New Mexico mountains, respectively, split off by about 1600. The Mescalero and Chiricahua Apache moved into southern New Mexico by the early 17th century.

At first, Pueblo and Apache people seem to have coexisted relatively peacefully. Spanish explorers found Apaches lived in the mountains surrounding Pueblo villages, where they had established regular trade relationships. Confrontation began when Apaches raided Spanish expeditions for food and horses. The soldiers retaliated, initiating full-blown hostilities between the two groups. Relationships among Pueblos, Apaches, and Spaniards deteriorated through the 1600s. Sonora and Chihuahua were the earliest and most intense areas of conflict. By the early 1700s, the Apaches held sway as far north as Zuni Pueblo. Western Apache groups ranged through nearly 90,000 square miles of territory, an area equivalent to three-fourths of the state of Arizona. Eventually, the northern limits of New Spain were defined by the extent of Apache territory, called Apachería by the Spaniards. Explorers also gave Spanish names to each Apache band they encountered.

Within Apachería, the Apaches developed their culture through the 18th century, often remaining protected in rough mountain strongholds. Raiding became a way of life, something that the Apache viewed as a necessity of the times due to the fact that Spanish land grants limited the ability of the Apache to access much of their previous hunting and gathering spaces. The Apache essentially cut off New Mexican settlements near Santa Fe from the Sonora-Chihuahua frontier. Constant conflict with the Apache weakened the Spaniards and contributed to their defeat during the 1680 Pueblo Revolt.

Finally, in 1786, the governor of New Spain tried a different approach, one that eventually was devastating to the Apache, especially the southern bands. He instructed Spanish populations to make peace with the Apache, convince them to live near presidios, and supply them with food and drink. His goal was to make them dependent on the Spaniards. The Spaniards also sought to undermine any solidarity among the various bands by stirring up trouble among them. During the Mexican period of the early 1800s, Mexico's fledgling revolutionary government could not afford to buy the Apaches' dependency. By 1835, the Apaches had returned to raiding, which was full-blown when the United States took control of Apachería in 1847.

Initially, the Apache welcomed the Americans as potential trade partners. When the U.S. authorities objected to the Apaches' continued raiding of Mexican homesteaders, however, relations rapidly deteriorated. From the Apache point of view, raiding was necessary for their survival—even more after Anglo settlers began appropriating Apache land and disrupting traditional food gathering rounds. The U.S. responded by constructing a series of forts across Apache territory. These were no more effective than the Spanish presidios at preventing raids or protecting settlers, but they did house large numbers of troops, which repeatedly conducted punitive attacks. A number of brutal massacres eventually culminated in a formal U.S. peace policy in 1871, which called for the concentration of Apache bands on reservations. The Camp Verde, San Carlos, and Fort Apache

reservations of Arizona were all founded at this time.

Throughout the 1800s, the White Mountain and Cibecue bands largely avoided conflicts with the Americans. They did not outwardly resist the founding of the military outpost that became Fort Apache in 1863, even when the Army restricted hunting. Since animal skins became hard to obtain as a result, tipi use ended and styles of dress changed. Encouraged by the respected White Mountain chief Alchesay, many Apache men joined the U.S. forces in their fight against the southern Apache in order to earn wages.

White Mountain Apache territory was mostly outside the areas most affected by pioneering and mineral prospecting in the late 1800s and early 1900s, and they were able to continue their traditional lifeways longer than other Apache groups. This meant that they were on the move for most of the year following the seasonal availability of plants and animals. Traditionally important wild plants included yucca, tule roots and pollen, mescal, locust flowers, wild onion, ponderosa pine bark, sumac berries, juniper berries, strawberries, chokecherries, wild potatoes, mulberries, pitahaya cactus, screwbean mesquite, saguaro fruit, prickly pear, mesquite, walnuts, piñon nuts, greens, acorns, grasses, amaranth, sunflower seeds, and honey. About one-quarter of their diet also came from cultivated crops.

Grenville Goodwin's anthropological research among the White Mountain Apache is one of the key sources of information on traditional Western Apache kinship and social organization. The Apache traditionally lived in extended families organized into local groups (35-200 people) that were loosely connected into bands. Neighboring bands with shared cultural traits were interpreted by outsiders as tribes, but to the Apache, the local group was always the most important unit of social organization. Chiefs with limited power were elected to lead small groups; their influence depended upon bringing success to their followers in hunting, raiding, and warfare. Clan membership further tied families and local groups together.

Apache families revolved around women; sisters and daughters lived together throughout their lives. Women established camp, building wickiups in the mountains and setting up tipis on the plains. Women also did most of the gathering and cooking, as well as tending of farm plots. Men became part of a family and local group via marriage. They were responsible for hunting, raiding, and warfare. Men or women could conduct ceremonies and curing rites, although most ritual specialists were men. Both men and women carried on oral histories and group traditions.

Apache religion is characterized by two elements: the individualistic, visionary shaman and the learned priest, or "singer", who conducts standardized rituals. Neither person carries any authority other than his own knowledge and ritual power. Rituals are conducted to mark major changes in an individual's life-cycle, when a person is sick or threatened, or to bless an undertaking. Traditions and ceremonies remain strong today, and many sacred sites still lie within sight of modern Apache homes.

Like their Athapaskan cousins the Navajo, White Mountain Apache also have a belief in Changing Woman and elaborate, four-day ceremonies are held for girls when they reach the stage of

physical maturity. The ceremony incorporates some of the moments of Changing Woman's life and the whole ceremony is a symbol of her rapid growth from a baby to adulthood. Apache girls are seen as essentially changing from girls to women during the four days. Most of the ceremony takes place under a ceremonial tipi made of four poles of four different woods common to the region and decorated with the four colors associated with the four cardinal directions: black for the east, blue for the south, yellow for the west, and white for the north. Four represents the four days during which the world was created (everything began as black and in the east the earth was created, then in the south the sky became blue, the yellow sun appeared in the west, and lastly white clouds were made in the north), the four stages of life (birth, childhood, adulthood, and old age), the four directions, and the four seasons. During the ceremony, the girls take on the personage of Changing Woman and have the power of healing. *Gaan* spirits appear each night and dance to protect the girl during her transition from girlhood to womanhood. *Gaan* come from the four directions of the world and their primary job is to keep it steady. Accompanying the *Gaan* is *Libaiyé,* a type of "clown" who is also called the "Gray One." He is guide, messengers, and protector for the *Gaan* and he also represents whirlwinds and the unpredictability of life.

Just as east is the direction of life, since that is where the life-giving sun rises, west is the direction of death. Traditionally, when an Apache person died, they were removed from their wikiup through a hole in the west side.

Many changes affect the Apache of the 20th and 21st centuries. Whiteriver became the dominant reservation town after Fort Apache was decommissioned in 1922. Many Apache have started to follow, at least partially, more non-Native American ways, although Apaches continue to retain their distinct culture. By 1952, about 80 percent of Arizona Apaches spoke English. Today, Fort Apache has bilingual/bicultural public schools. New communities have divided traditional bands and disrupted intermarriage rules. Newly unified clans, once dispersed among isolated local groups, now define much of an Apache's social identity. Family and kin ties remain strong and highly valued. Although nuclear families have replaced the family cluster and local group, women continue to form the core of Apache society.

Of all the Apache groups, the White Mountain Apache may be the most economically successful in the modern era. Since the Depression of the 1930s, when the last Anglo grazing lease on Apache land expired, the cattle and timber industries have become integral to the community economy. The tribe owns a sawmill that generates $30 million annually and employs over 400 people, 90 percent of them Apache. The tribal Recreation Enterprise, begun in 1954, now includes Sunrise Ski Area and resort, with about $9 million in revenues per year. Summer cabin leases and camping, fishing, and hunting permits provide additional income as well as revenues from the Hon-Dah Casino.

DISTINCTIVENESS OF THEME

The diverse and vital Native American history and cultural traditions of the Little Colorado region make it distinctive among National Heritage Areas. Particularly significant are the ongoing relationships that living Native

American groups maintain with the archaeological landscape. Native peoples have occupied the Little Colorado area for thousands of years, and many archaeological and historical sites continue to play a key role in the Native American oral history, religion, economy, and politics (see also Chapter 5). Therefore, the proposed Little Colorado National Heritage Area would play a key role in preserving and conveying Native American values and lifeways.

RELATED RESOURCES

Numerous museums, parks, fairs, and other events and institutions, both within and beyond the Little Colorado area, provide opportunities for the public to experience the area's rich Native American cultures. A sampling of these (see also Resources Table) includes the Museum of Northern Arizona in Flagstaff, the A:shiwi A:wan Museum and Heritage Center at Zuni Pueblo, the Explore Navajo Nation Interactive Museum in Tuba City, and the Hopi Cultural Center and Restaurant at Hopi. Farther afield, the Heard Museum in Phoenix and the Arizona State Museum in Tucson highlight Native American cultures of Arizona. Numerous arts and crafts markets, such as the Museum of Northern Arizona Indian and Spanish Shows, and the Pueblo Grande and Heard Museum shows in the Phoenix area, showcase the rich artistic traditions of Little Colorado area tribes. Many reservation communities also regularly host arts and crafts markets. Powwows, fairs, and dances at various pueblos and Navajo chapters and in towns like Gallup and Flagstaff often are open to the public, and many reservation communities welcome visitors. Significant historic sites and buildings include the areas many trading posts, like the Hubbell Trading Post National Historic Site, as well as other historic sites like Fort Wingate.

RELATED RESOURCES LIST

See Related Resources List after "Archaeology" section of this chapter. Lists for Native Nations and Archaeology have been combined due to the overlapping affiliation of many of the resources.

PRIMARY REFERENCES

Dutton, Bertha P.
1983 *American Indians of the Southwest*. University of New Mexico Press, Albuquerque.

Ferguson, T. J., and E. Richard Hart
1985 *A Zuni Atlas*. University of Oklahoma Press, Norman.

Gilpin, Dennis
2004 Protohistoric Navajo Colonization of Northeastern Arizona. Paper presented at the Fall 2004 Arizona Archaeological Council Conference, Faint Traces of Past Places: The Archaeology of Low Visibility Groups in the Southwest, A.D. 1200-1900.

Holmes, Barbara E.
1989 *American Indian Use of El Malpais*. University of New Mexico Project No. 185-387 and Zuni Archaeology Program Report No. 302. Office of Contract Archaeology, University of New Mexico, Albuquerque.

Oswalt, Wendell H., and Sharlotte Neely
1996 *This Land Was Theirs: A Study of North American Indians*. 5th Ed. Mayfield Publishing Company, Mountain View, California.

Towner, Ronald H.
2004 The Navajo Occupation of Northwestern New Mexico. Paper presented at the Fall 2004 Arizona Archaeological Council Conference, Faint Traces of Past Places: The Archaeology of Low Visibility Groups in the Southwest, A.D. 1200-1900.

Trimble, Stephen
1993 *The People: Indians of the American Southwest*. SAR Press, Santa Fe.

Washburn, Dorothy K.
1995 *Living in Balance: The University of the Hopi, Zuni, Navajo, and Apache*. University of Pennsylvania Museum, Philadelphia.

Wilshusen, Richard H.
2007 Ethnogenesis at the Edge of History: The Northern Southwest between AD 1500 and 1750. Paper presented in the symposium "Across the Great Divide: Continuity and Change in Native North American Societies, AD 1400-1850" at the 72nd Annual Meeting of the Society for American Archaeology, Austin, Texas.

Theme 5
Archaeology

SUMMARY OF THEME

The number, variety, and significance of archaeological sites found in the Little Colorado River Valley are rivaled by few other locations in the country. These sites not only contribute greatly to our understanding of past lifeways in the American Southwest, but also have provided a foundation for numerous advancements in archaeological field methods over the past two centuries.

While many Little Colorado sites are fragile, currently unprotected, or otherwise not appropriate for visitation from members of the general public, they continue to serve as important landmarks for the history and cultural development of modern-day Hopi, Zuni, Navajo, and White Mountain Apache people (see "Native Nations" theme). Visitors with an interest in archaeology, however, are not at a loss for interesting places to see in the Little Colorado area.

Several state and national parks or monuments feature ruins and petroglyphs from various time periods and cultures. Extensive artifact collections and exhibits can be found at the Museum of Northern Arizona, and many smaller museums throughout the region also display artifacts. Archaeology is further supported by three highly respected educational programs at Northern Arizona University, Arizona State University, and the University of Arizona, and by a network of site steward volunteers and avocational archaeologists in both Arizona and New Mexico.

DESCRIPTION OF THEME

The Little Colorado area contains the remains of prehistoric and historic occupations dating back at least 12,000 years and spans two major late prehistoric archaeological culture areas: the Anasazi or Ancestral Pueblo and Mogollon. These groups eventually coalesced to form what anthropologists call the Western Pueblo. Later, Apache and Navajo groups made the Southwest their home, and together with the Hopi and Zuni Pueblo people, continue to occupy much of the Little Colorado area. Archaeological remains of Hispanic, Mormon, and other historic period settlers also dot the landscape and remain powerful reminders of the more recent past. The following overview briefly summarizes the Little Colorado area's long, rich, and diverse past, highlighting some key resources and significant archaeological advances of particular localities.

Overview of Prehistoric Culture History

Approximately 15,000 years ago, populations crossed the Bering Strait land bridge from Asia into North America. These groups likely arrived following the Wisconsin glaciation, when sea levels were low and an ice-free corridor existed between glaciers on the east side of the Rocky Mountains. Except for a few highly controversial sites purportedly of great antiquity (e.g., Sandia Cave near Albuquerque, New Mexico), the Southwest's Paleoindian occupation

traditionally is dated between around 10,000 and 5500 B.C. The Pleistocene climate was wetter than previously, causing the expansion of savannas and the westward spread of several large mammal species, or megafauna, like mammoth, bison, horse, camel, dire wolf, and several antelope species. The distinctive, fluted Clovis and Folsom points are well-known examples of specialized Paleoindian hunting technology. In addition to hunting, Paleoindian groups also must have collected edible wild plants.

Paleoindian populations are envisioned as small, highly mobile family bands. They often obtained stone tool raw materials from very great distances, either through trade or as a result of considerable population mobility. Paleoindian sites typically are characterized by the presence of diagnostic projectile points found either in isolation or in association with small scatters of chipped stone artifacts. Because of their great age such sites are relatively rare. In the Little Colorado watershed, isolated Clovis and Folsom points have been found near Sanders, Houck, the St. Johns/Concho/Lyman Lake area, Winslow, on the Hopi mesas, and in the Petrified Forest.

The less-specialized Archaic adaptation that emerged within a relatively dry climatic period around 5500 B.C. marks the end of the Paleoindian period. The term "Archaic" designates both a time period and a way of life characterized by hunting (both small and large game) and gathering (mainly plant seeds). Throughout the Southwest, archaeologists generally identify the beginning of the Archaic period with the appearance of grinding equipment and the end of the Archaic with the appearance of pottery and horticulture around A.D. 200. Recent data, however, point to integration of agriculture into some southwestern communities as early as 3,500 years ago, indicating this definition of the Archaic may be too simplistic.

Initially, the Archaic lifeway was not much different from the Paleoindian: highly mobile, small group size, and mixed hunting and gathering. Eventually, however, Archaic populations began to rely more heavily on wild plant foods and less upon hunting, perhaps because the climate again became wetter and stimulated increased plant growth. The number of known Archaic sites also increases through time, not only because more recent sites are more likely to be visible to archaeologists, but also because overall population size probably increased. By the end of the Archaic, habitation sites often had large, shallow storage pits as well as concentrations of fire-cracked cobbles and artifacts. Structural architecture generally was lacking. Hearths, bell-shaped pits, cobble cairns (possibly roasting pit debris), and a variety of pit structures are known. Archaic period basketry, rabbit fur clothing, yucca twine robes, woven bags, wood digging sticks, jewelry in various media (stone, shell, bone, feathers and seeds), atlatls, bone tools, and possible ritual objects occasionally are preserved in dry rockshelters.

Like Paleoindian sites, obvious Archaic period sites are not well represented in the Little Colorado area. Some of the better known are on Black Mesa near Hopi, where a large number of early agriculture sites dating to the late Archaic and/or succeeding early Ancestral Pueblo (Basketmaker) periods are represented. In addition, several sites along Y-Unit draw in the Zuni region have Archaic or Basketmaker II components. These

sites, excavated by the Zuni Cultural Resource Enterprise, provide evidence for early agriculture at the Archaic-Pueblo transition.

After about A.D. 200, around the time that pottery was first made and used in the Southwest, the archaeological cultures traditionally identified as the Anasazi and Mogollon emerge. This distinction persists until about A.D. 1000, when the two cultures presumably merged into what archaeologists commonly refer to as Western Pueblo. In the northern Little Colorado region (from about Holbrook, St. Johns, and Quemado north to the San Francisco Peaks) archaeologists classify sites as Anasazi or Ancestral Pueblo and generally follow the Pecos Classification for this area developed by A.V. Kidder in the 1920s. In the southern Little Colorado, including the Upper Little Colorado and Forestdale regions, pre-A.D. 1000 sites are understood within the Mogollon framework. The area around Flagstaff south to the Mogollon Rim is classified as Sinagua, an archaeological culture that also contributed to the Western Pueblo identity.

Anasazi or Ancestral Pueblo

The Pueblo period in the northern Southwest typically is viewed as a period of dramatic change. Researchers generally agree this period was marked by minor droughts across the Colorado Plateau, accentuating the risks associated with dependence on domesticated crops. Notable developments early in the Pueblo sequence include: (1) increased reliance on maize horticulture, (2) widespread adoption of ceramic technology and the development of regional pottery styles, (3) the introduction of the bow and arrow and concomitant changes in hunting strategies, and (4) more complex architecture, including a transition from pit structure habitation to aboveground masonry rooms. An increased emphasis on stored resources also is apparent. Early Pueblo (Basketmaker II and III) populations continued to use the atlatl, basketry, basin grinding slabs, and cobble manos and exploited wild plants and animal foods. Utilitarian pottery was gray in color and serving vessels (bowls and jars) typically had black painted designs on a gray or white-slipped background. Viewed together, these changes point to increased sedentism beginning sometime between A.D. 400 and 800 across most of the northern Southwest.

During the Pueblo I period (A.D. 700–900), environmental conditions in the northern southwest deteriorated somewhat, resulting in subsistence stress for horticultural groups. Settlements generally increased in size during the Pueblo I period, probably reflecting overall population growth. Habitation began to shift from semisubterranean pit structures to above-ground masonry rooms. Pit structures were retained as kivas used mainly for ceremonial purposes. Red-slipped pottery with black painted designs was introduced at this time.

The Pueblo II period (A.D. 900-1150), was a time of marked regional differentiation. Other than the dramatic great houses of Chaco Canyon and elsewhere in the San Juan Basin (just northeast of the Little Colorado area), Pueblo II settlements were somewhat smaller and more dispersed than previously. Masonry surface rooms were increasingly used for living space and kivas for ceremonial space.

During the Pueblo III period (A.D 1150-1300), also known as Great Pueblo,

large, multistory pueblos were constructed in many areas of the northern Southwest. Around A.D. 1130, severe drought affected portions of the region, making some areas less attractive. Populations left these localities and began consolidating in areas such as Mesa Verde in the Four Corners, Canyon de Chelly (just outside the Little Colorado watershed), and the Zuni region. Notably, the Chaco regional system, which influenced much of the northern Southwest, changed dramatically as the great houses were largely abandoned or altered in function.

The Pueblo III to Pueblo IV transition at about A.D. 1300 witnessed a dramatic reorganization of the social landscape, including large scale migrations, widespread conflict, and the development of new religious systems. At this point former Anasazi and Mogollon groups cannot be distinguished from one another and are considered to be Ancestral Pueblo.

During the Pueblo IV period (A.D. 1300 to ca. 1600), many portions of the northern southwest were essentially empty and other areas, including many localities of the Little Colorado area, were densely populated. Pueblo settlements became much larger overall and were typically oriented around one or more plazas. A tradition of brightly colored, polychrome pottery, much of it decorated with glaze paint, developed along the Mogollon rim and spread north and east. Exchange of cotton, pottery, obsidian, and other items was widespread. Many of these items were directly or indirectly connected to pan-Southwestern religious traditions (the Southwest Regional Religion or Kachina Religion) that emphasized rain, fertility, and social integration of diverse populations.

Mogollon

The far southern portion of the Little Colorado watershed includes areas traditionally considered to be part of the Mogollon archaeological culture. Beginning around A.D. 200, during the Mogollon Early Pithouse period (A.D. 200-550, groups living in the mountainous country of southeastern Arizona and southwestern New Mexico began producing characteristic brownware utilitarian pottery. They also constructed pithouses and practiced maize agriculture. Early Mogollon settlements in eastern Arizona were on high, defensible landforms, and occupations were either seasonal or short term.

During the Late Pithouse period (A.D. 550 to ca. A.D. 1000), there was a change from pithouses to above-ground, masonry or cobble pueblo-style dwellings. Mogollon potters began producing red-slipped decorated pottery in many areas and black-on-white pottery in other areas (notably, the Mimbres region). In eastern Arizona, later Mogollon settlements were typically not much larger than earlier Mogollon settlements, but were located on valley floors near potential horticultural lands. A few larger settlements probably served as centers for more dispersed populations. During the 1200s, large pueblos appear in portions of the eastern Arizona Mogollon territory. Considerable influx of Anasazi populations probably began around this time, and by the 1300s the occupied portions of the former Mogollon area are considered part of the larger Western Pueblo culture.

Sinagua

The area between the San Francisco Peaks near present-day Flagstaff,

Arizona, and the Verde Valley to the south was occupied, from around A.D. 650 to 1300, by an archaeologically distinct group known as the Sinagua. The Sinagua area has been called a "frontier" in which diverse cultures intermingled. The northern Sinagua, around Flagstaff, initially constructed pithouse villages at the interfaces between piñon-juniper woodlands and ponderosa forests, where they farmed and where they also hunted and gathered. Later, the northern Sinagua established large, pueblo-style, masonry villages. The southern Sinagua farmed on the fertile mesas along the Mogollon rim.

Both the northern and southern Sinagua groups had ties with the Hohokam to the south, and the southern groups also interacted with Kayenta populations. Some time after about A.D. 1300, the northern Sinagua left the San Francisco Peaks area, forming villages in the Wupatki area and joining groups at Anderson Mesa to the southeast. Eventually these groups made their way to Hopi. The southern Sinagua appear to have directly joined groups already living in the Hopi area.

Historic Period Archaeology

For many, history in the Southwest begins around A.D. 1540 with the Spanish entrada. The Native Peoples of the region show clear continuity across this time period, and their oral histories and traditions connect them directly to the places of earlier times. They are often closely connected to those places and continue to use them in one form or another although they may appear to be abandoned. Present uses include religious purposes, plant or other resource gathering, and seasonal occupation (such as Zuni farming villages). Notably, many prehistoric sites and particular geographic areas often figure prominently in migration legends and clan histories.

In addition to prehistoric and historic Native American archaeology, the Little Colorado area contains the legacy of more recent groups that have come to reside there. Early in the area's history, Hispanic settlers ranched and farmed in the area. Mormon pioneers followed, and today many Little Colorado towns reflect a strong Hispanic or Mormon heritage. Railroading, mining, and commercial ranching were and continue to be major economic activities that have each left respective material traces. Historic archaeological remains in the Little Colorado area thus consist of the remains of homesteads, ranches, forts, trading posts, hotels, mining towns, schools, cemeteries, railroads, and other historic structures and features. Some of these are listed on State or National registers of historic properties, but many currently lack such formal recognition.

Little Colorado Heritage Area Subareas

Since the Little Colorado watershed includes a wide range of archaeological resources attributed to different archaeological cultures, regions, and time periods, the following sections provide summaries for smaller, individual subareas. These subareas have both geographical and archaeological meaning. Identified subareas and localities are also identified on a master map (to be created), and individual sites are bulleted in the chapter on key resources. Of necessity, each section highlights but a sample of the diverse archaeological sites in each area. Note

that sites believed to be especially sensitive (i.e., to have particular religious or other cultural significance that is not appropriate for general knowledge) are not discussed here, nor are they listed in the table or plotted on the map.

Hopi Area (Including Hopi Mesas and Southeastern Kayenta)

The Little Colorado watershed includes the Hopi Mesas and the Black Mesa area of the Kayenta region. The Kayenta region is largely outside of the defined Little Colorado watershed, and includes such well-known archaeological areas as Monument Valley and Tsegi Canyon (Navajo National Monument). As discussed above, Black Mesa is notable for its Archaic and early Pueblo occupation. Valley View Ruin, for example, is a large Pueblo I hamlet located on the mesa rim.

Archaeologists generally consider the Hopi area to include the prominent Hopi Mesas, the Hopi Buttes to the southeast along Cottonwood Wash, and the Moenkopi area to the northwest. The area is perhaps best known for its Pueblo IV and historic occupation. The Hopi Mesas (from northwest to southeast: Third Mesa, Second Mesa, First Mesa, and Antelope Mesa) actually are southwesterly extensions of Black Mesa. A population boom on the mesas apparently occurred during the late 1200s, when at least 14 large settlements were established here. These were relatively large, with at least 100 rooms. The two largest villages, Oraibi and Awatovi, had 500 to 800 rooms, respectively. Many of the Pueblo IV villages were inhabited through the Spanish colonial period, and four remain occupied today.

Sinagua Area (Including Flagstaff Area and Anderson Mesa)

Numerous archaeological sites, many of which are within three National Monuments in the vicinity of Flagstaff, Arizona, are attributed to the Sinagua culture. Sunset Crater National Monument, which contains the namesake volcano that erupted dramatically for a relatively brief interval between A.D. 1050 and 1100, was home to Sinagua farmers. In the aftermath of its eruptions, the Sunset Crater area was no longer farmable, causing local populations to move to villages in nearby Walnut Canyon and Wupatki. Here, thinner layers of ash and cinders actually made agricultural lands more productive. Wupatki National Monument contains the remains of Wupatki, Wukoki, Citadel, Lomaki, and nearly 3,000 other sites ranging from Archaic times through the late 1200s. Wupatki Pueblo itself has produced several interesting items, including turquoise and shell jewelry, copper bells, and a buried parrot skeleton, indicating its occupants were connected to an extensive trading network. The monument also includes numerous petroglyphs. Walnut Canyon National Monument is just east of Flagstaff along Walnut Creek. Included in the monument are numerous well-known Sinagua cliff dwellings occupied between about A.D. 1150 and 1225. Also present are many pueblo-style masonry dwellings on the canyon rim. Because they are less visible, these sites have escaped much of the looting that devastated the cliff dwellings prior to the monument's establishment in 1915.

On the northeast edge of Flagstaff is Elden Pueblo, a 60-70 room Sinagua pueblo dating from about A.D. 1100 to 1250. The pueblo is notable not only because it appears to have been an

important regional trade center during its heyday, but also because it has been identified as a key ancestral Hopi village. As discussed later in this chapter, public archaeology and collaboration by many individuals and organizations have contributed to the excavation and interpretation of this site. Also on the outskirts of Flagstaff is the Sinagua petroglyph panel in Buffalo Park, which is accessible to the many visitors that use this area for outdoor recreation.

The Anderson Mesa area is southwest of the Little Colorado River, between modern-day Sedona on the west, Flagstaff on the northwest, Winslow on the east, and the Mogollon Rim to the south. With the exception of recent work by Wesley Bernardini and earlier excavations at Nuvakwewtaqu (Chavez Pass) by archaeologists from Arizona State University, this area remains somewhat understudied. Typically classified as Sinagua, Anderson Mesa actually is a transition zone between Anasazi groups to the north, Mogollon groups to the east, and Salado groups to the south. Several large villages were constructed and occupied in this area during the Pueblo III and Pueblo IV periods, including the extensive, multi-roomblock Nuvakwewtaqu as well as the loosely clustered Grapevine complex.

Both the Anderson Mesa and Homol'ovi areas (the latter discussed below under "Middle Little Colorado") are likely sources for immigrants to Hopi in late prehistory. Villages in these two regions figure prominently in Hopi migration traditions, with more than two dozen Hopi clans tracing their ancestral migrations from southern Arizona through Anderson Mesa and Homol'ovi on their routes north toward the Hopi Mesas. Both areas also have archaeological evidence for intense fourteenth century interaction with Hopi Mesa villages, based primarily on the abundance of distinctive Jeddito Yellow Ware pottery in site assemblages. Jeddito Yellow Ware was made only on the Hopi Mesas, so it must have been traded to Anderson Mesa and Homol'ovi sites. Both regions were largely vacated by the late 1300s, coinciding with population increases on the Hopi Mesas.

Middle Little Colorado Area and Rio Puerco of the West

The Middle Little Colorado area is centered on the confluence of the Little Colorado River and Cottonwood Wash, including the towns of Winslow and Holbrook, Arizona. Included in this area is the Rio Puerco of the West, which begins just east of Gallup and flows west to join the Little Colorado near Holbrook. North of Winslow is the Homol'ovi settlement cluster comprised of Homol'ovi I, II, III, IV, Cottonwood, and Chevelon. Researchers from the Arizona State Museum at the University of Arizona have spent decades excavating and interpreting these large, late Pueblo III and Pueblo IV villages that had strong ties to villages on the Hopi mesas. In fact, Homol'ovi is a Hopi word for "place of the low hills or mounds." Cotton production for exchange was likely a key economic activity at the Homol'ovi villages. Within Homol'ovi Ruins State Park, established in 1986, are the Homol'ovi sites I-IV, as well as more than 300 additional archaeological sites of various kinds. Homol'ovi I and Homol'ovi II are open to the public. Exhibits at the park visitor center interpret the area's significance, and a podcast audio tour is available on the Center for Desert Archaeology's website.

Petrified Forest National Park covers over 90,000 acres on the north and south sides of the Rio Puerco east of Holbrook. The northern park portion includes the Painted Desert, while the south park portion is known for its abundance of petrified wood. The park contains over 650 known archaeological sites, the oldest of which, Flattop Village, predates A.D. 500. This site, probably a summer residence for Basketmaker people, contains 25 slab-lined pithouses. Agate House, occupied from about A.D. 1100-1250, is one of many buildings in the park constructed entirely of petrified wood. It was reconstructed to its current configuration in the 1930s. The thirteenth- and fourteenth-century Puerco Ruin, a 125-room pueblo, is the largest site within the park. It has been partially excavated and stabilized. Associated with this village are a large group of petroglyphs that are argued to contain an archaeoastronomical feature that marks the summer solstice. Additional petroglyphs are present throughout the park, perhaps most notably at Newspaper Rock, a huge boulder containing hundreds of petroglyphs spanning the eleventh through fourteenth centuries A.D. Additional sites and petroglyphs, including the petroglyph site at the Hidden Cove Golf Course in Holbrook, can also be found in the surrounding area.

Several important historic archaeology sites also occur in the Middle Little Colorado subarea. The first, Brigham City, is a restored fort first built by Mormon pioneers in 1876. The fort's walls, which later were moved to the grounds of the La Posada Hotel in Winslow, enclosed settlers' homes. This small settlement only lasted five years due to repeated flooding of the river that destroyed crops. A second historic site important in Mormon history is the historic Sunset Cemetery within Homol'ovi State Park.

Silver Creek Area

The Silver Creek area, extending south of the Little Colorado River along Silver Creek, includes the modern-day towns of Snowflake/Taylor, Showlow, and Pinetop/Lakeside. The area is bounded on the south by the Mogollon Rim, where Silver Creek has its headwaters, flowing north to join the Little Colorado. Archaeological remains in this area are classified as Mogollon and, later, as Western Pueblo. Sites post-dating A.D. 1000 are best known and have been the focus of most archaeological investigations. During the tenth and eleventh centuries the Silver Creek received immigrants from a number of Ancestral Pueblo areas, who founded small villages. Population grew, and many villages dating to the eleventh and twelfth centuries have circular great kivas similar to earlier great kivas found at Chaco Canyon and elsewhere in the northern southwest. During the thirteenth and fourteenth centuries, local groups aggregated into large, plaza-oriented pueblos much like other portions of the northern Southwest.

The Silver Creek area figures prominently in the history of Southwest archaeology. In 1929, researchers from the National Geographic Society's Third Beam Expedition, including well-known archaeologist Emil Haury, recovered a tree-ring sample from the Showlow Ruin that made it possible to link the prehistoric and historic tree-ring chronologies established by A.E. Douglass. Thus, many sites in the Southwest could now be precisely dated to within a few decades. Haury also excavated at Showlow and

Pinedale Ruins. Archaeologists from the Field Museum of Chicago excavated several sites, including Carter Ranch and Broken K Pueblo, in the Hay Hollow Valley just east of Silver Creek and to the west of Silver Creek, the Chevelon Archaeological Research Project conducted survey and excavations.

Most recently, researchers from the University of Arizona have spent over a decade excavating and interpreting Silver Creek sites spanning the eleventh through fourteenth centuries, including three great kiva sites, a ca. 50-room late Pueblo III site, and the large, aggregated early Pueblo IV period Bailey Ruin.

Upper Little Colorado Area

The Upper Little Colorado area includes the upper portion of the Little Colorado River drainage and its tributaries, from the headwaters in the White Mountains south of Springerville, Arizona to the confluence with the Zuni River northwest of St. Johns, Arizona. As discussed above, Paleoindian artifacts found near St. Johns attest to the very long occupational history of this area. Basketmaker period pithouse settlements are found throughout the region, as are small masonry structures dating to the tenth and eleventh centuries. There are several Chaco-period great houses along the Upper Little Colorado, including Garcia Ranch northeast of St. Johns near the New Mexico border and Cox Ranch Pueblo near Fence Lake and Quemado, which researchers from Washington State University have recently investigated.

Several well-known Pueblo III and Pueblo IV period sites are along the Upper Little Colorado River proper between Springerville and St. Johns. Situated on the terraces of crumbling basalt cliff just outside Springerville, Casa Malpais incorporates both relatively early Mogollon and later Western Pueblo features. The Center for Desert Archaeology, the Salmon Ruins Museum, and the town of Springerville recently partnered in an emergency stabilization program for this unique basalt-masonry site of Casa Malpais. The site is accessed via guided tours from the Casa Malpais Visitor Center and Museum, where visitors can view exhibits about the site. Lyman Lake State Park near St. Johns contains hundreds of archaeological sites and petroglyphs, including Rattlesnake Point Pueblo and Baca Pueblo, which were investigated by Arizona State University in the 1990s.

Sherwood Ranch Pueblo (formerly known as the Raven Ruin) is north of Springerville. From the mid 1980's to mid 1990's, this site was excavated by a group known as the White Mountain Archaeological Research Center (WMARC). WMARC offered archaeological research vacations that allowed the public to participate in archaeological excavations. Unfortunately, the records from these excavations have not been published, and the location of excavated artifacts is presently unknown. In 2002, the site's owners terminated their lease agreements with WMARC and the site was donated to the Archaeological Conservancy, which sponsored a program of architectural documentation and mapping. In 2003, Sherwood Ranch Pueblo was fully documented and backfilled to ensure the stabilization and long term preservation of exposed archaeological features. The site was listed on the National Register of Historic Places in 2005.

Zuni/Cibola Area

The Zuni/Cibola area of east central Arizona and west central New Mexico includes the Zuni River drainage, all of the present-day Zuni Reservation, the El Morro Valley to the east of the reservation, and the Jaralosa Draw and Quemado areas south of the reservation. During the Chaco period, much of the Zuni region population lived in small pueblos of 10 to 20 rooms. Some room blocks were dispersed and others were loosely clustered in what appear to be communities, the best known of which is probably the Village of the Great Kivas. During the post-Chacoan period (A.D. 1150-1250), larger aggregated villages of 500-plus rooms appeared. These often had multiple room blocks focused around great houses and oversized, apparently unroofed, great kivas. One of these is the Los Gigantes community in the El Morro Valley, which was recently investigated by archaeologists from Arizona State University.

The large, apartment-like nucleated villages of the Pueblo IV period are perhaps the most archaeologically visible sites in the Zuni area. They include the pueblos of Atsinna and North Atsinna that are open to the public at El Morro National Monument. In the vicinity of the monument, to the west on the Zuni reservation, and to the south toward Quemado are many more nucleated pueblos that are less accessible. Many of these are on private or Zuni tribal land. Several have been investigated by archaeologists from institutions as diverse as Washington University in St. Louis, Wake Forest University, Columbia University/Barnard College, and Arizona State University. Beginning around A.D. 1400, the eastern and southernmost portions of the Zuni region were abandoned and the entire regional population became concentrated into nine villages along the Zuni river, many of which were occupied into the historic period. Modern-day Zuni pueblo is one such village.

DISTINCTIVENESS OF THEME

The archaeology theme, with its primary focus on Native American sites, is unique to heritage areas. Archaeology and living Native American cultures are major components of the Little Colorado area and provide a source of connection with the past for local and tourist alike. The Little Colorado area is home to vibrant Native American cultures with deep roots and continued connections to the area. The area also has a rich historical record reflected in numerous historic archaeology sites. The heritage area would protect valuable archaeological resources and ensure their continued relevance to today's diverse communities.

RELATED RESOURCES

A number of archaeological sites, parks and monuments, museums, private organizations, and events are open to the public. These are too numerous to discuss in detail and the following discussion highlights a small sample of what is available. The Little Colorado area is home to a total of six National Parks, National Monuments, and State Parks. In addition to state parks and monuments within the watershed are four significant areas—Canyon de Chelly National Monument, Chaco Canyon National Park, Grand Canyon National Park, and Navajo National Monument—immediately outside its boundaries.

The Museum of Northern Arizona in Flagstaff houses extensive collections and also interprets the archaeology and history of the northern southwest. The Museum's annual Indian and Spanish shows attract thousands of artists and visitors. Also in Flagstaff, current archaeological work at Elden Pueblo, led by Coconino National Forest archaeologist Peter Pilles, is a cooperative effort among volunteers from the Museum of Northern Arizona and the Arizona Archaeological Society, as well the Arizona Natural History Association, the Hopi Cultural Preservation Office, and the general public. This project is featured as an "Interactive Dig" by *Archaeology Magazine*.

Several privately owned organizations provide controlled access to archaeological sites. Among these is the Rock Art Ranch, located on an old cattle ranch with numerous petroglyphs in an isolated canyon.

Arizona's three state universities, Arizona State University, Northern Arizona University, and the University of Arizona, have long been involved in archaeological research, publication, and public outreach in the Little Colorado area. Notable projects include the U of A's investigations at Homol'ovi Pueblo and the Silver Creek area, as well as ASU's multiple projects in the Zuni region and El Morro Valley. The Little Colorado area has also attracted researchers from institutions as far away as Washington State University and Wake Forest University, to name but a few.

Finally, appreciation and protection of archaeological sites is achieved at the local level through a network of trained site stewards, avocational and professional groups, preservation and conservation organizations such as the Archaeological Conservancy, and local community members. Many tribal governments have also established cultural preservation offices that conduct and oversee archaeological investigations and historic preservation on tribal lands.

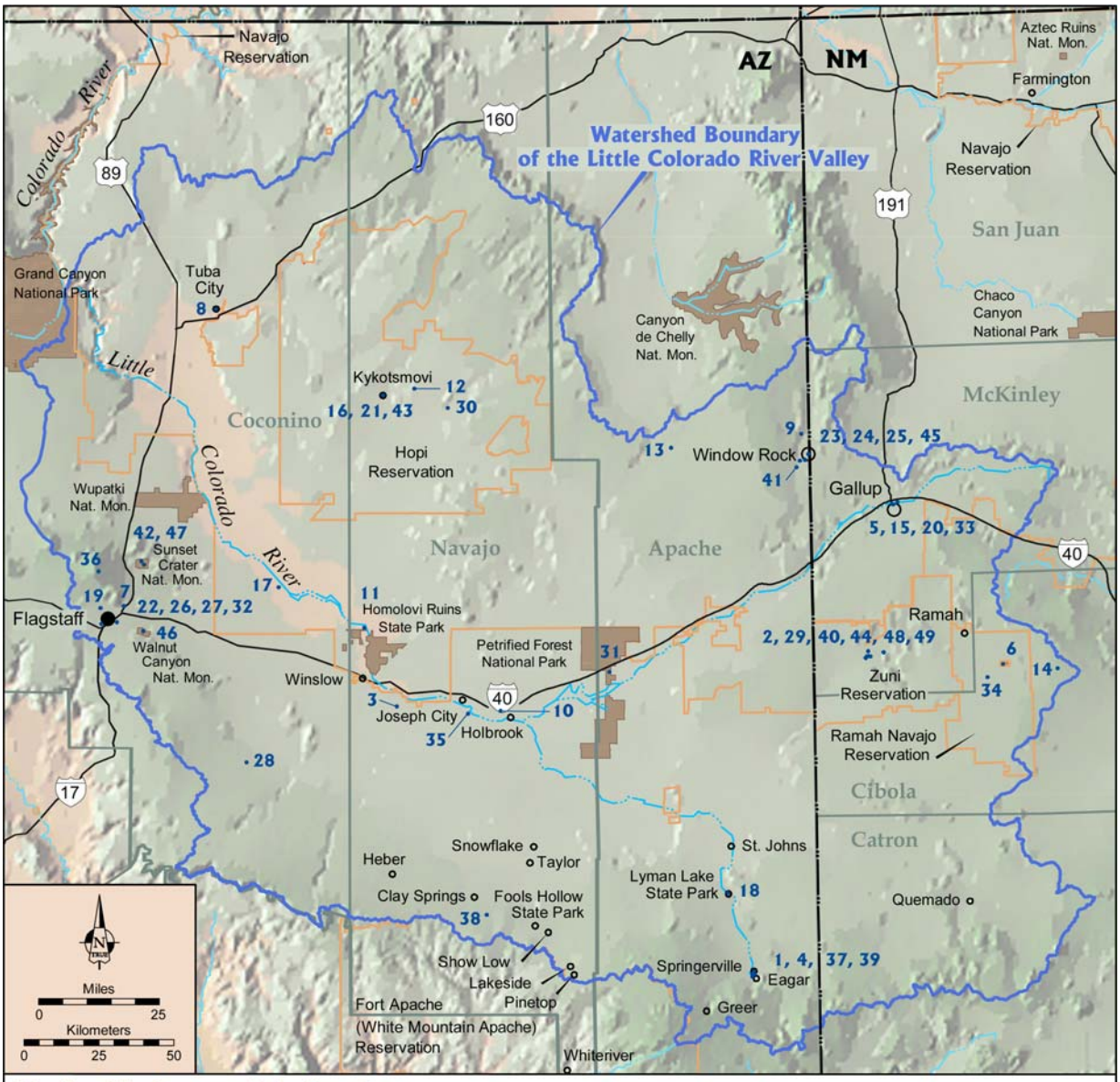
RELATED RESOURCES LIST (Native Nations and Archaeology)

- **26 Bar Ranch, Eagar:** Now owned by the Hopi tribe, the ranch previously belonged to John Wayne. Petroglyphs and other archaeological sites are on the property. The ranch also participates in Valle Redondo Days over Memorial Day Weekend, a festival celebrating John Wayne and the local area in general. The ranch hosts Hopi dance performances open to the public.

- **Archaeological Conservancy, Albuquerque:** The Archaeological Conservancy works with willing landowners to study and preserve archaeological sites on their property. The Conservancy owns nine sites in the Little Colorado River watershed.

- **Arizona Archaeological Society (AAS):** A statewide organization with local chapters, including three in the Little Colorado River watershed, the Society promotes the understanding, respect, and protection of archaeological sites for professional and avocational archaeologists alike.

- **Arizona and New Mexico Site Steward Programs:** Volunteers are trained to visit sites and evaluate and report any damage, whether caused by vandalism or natural forces. Regular monitoring helps reduce the severity of impacts and aids in the long-term preservation of the site.



Native Nations and Archaeology

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3 Brigham City
4 Casa Malpais site and museum
5 Code Talker Room
6 El Morro National Monument
7 Elden Pueblo
8 Explore Navajo Interactive Museum
9 Fort Defiance
10 Hidden Cove petroglyphs
11 Homol'ovi Ruins State Park
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13 Hubbell Trading Post National Historic Site
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40 St. Anthony's Schhol Native American Day dances
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44 Zuni Tribal Cultural Preservation Office
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46 Walnut Canyon National Monument
47 Wupatki National Monument
48 Zuni Area Pueblos
49 Zuni McKinley County Fair

- **A:shiwi A:wan Museum and Heritage Center, Zuni:** The museum features a beautiful mural depicting the Zuni story of emergence into the Fourth World as well as other displays of art, history, culture, and the difficulty the tribe has experienced in being the subject of intense anthropological study.

- **Black Mesa Trust, Kykotsmovi**

- **Brigham City, Winslow:** The site of an early Mormon settlement from the 1870s, it has been the subject of recent archaeological studies and plans are in place for its restoration.

- **Casa Malpais site and museum, Springerville:** Casa Malpais is an ancestral Puebloan site built at the edge of a lava flow a few hundred yards from the Little Colorado River. It is important to both the Hopi and Zuni Tribes and is also well-known and cared for by local residents.

- **Cottonwood Creek and Chevelon ruins:** Part of the ancestral Hopi Homol'ovi settlement cluster along the Middle Little Colorado near Winslow, Cottonwood Creek and Chevelon ruins are on opposite sides of the river. Chevelon is the larger of the two, with up to 500 rooms and several plazas. Cottonwood Creek has about 120 rooms. Both pueblos were occupied from the late 13th to the late 14th century A.D.

- **Cox Ranch Pueblo:** Cox Ranch Pueblo near Fence Lake is one of the southernmost settlements linked to the Chacoan regional system. The complex, which has recently been the subject of excavations by Washington State University personnel, has a 50-room Chaco style great house surrounded by 18 smaller residential room blocks.

- **El Morro National Monument:** El Morro contains many ancient petroglyphs as well as pueblo ruins atop its sandstone bluff.

- **Elden Pueblo, Flagstaff:** This pueblo was inhabited from about A.D. 1070 to 1275. Since 1978, the Arizona Natural History Association and professional archaeologists have led summer sessions in which school-aged children and members of the public can participate in excavations and learn the science of archaeology and about ancient cultures in a hands-on way.

- **Explore Navajo Interactive Museum, Tuba City:** This new, state-of-the-art museum allows visitors to explore land, language, history, culture, and ceremonies of the Navajo people. The design of the museum reflects Navajo worldview by having visitors travel through the exhibits from east to south to west to north (mimicking the path of the sun) and by also emphasizing the number "four," which is a foundational concept (four seasons, four directions, etc.) in Navajo thought.

- **Fort Defiance, Fort Defiance Chapter:** This was the first military outpost (1851) in Arizona Territory the U.S. Army established in an attempt to control Navajos. Kit Carson drove people from their homes to here, and then continued driving them on to Ft. Sumner where they spent four years incarcerated. This journey is known as The Long Walk. Ft. Defiance became the first agency when the Navajo Reservation was established in 1868 and was the site of distribution of over 13,000 sheep and 1,000 goats to Navajo families as they resettled in their lands after the ordeal at Ft. Sumner. Those sheep and goats form a large

basis of the present herds people keep today.

- **Hay Hollow Valley:** The Hay Hollow Valley, just east of Snowflake, contains the remains of Broken K and Carter Ranch pueblos. Archaeologists from Chicago's Field Museum excavated at Broken K Pueblo in the 1960s. This roughly 100-room Mogollon residence dates from about A.D. 1150 to 1280.

- **Homol'ovi Ruins State Park:** Four major pueblos and a section of the Little Colorado River comprise this State Park. A recent Memorandum of Understanding between Arizona State Parks and the Hopi Tribe has resulted in significant Hopi influence in Park operations and programming. The annual event, Suvoyuki Day, features traditional dances, foods, specially-guided archaeological tours, and art demonstrations.

- **Hooper Ranch and Danson pueblos:** Located along the Upper Little Colorado River north of Casa Malpais, these ancient Pueblo sites were occupied from the late 13th through the late 14th centuries. Danson is atop a steep knoll and has about 25 rooms. Hooper Ranch is somewhat larger, at 60 rooms, and is only a few hundred meters south of Danson.

- **Hopi Cultural Center and Restaurant, Second Mesa:** The Cultural Center and Restaurant are a main stop for visitors to Hopi. The restaurant offers traditional Hopi dishes and some of the 12 villages operate gift shops in the adjoining complex that feature a variety of Hopi and other tribal arts and crafts.

- **Hubbell Trading Post National Historic Site, Ganado:** John Lorenzo Hubbell began trading at this site in 1878. He and his descendents operated the post until it was sold to the National Park Service in 1967. The Hubbell Trading Post is still an active trading post, hosts two auctions of Native American arts every year, and is in the process of restoring gardens and livestock herds that would have been present during J.L. Hubbell's time.

- **Inscription Rock Trading Post, Rte. 53 near Ramah:** A modern-day "trading post," Inscription Rock features the work of artists from nearby Zuni and Navajo as well as from around the world.

- **Inter-Tribal Indian Ceremonial, Gallup:** The Ceremonial, held annually since 1922, is the largest Native-related event in North America. It started as a tribute to Native Americans in the Gallup vicinity but now attracts tribes from across the continent. It features four days of juried art shows, rodeos, night dances, parades, Native foods, queen contests, fashion shows, footraces, and more.

- **KUYI Hopi Radio:** KUYI, Hopi owned and operated, began broadcasting in 2000 and currently reaches Flagstaff, Winslow, Tuba City, and the I-40 corridor in addition to the Hopi Reservation. Its programming features a mix of traditional Hopi music, contemporary Native music from Hopi and other tribes, as well as local and regional news and some National Public Radio programming. Interestingly, "kuyi" in the Hopi language means water, and water is considered the source of all life.

- **Leupp Chapter:** Leupp contains several interesting historic and

modern-day places including a trading post, remnants of a WWII Japanese Internment Camp, Indian School, and the North Leupp Family Farms. The Farms are an effort of approximately 40 families to restore native crops and farming traditions as a means of transmitted Navajo culture to youth and to encourage a healthier diet and lifestyle.

- **Lyman Lake State Park:** The lake itself was created by a Mormon dam on the Little Colorado River and served early Mormon settlements in the vicinity. The Mormons were not the first to recognize the quality of the area, however. Native Americans lived there for many centuries before, building several pueblos and carving hundreds of petroglyphs into boulders surrounding what was then the river banks.

- **Museum of Northern Arizona (MNA), Flagstaff:** Founded in 1928, the museum has a long history of promoting Native cultures and arts. Its three annual Native arts shows (one each for Hopi, Navajo, and Zuni) draw visitors from around the country and around the world. The oldest, the Hopi Show, is celebrating its 75th year in 2008. The permanent collection of MNA contains many Native art pieces. The museum also sponsors periodic cultural trips to the reservations where participants can learn from Native guides.

- **Native American Appreciation Day, Gallup:** Started by trader Ellis Tanner in recognition of the immense impact Native Americans have on the Gallup economy, the event is now sponsored by the City of Gallup and a number of local organizations and businesses in addition to Tanner's. The event draws 10,000 people on average (Gallup's total population is approximately 20,000) and features footraces, song and dance competitions, and a free barbeque.

- **Natwani Coalition *(Natwani Tu'sawyaqam)*, Kykotsmovi:** An affiliation of organizations and institutions dedicated to preserving and restoring the local food system on Hopi.

- **Navajo Nation Archaeology Department, Flagstaff and Window Rock:** The Navajo Nation Archaeology Department serves the Navajo Nation in a number of ways. It provides survey, archaeological research services, and cultural consultation for public projects, such as road construction, on the reservation, provides the same services for families working with homesite leases, and also provides hands-on experience for young Navajo archaeologists in training. The Department conducts its work in a manner that is scientifically respected but also consistent with cultural values.

- **Navajo Nation Fair, Window Rock:** The Navajo Nation Fair began in 1938 for the encouragement of livestock improvements and management through exhibits and demonstrations. Seventy years later, the mission of the Fair is "to preserve and promote pride in the Navajo heritage and culture for the benefit of the Navajo Nation." It is a world-renowned event that showcases Navajo agriculture, fine arts and crafts, and much more. It is the largest American Indian fair and rodeo.

- **Navajo Nation Museum and Navajo Nation Zoo and Botanical Park, Window Rock:** The Navajo Nation is the only United States tribe to own and operate its own zoo. Most of the

animals of the zoo are native to the Navajo Reservation and the zoo reflects the importance these animals have in the culture. Adjacent to the Zoo and Botanical Park is the Navajo Nation Museum, which has exhibits, a book and gift shop, and programs about the Navajo people.

- **Northern Arizona University Anthropology Department, Flagstaff:** The Department is recognized for its training of highly skilled and capable archaeologists as well as for its cooperative relationships with Native Americans, particularly the Hopi and Navajo Tribes.

- **Northern Arizona University Student Powwow:** Sponsored by the Native American United student organization, this powwow features arts and crafts as well as performances.

- **Nuvakwewtaqa (Chavez Pass) Pueblo, Anderson Mesa:** Located on Anderson Mesa southwest of Winslow, Nuvakwewtaqa is a large site complex with three main pueblos and several smaller room blocks and other features. This Sinagua residence was occupied from the early 13th to the late 14th centuries A.D., and is considered ancestral to the Hopi.

- **Our Lady of Guadalupe Mission, Zuni:** Inside this 17th century church are two contemporary murals by Zuni artist Alex Seowtewa featuring the summer and winter pantheon of Zuni kachinas. It provides an interesting and thought-provoking mix of the religion of two cultures.

- **Paatuwaqatsi Run, Polacca:** Translated from the Hopi, Paatuwaqatsi Run means "Water Is Life Run" in English. Organized in 2003, the event now attracts over 200 participants to run an approximately 30-mile course up and down the Hopi Mesas. In the Hopi perspective, trail running renews the earth by keeping the pathways of water open and the villages alive. The focus of the run is to build community spirit and reinforce cultural values of water and running. The run is open to Hopis and non-Hopis alike.

- **Petrified Forest National Park:** The part contains significant pueblo, petroglyph, and other ancient sites that indicate more than 10,000 years of human history in addition to its impressive geologic and paleontologic resources.

- **Picture Canyon, Flagstaff:** This tucked-away site on the east side of Flagstaff has hundreds of petroglyphs on the boulders that line the creek bed. Coconino County Supervisors and local citizens are exploring ways to officially protect the site.

- **Plateau Sciences Society, Gallup:** This organization sponsors trips, lectures, and additional programs that encourage a greater understanding of past and present Native cultures and of the Colorado Plateau as a whole.

- **Ramah Navajo Weavers Associaton, Pine Hill:** Weavers belonging to the Association use handspun and naturally dyed wool from locally raised Churro sheep. The workshop, located in a hogan, is open to visitors seasonally.

- **Rock Art Ranch, Winslow:** Rock Art Ranch is a privately owned working cattle ranch that includes a portion of Chevelon Canyon. The Canyon

contains significant petroglyphs and the site is listed on the National Register of Historic Places.

- **Rudd Creek Pueblo:** Located within the Sipe White Mountain Wildlife Area near Springerville and Eager, Rudd Creek Pueblo is a 50-room ancestral Pueblo village that was occupied during the early to mid-1200s. The visitor center offers an exhibit based, in part, on Arizona State University's excavations at the site, which can be seen on the Rudd Creek Trail. Petroglyphs are common along rock outcrops in the area.

- **San Francisco Peaks:** These mountains feature prominently in the religious beliefs of 13 tribes, including the Navajo, Hopi, Zuni, and White Mountain Apache. Pilgrimages are still made to various shrines on the mountains themselves and culturally important plants are collected for ceremonies.

- **Sherwood Ranch Pueblo, Springerville:** This ancestral Puebloan site, numbering at least 800 rooms, is one of many along the Little Colorado River near its headwaters in the White Mountains.

- **Silver Creek area sites:** The Silver Creek drainage, with its headwaters on the Mogollon Rim, contains several important pueblos that have been investigated beginning in the early 1900s by such well-known archaeologists as Leslie Spier, Jessie Walter Fewkes, Emil Haury, and Barbara Mills. Many pueblos (such as Fourmile, Shumway, and Pinedale ruins) have been heavily impacted by construction or pothunting. Multiple individuals and institutions are presently involved in efforts to preserve remaining intact portions of these sites. Other pueblos, such as Bailey Ruin, are well-preserved. These pueblos date largely to the late 1200s and 1300s.

- **St. Michael's Museum and Catholic Church and School, St. Michael's Chapter:** Mother Katherine Drexel, founder of the Sisters of the Blessed Sacrament Order whose specific focus was to serve American Indians, worked with Franciscan priests to establish a church and school in this location. The school was completed in 1902 and remains the only Catholic School in the Navajo Nation. The museum is an excellent source for insight into early 20th century Navajo life and culture.

- **Sunset Crater Volcano National Monument** :People lived in the vicinity for several hundred years, at a minimum, before an eruption caused the creation of Sunset Crater sometime between 1050 and 1100. Pithouses have been found burned and filled with cinders, but thus far there is no evidence of people dying from the eruption. One of the more interesting archaeological artifacts discovered in the region are the occasional rocks of lava that cooled against a corncob which left a distinctive impression on one side. People left the immediate area after the eruption and likely settled nearby at what are now Walnut Canyon and Wupatki National Monuments.

- **Trading Posts:** At one time, more than 50 trading posts operated in Native communities throughout the Little Colorado River watershed. Their economic and social impact on the lives of Native families has left a lasting legacy. A number of trading posts, often operated by third and fourth generation trading families, remain today while others, such as the Bidahochee Trading Post in

Indian Wells Chapter, are currently being restored and converted into modern cultural and arts education centers.

- **Tribal Cultural Preservation Offices (Navajo, Hopi, and Zuni):** The tribal cultural preservation offices consult on construction and other projects that may affect resources important to their respective tribes, on or off the reservations, and also serve as a resource for all types of cultural matters, research, education, and promotion.

- **Walnut Canyon National Monument:** Evidence of people in the canyon, at least on a temporary basis, dates back several thousand years. Permanent inhabitation dates from about 600 to 1400. The people, usually considered to be Sinagua (an ancestral Pueblo culture) had small-scale farms of corn, beans, and squash.

- **Wupatki National Monument:** The Monument consists of several pueblo clusters with Wupatki, Wukoki, and Lomaki being three of the most prominent. The site was inhabited less than 800 years ago and is considered by the Hopi to be one of the last places several of the clans lived before their migrations brought them to the Hopi Mesas. The eruption of Sunset Crater Volcano before settlement at Wupatki began probably made the land more hospitable for farming than it appears today due to the ability of thin layers of ash to retain moisture in soil. Wupatki must have been a wealthy and successful community for many trade goods from great distances have been found. These include shell jewelry and copper bells from Mexico as well as more than 40 macaws from Mesoamerica. Wupatki also has what is generally considered to be the northern-most ball court, a form of architecture typically associated with Mesoamerican cultures.

- **Zuni McKinley County Fair, Zuni:** A county fair with a Native American flare, this event, held at the Zuni Fair Grounds, features several traditional Native dance groups, Jr. Miss and Miss Zuni Talent Night, and rodeos.

- **Zuni Area Pueblos:** The ancestral Zuni pueblos of Village of the Great Kivas and Hawikku are but two of many significant archaeological sites near present-day Zuni Pueblo. Chaco-era Village of the Great Kivas is well known for its impressive petroglyphs and pictographs. Hawikku is the larges of the historic "Cities of Cibola." It was visited by Coronado's expedition in A.D. 1540. Both sites are listed on the State Register of Cultural Properties and the National Register of Historic Places.

PRIMARY REFERENCES

Adams, E. Charles, and Andrew I. Duff (editors)
2004 *The Protohistoric Pueblo World, A.D. 1275-1600*. University of Arizona Press, Tucson.

Adler, Michael A. (editor)
1996 *The Prehistoric Pueblo World, A.D. 1150-1350*. University of Arizona Press, Tucson.

Bernardini, Wesley
2005 *Hopi Oral Tradition the Archaeology of Identity*. University of Arizona Press, Tucson.

Cordell, Linda S.
1994 *Ancient Pueblo Peoples*. St. Remy Press, Montreal, and Smithsonian Institution, Washington, D.C.

1997 *Archaeology of the Southwest*. 2nd ed. Academic Press, San Diego.

Duff, Andrew I. L.
2002 *Western Pueblo Identities: Regional Interaction, Migration, and Transformation*. University of Arizona Press, Tucson.

Huckell, Bruce B.
1996 The Southwestern Archaic: Scale and Perception of Preceramic Hunter-Gatherers. In *Interpreting Southwestern Diversity: Underlying Principles and Overarching Patterns*, edited by P. R. Fish and J. J. Reid, pp. 7-16. Anthropological Research Papers No. 48. Arizona State University, Tempe.

Mills, Barbara J., Sarah A. Herr, and Scott Van Keuren (editors)
1999 *Living on the Edge of the Rim: Excavations and Analysis of the Silver Creek Archaeological Research Project 1993-1998*. Archaeological Series No. 192(1). Arizona State Museum, University of Arizona, Tucson.

Noble, David Grant
1991 *Ancient Ruins of the Southwest: An Archaeological Guide*. Northland Publishing, Flagstaff, Arizona.

Theme 6
Expressions of Art and Life

SUMMARY OF THEME

The American Southwest has long been noted for its association with Native American arts and crafts. For literally thousands of years, this region has been home to cultures and tribal groups who developed complex and sophisticated societies that incorporated a broad range of religious activities, governmental systems, transportation and communication networks, agricultural practices, architecture, science, astronomy, and the technology required to manufacture, utilize, and trade a number of craft items that were necessary adjuncts to daily life routines. For over 2,000 years, the vast Colorado Plateau has been home to the Basketmaker/Anasazi/Pueblo culture. In late prehistoric times, this culture became one of the most advanced societies in all of North America, in spite of the difficult terrain and unpredictable weather patterns.

The quality and originality of the art produced reflects the sophistication of the culture in general. Navajo arts and crafts production is as impressive as that of Pueblo tribes. Both Navajo and Pueblo cultures are known for pottery, jewelry, weaving, and basket making as well as other forms. The Native Southwest artistic style is recognized the world over. The style embodies key elements of the cultures including belief systems, the surrounding environment, and various cultural practices. Native arts serve to connect and reconnect the artist to the spiritual and physical landscape, as well as primary sources of income. In the non-Native world, Native Southwest arts are highly prized by museums, private collectors, and individuals.

From the late 19th to the late 20th century, trading posts were the primary locations where Native artists took their pieces and where non-Natives could purchase them. Trading posts also served a crucial role in the household economies of most Native families and were a centerpiece of any community. Traders served a key role in the community, keeping necessary supplies available during economically lean times and often serving as liaisons between the Native community and outsiders.

Several Little Colorado communities are graced with impressive murals that honor the multi-layered history of their respective locations. Painted by Native and non-Native artists alike, their subjects cover the full range of history, geography, and cultural diversity. The murals, some more than 50 years old and some completed just last year, are vibrant and engaging testimonies to the richness of the region.

DESCRIPTION OF THEME

Pueblo Arts

The ancient culture, variously known as the Anasazi, Hisatsinom, or Ancestral Pueblo, once ranged over the entire southern portion of the Colorado Plateau. The two most western branches, the Zuni and the Hopi, occupied the drainages of the Little Colorado River. One of their most significant crafts centered around the tradition of ceramics. Pueblo pottery is

perhaps the most distinctive, versatile, and long-lived craft found among any North American Indian group.

Until the end of the 19th century, pottery was primarily a household craft. Since the beginning of the ceramic tradition in the 1st century, millions of pots have been created for cooking, food storage, holding water, serving foods, and for ritual uses. Eventually the pots would be given away, traded, or worn out, broken, and discarded.

By the middle of the 19th century, with metal pots and pans, and later plastic and glass containers, readily available at the trading posts, pottery making quickly declined. Modern pottery is only occasionally utilitarian and, when made for use within the Pueblos, it is mainly for ceremonial use. Irrespective of its historical value, almost all contemporary Pueblo pottery is valued purely on the basis of aesthetics and the reputation of the potter. It is produced by one culture largely for the appreciation of another culture that buys and collects it.

Generally speaking, Hopi pottery of the 19th century was coarsely made, with crude designs, and poorly fired. A major change occurred in 1897 when J. Walter Fewkes, the distinguished anthropologist of the Bureau of American Ethnology, came to the Hopi villages and began to excavate the long-abandoned ruin of Sikyatki. Here he found quantities of beautiful and well-executed pottery dating back some 400 years. Among his Native workmen was a man named Laysoo, whose wife, a Hopi-Tewa, became extremely interested in the old pieces and determined to revive the old styles.

This woman, known to all students and collectors of Hopi pottery as Nampeyo, was successful in revitalizing pottery making among Hopi artisans. Her children carried on the tradition, and now many of her grandchildren are continuing the craft, still using local supplies of clay and temper, manufacturing the vessel by the coil technique, painting Sikyatki style designs, and firing the pots in outdoor kilns utilizing sheep dung and locally mined bituminous coal. Today, pottery is made in all the villages throughout the three mesas on the Hopi reservation, but painted, or decorated vessels are only produced on First Mesa. Pottery from Second and Third Mesas are always plainwares with a red slip.

The Pueblo of Zuni witnessed a similar decline of pottery production throughout the 19th and early 20th centuries. After World War II, almost every family in the Pueblo was engaged in some facet of silversmithing, and only three or four families—and mostly the women of the families—continued to produce traditional pottery. In the mid-1960's, Zuni High School initiated an art program that included pottery making. A granddaughter of Nampeyo, Daisy Hooee, who had married a Zuni, was hired to teach the course. She made a point of teaching only the Zuni style pottery and even took her students to various museums in the Southwest to view and study their Zuni pottery collections. By 1975, when Jennie Laate took over the program, 78 students had gone through the classes. Currently, these former students, both men and women, and their children form the nucleus of the community's pottery makers. Although most adhere to the traditional methods, several now tend to utilize commercial clays, and fire the vessels in an electric kiln.

In the 21st century, pottery is a vital craft for both Hopi and Zuni.

Production is not limited just to women, as Lawrence Namoki (Hopi) and Randy Nahohai (Zuni) can attest. In a number of cases, the younger craftspeople are not just producing the traditional bowl and jar forms. Their sculptural pieces are adding a new, fresh dimension to both contemporary Hopi and Zuni ceramics.

Another Pueblo craft that is rooted in antiquity is textile production. The technique of utilizing plant fibers by interlacing two elements, the warp (foundation) and weft (binder), resulting in a basket, plaque, or even sandals, can be traced back some 6,000 years to the Folsom culture. In fact, the earliest phases of the Anasazi/Pueblo culture has been referred to as "Basketmaker" because of the tremendous amount of baskets and containers produced by these people 1,500 to 2,000 years ago.

The people of the past were able to utilize a wide variety of plant and animal fibers, including yucca, agave, milkweed, hemp, sotol, bear grass, human hair, dog hair, and strips of rabbit fur which were incorporated into yarns made on a yucca-fiber core. The more rigid fibers were used in making baskets and sandals, while the more flexible strands, spun together to make a long yarn, were favored for weaving blankets or sashes.

A significant change occurred about 500 A.D. when cotton was introduced into the region. A species of a long-staple cotton, *Gossypium hirsutum,* which needed almost 200 days to maturity, was grown in large amounts by the Hohokam in the lower Salt and Gila river drainages. For several centuries, harvested raw cotton was traded to the northern Mogollon and Anasazi/Pueblo peoples for their weaving needs.

Eventually, the peoples of the Colorado Plateau developed a sturdy, drought-resistant species of cotton that required only 85 frost-free days for maturity. Known as *Gossypium hopii*, it soon became a fiber of choice among the northern villages. By the 13th century, the ancestors of the Hopi, Zuni, and Acoma were growing and harvesting great quantities of this cotton. Tradition indicates that while women assisted in de-seeding the bolls and spinning the fibers into yarn, it was the men of the village who did the actual weaving. The first Spaniards who came into the area were very impressed with both the quality and quantity of Pueblo blankets. Antonio de Espejo, who visited the Hopi village of Awatobi in 1582 recorded, "Hardly had we pitched camp when about 1000 Indians came laden with maize, ears of green corn, pinole (corn meal), tamales, and firewood, and they offered it all together with 600 widths of blankets, small and large, white and painted (colored) so that it was a pleasant sight to behold."

In late historic times, it seems that the Zuni stopped growing cotton and depended entirely on the Hopi for this raw material. As Spanish-introduced sheep and goats made wool and mohair readily available, the use of cotton yarn was reduced to the manufacture of traditional ritual garments. The last recorded harvest of cotton on the Hopi reservation occurred in 1942. After World War II, commercially produced cotton yarns became available, and today the few Hopi men who still produce woven textiles mostly utilize commercial cotton yarns colored with commercial dyes. Most of their products are shoulder blankets, kilts, and sashes worn in ceremonies and also traded to the Zuni, Acoma, and Laguna Pueblos for the same purposes.

Besides the crafts discussed above, the Hopi are also well known for their carvings using the root of a cottonwood tree. Begun hundreds of years ago as simple renditions of their holy messengers *(*kachinas*)* they were intended as teaching tools for the children. By the middle of the last century, with the availability of modern carving tools, files, and knives, these carvings became more life-like and the masks and body paints of the figurines more detailed. These uniquely crafted carvings soon caught the attention of both visitors and collectors. Today, finely carved kachina figurines are recognized as one of the most artistic and sophisticated art forms produced by any Native American group.

Navajo Arts

The various Apache tribes, including the Navajos, are descendants of an Athabaskan migration that arrived, and began to settle in the Southwest during the early years of the 15th century. By the time the Spaniards arrived, a northern branch of these Athabaskan-Apaches had converted from the traditional hunting-gathering society to one heavily involved in agriculture. Their Tewa Pueblo neighbors referred to them as "Nabaju," or People of the Great Planted Fields.

By the end of the 18th century, Navajos again re-structured their economy and lifeways to compensate for the large flocks of sheep and goats that they had acquired from the Spanish. Consequently, they began a shift to the south and west of their original homeland in a constant search for new pastures. It was during these times that the Navajo women, using wool from their flocks, began to weave garments and blankets, first for their own use and then using the surplus for trade. Navajo oral tradition states the knowledge of weaving was a gift taught by Spider Woman, one of the Holy People. Spider Woman's husband, Spider Man, built the loom for her, using elements of the earth and sky, lightning rods, and sun rays for its construction. This symbolism shows the great connection and reverence for the natural world in Navajo weavings. Weaving is as much a spiritual practice as it is a task necessary for the production of needed items.

Nearly all Navajos were forced from their homeland to live at Bosque Redondo in eastern New Mexico from 1864 to 1868. The Treaty of Peace signed on June 1, 1868 established the first part of the current Navajo Reservation and during the last three decades of the 1800s, the Navajo population and economy grew, as did their land holdings. By 1890, Navajos were selling over two million pounds of surplus wool to the various trading posts, who in turn shipped the wool to eastern markets. But it was what the Navajos did with the wool and mohair they kept that soon created a national market.

Up until this time, and even during the forced exile at Bosque Redondo, Navajo women took the wool they sheared from their sheep, washed, carded, spun, and dyed it, and wove blankets and women's dresses incorporating plain stripe motifs. Although well woven, the designs were always simple, the colors limited, and the sizes fairly standard. In response to suggestions from the various traders, Navajo weavers soon began to enlarge their looms, tighten up the warp, experiment with both commercial and natural dyes, produce a variety of sizes, and adapt new designs, including borders.

Since weaving was a year-round activity, the sale and trade of textiles was a constant source of income for Navajo families and provided a consistent flow of product to the trading posts. A concerted effort by several traders, including Lorenzo Hubbell, Sam Day, Cozy McSparron, J. B. Moore, and Mike Kirk, soon produced a national market for these textiles, which were promoted as rugs rather than blankets. Literally tons of Navajo rugs were shipped off the reservation to rail centers in Gallup, Winslow, and Flagstaff and on to eastern and California markets. As time went on, the personal preferences of the traders, especially regarding designs and color combinations, became strong influences on the local weavers and soon resulted in the so-called area or regional rugs. Within the Little Colorado region, some of the most widely recognized regional rugs are Ganado Red, Wide Ruins-Pine Springs, Burntwater, Storm-pattern, Pictorial, and Gallup throw. More recently, trader Bruce Burnham in Sanders has encouraged weavers in the Nahata Dziil Chapter (or New Lands) area to recreate the old traditional Germantown designs—Germantown, Pennsylvania being a source of some of the early commercial yarns used on the Navajo Reservation.

Currently, Navajo weaving is still a vibrant craft and is both a source of pride as well as income for many families. One of the major changes in modern times has been the wide availability of commercially processed wool yarns, making the time-consuming steps of shearing, washing, carding, spinning and dyeing much less common.

One of the few positive aspects of the years spent at Bosque Redondo may have been the training some of the men received in blacksmithing and metalworking. Once they returned home, several continued practicing what they learned and began to work in silver rather than copper. One Navajo silversmith, Atsidi Chon (Ugly Smith), after establishing himself as a well-known craftsman, moved to Zuni Pueblo in the mid-1870s. In exchange for room and meals, he made jewelry to sell and also taught several young men the basic techniques of cast and stamped items. It has been reported that he was the first silversmith, in 1880, to set a piece of turquoise on a ring, and this wonderful combination of silver and turquoise has been a hallmark of Southwestern Indian jewelry ever since. A decade later, one of Atsidi Chon's sons repeated his father's tactics and moved in with a Hopi family on Second Mesa. Again, in exchange for room and meals, he created custom-ordered jewelry to sell to the Hopis and also instructed several men in the art of silversmithing. Generally speaking, for awhile, Navajo, Zuni and Hopi jewelry styles were indistinguishable from each other.

The Fred Harvey Company took note of the possibilities of selling Navajo jewelry to non-Indians riding the railroad or staying at any one of their guest lodges. The idea proved to be an immediate success, and soon traders in Gallup, Winslow, and Flagstaff were responding by ordering large quantities of lighter-weight jewelry from the local craftspeople and reselling the pieces to the Fred Harvey Company. By the mid-1920s, this commercialization had produced an enormous awareness and demand for Native jewelry, but also had cheapened the product. The jewelry typically consisted of bracelets, rings, pins, bolo ties, earrings and necklaces of light-weight silver stamped with so-called Indian designs, and set with a few small turquoises.

Both the Depression and World War II played havoc with the production and sale of Indian jewelry, although by the early 1950s, the situation had turned around. Returning Navajo veterans, finding jobs scarce, took up silversmithing as a home-based industry. A number of Hopi veterans, with financial support through the G.I. Bill, formed the Hopi Silversmiths Guild and concentrated on producing a distinctive style of overlay jewelry. Zuni silversmiths, with newly developed precision tools, emphasized cluster work, petit-point and inlay using a variety of semi-precious stones.

This renewal of jewelry making was coupled with a post-war economic boom. After years of gas rationing, Americans were on the move like never before. Traffic on old Route 66 was almost bumper to bumper, and these people were in a mood to stop at a roadside booth, or a store downtown, and buy—pottery, rugs, paintings, and jewelry.

Jewelry production is still a good source of employment and income among the Zuni, Hopi, and Navajo to this day. Changes and improvements in equipment and tools have made it easier to produce fine, and very expensive, items of jewelry. However, the indiscriminate use of treated turquoise, other stones of poor quality, and the flooding of the market with look-alike pieces that are not produced by Native Americans in more recent times have negatively impacted the buying public's trust and interest in acquiring and wearing Native American jewelry. Much effort on the part of individual artists, artists' guilds, tribal agencies, and other organizations has been put into public education campaigns to teach ways in which to discern authentic pieces from fakes.

Trading Posts

Both historically and in the present-day, large amounts of Native arts and crafts can be found in the region's various trading posts. The history of Indian trading practices goes back to the itinerant Spanish-Mexican trader with his pack train who would wander from pueblo to pueblo, or visit *rancherias*, clusters of Navajo hogans, scattered throughout the mountainous headwaters of the San Juan River. A few Mexican settlements such as Cubero and Cebolleta also served as trading centers, as did the larger pueblos at Jemez, Acoma, and Zuni. During the early years of the American period, second generation Santa Fe or Taos traders began edging closer to the Little Colorado region. Romulo Martinez moved back and forth along the eastern escarpment of the Chuska Mountains. Juan Anaya, who in his youth had been captured and raised by the Navajos and spoke their language fluently, began a trading post in the 1850s near "Pass Washington" (now Narbona Pass) on what is now New Mexico Route 134.

Most trading posts in the Little Colorado region, however, developed after 1868 when the Navajo were transferred from Bosque Redondo to their own reservation. It was the military that stripped Navajos of their self-sufficient household economics, but it was the trader that aided in that recovery and started many households in a new direction. The four years at Bosque Redondo, followed by ten years of rations distribution once the reservation was established, accustomed Navajos to manufactured American goods and basic foodstuffs. The trader provided these in exchange for the Navajo products of wool, blankets, jewelry, livestock, and other goods. Manufactured goods, of course,

were also sought by other tribes and non-Natives living in the vicinity.

For the most part, Indian agents appointed from Washington to supervise these newly-designated reservations were in office too short a time to begin to understand the people or to care about their problems. On the other hand, traders had a real vested interest in the welfare of their customers. In this post-Civil War period, firearms were not usually a trading post commodity, nor was whisky freely dipped from a hidden barrel as many Hollywood movies depict; the trader, wishing to stay alive, placed too high a value on his life. Traders who moved in with an idea of making quick fortunes found no hard money in circulation—many trading posts issued tin tokens in exchange for goods—and the Indians too clever to trade long with anyone who cheated them.

Simple integrity, leavened with understanding, humor, personal courage, and commitment were prime requisites for a successful trading venture. John Lorenzo Hubbell, founder of the trading post that is now the Hubbell Trading Post National Historic Site and one of the most successful and respected traders of his time, wrote in 1907 that, "…The first responsibility of an Indian trader…is to look after the material welfare of his neighbors" (Blue 1986:17). Modern-day trader Bruce Burnham elaborates in this way:

> *I would say that the role of the trader in the community was almost family-like, inasmuch as you had a responsibility to take care of your customer. You had a responsibility of making sure they ate year-round. A trader couldn't just merchandise his wares, because what would happen would be, the temptation would be just too great for the customer to just spend all their buying power in a six-week period, and then have two, three months of no ability to buy at all. And so a trader had a grave responsibility of budgeting his customer… You knew always, within ten dollars—I don't know how we did it—but a good trader always knew within ten dollars of what every customer owed. And you knew that they would have ten, twelve bags of wool, or you knew that they would have seventy-five or eighty head of lambs to sell. So you knew what their capacity was to pay their bill, so you kind of gauged 'em and only would let 'em spend so much every month, knowing that by the time wool season was here, or the time lamb season was here, they would be pretty much at their limit…We knew within ten dollars of how much a customer owed. We knew within ten or fifteen dollars how much they would have in assets to pay. So it was a funny system, but that was probably the gravest responsibility that a trader had. But it wasn't something that was explained to him, it was just something that you took for granted, and your customer took it for granted, and that's just the way it was. You didn't do anything that would put a family in a position of not being able to eat.*
> (Burnham 1998)

In the early days, most traders had only a grammar school education but they soon found themselves bilingual and playing the roles of a doctor, banker, advisor, peacemaker, and even mortician. They also found themselves thrust into a position of being the

bridge between their community and the various government agencies.

They came from various backgrounds. Among the first in the Little Colorado region were a German named Hermann Wolf, who established a post in the 1870s near Canyon Diablo, and the legendary trader, Berrando, who also about 1870 built "a kind of trading post" at Horse Head Crossing—later known as Holbrook, Arizona—and put up a sign at the door reading "If you have money, you can eat. No got money, eat anyway." Some were Mormons like Joseph Lehi Foutz and his sons and sons-in-law who settled in the Tuba City area along with Jacob Hamblin. Fellow Mormons David Udall and his sons established themselves around St. Johns and Seth "Shush" Tanner and his sons scattered in and around the Gallup area. A number were Civil War veterans, from both North and South, sick of war and crowding civilization: men like Anson Damon and Samuel Day. Damon was a son of Irish immigrants and a veteran of the California Column who had been stationed at Ft. Sumner during the last two years of Navajo incarceration. He married a Navajo woman and returned with them to their reservation in 1868 and set up a trading post in Ft. Defiance. Day served with an Ohio Infantry Regiment during the Civil War, then came West as a surveyor, and eventually to the Navajo Reservation where he and his sons established several trading posts near St. Michaels and Chinle, Arizona. Others were Englishmen, Irish, Germans, or Czechs. A rare few were survivors of the old mountain-man trade, their leathery skins bullet-scarred and sun-cured.

Many of these early traders had very little collateral or financial backing but would manage, somehow, to get enough credit to assemble a wagonload of pots and pans, staples like flour, coffee, and sugar, some bolts of cloth, and a variety of tools. At the same time they would initiate the difficult and thorny process of obtaining a trader's license from the Indian Service, a process dependent more on who you knew, rather than what you knew. With license and inventory in hand, the would-be trader began to look for a good location—easy for his Native customers, but not too close to his competition. In most cases, this resulted in locating near a spring or other source of water used by locals for their domestic and livestock needs. Since they had to make periodic trips to the water source, the trader could count on their business at the same time. Historical records are replete with the names of traders who stayed in the business less than a year, but a number of them stuck it out and made a life-long vocation of it, like Dan DuBois at Rock Springs, Charles Cousins at Cornfields, Thomas Keam at Hopi, David and William Babbitt at Red Lake, Flagstaff, Willow Springs, Cedar Ridge and Tuba City. By the beginning of the 20th century, there were nearly 50 active trading posts throughout the southern portion of the Navajo Reservation, the area embraced by the Little Colorado River and its tributaries. Lorenzo Hubbell owned or managed about two dozen of these posts, including a retail business in Winslow.

In Zuni, and the region to the north, traders like C.G. Wallace, Charles Kelsey, and the Vanderwagens were responding to the request by Fred Harvey to furnish his company with Indian-made jewelry. For more than four decades, almost every family in Zuni had at least one active silversmith. The Navajos to the north also became highly involved in this

lucrative jewelry manufacturing business.

This demand also led to the production of imitation jewelry, and in an effort to curtail this activity, a number of traders banded together to form the United Indian Traders Association (UITA) in 1931. The initial function of this organization was to fight for legislation that would insure authenticity of Indian arts and crafts. But then came the Depression, and World War II, followed by a period of dramatic transformations throughout Indian Country. With the demise of passenger trains, the need for Indian jewelry and souvenir crafts by the Fred Harvey Company likewise diminished. For awhile, however, this was offset by increased automobile traffic on national highways such as Route 66.

Indian craftspeople took advantage of this increased traffic by setting up little road-side booths and selling their jewelry, pottery, and rugs directly to the tourist. For the first time, Navajos, Zunis, and Hopis became entrepreneurs, resulting in less and less dependence on the middleman—the trader. At the tribal level, guilds and co-ops were established to encourage consistency in products, provide raw materials, and develop regional and national markets. All these activities replaced the role the local trader had played in the area of arts and crafts.

By the end of the 1960s, paved roads crisscrossed the Navajo and Hopi reservations, and almost all families had replaced their wagons with pick-ups. This made travel a lot easier and trips to border towns, like Gallup, Holbrook, Winslow, and Flagstaff, became routine for shopping purposes. This, too, further eroded the need to rely on the local trader for foodstuffs and gasoline.

At the same time, communities on the various reservations became more cosmopolitan. Ramah, Zuni, Window Rock, Ft. Defiance, Ganado, Keams Canyon, Polacca, Tuba City, and Pinyon were supporting grocery stores, gas stations, restaurants, laundromats, churches, public schools, post offices, and a motel or two. In many cases, the old traditional trading post was closed down, or converted into a convenience store.

Things came to a climax in 1972, with a series of hearings carried out by the Federal Trade Commission, responding to complaints over relationships between some traders and their customers and abuses of the pawn system. For over a century, the practice of pawn was a central part of Navajo household economics and, to a lesser degree, for the Apache, Hopi, and Zuni. For the Navajo in particular, their major source of income came in the late spring and early summer with the sale of wool and lambs. For the rest of the year, they had to rely on their ability to produce and sell woven rugs and/or pieces of silver and turquoise jewelry. In many situations, it was the practice of pawning individual property that provided the necessary funds for acquiring foodstuffs, clothing, and supplies for immediate domestic needs.

Because trade in Indian country existed on a system of barter and credit, the most successful traders were those who extended enough credit to keep their clientele through the lean months, but not to the extent that they bankrupted themselves. Collateral for this credit was usually jewelry, Pendleton blankets, guns, or even saddles that were deposited as pawn with the trader. Government regulations determined the amount of interest the trader could charge, and the length of time the trader had to keep the item

(usually six months) after the last principle/interest payment had been made before he could consider the loan in default and take possession of the item (then considered "dead" pawn).

Most traders carried some families on their books indefinitely, and when a trading post changed hands or went out of business, it was often found that the owner was owed large sums of money in uncollected debts. In the vast majority of cases, traders conducted their pawn business with utmost honesty and integrity, and Native families scrupulously made their interest and principle payments on time and redeemed the items in proper fashion.

Unfortunately, within a system of barter and exchange such as this, there was bound to be situations, on both sides, that would lead to controversy, arguments, and accusations. As a result of the FTC hearings and recommendations, Congress enacted new regulations regarding the procedures dealing with pawn. These stifling regulations were appealed by UITA, but to no avail. Within a year or so, pawn, which had been a constant form of exchange between Navajos and traders for over a century, ceased almost altogether. Today, only a few businesses in border towns continue to deal in pawn, in spite of all the new restrictions and paper work.

By the end of the 20th century, the classic trading post era was over. The Hubbell trading post and home in Ganado had been purchased and restored by the National Park Service as a National Historic Site and UITA had been disbanded. Many other posts lie alone and abandoned, their stark, decaying walls mute testimony to one of the most unique and fascinating stories of the life in the Southwest.

Bruce Burnham describes the future of his profession in this way:

> *The future of Indian trading, I think, is going to swing more and more in line with rug weaving and arts and crafts. The traders are no longer going to be general merchandise Indian traders as we've known 'em, but they're going to become specialized traders of dealing in arts and crafts. The trading posts, as a trading post, is doomed, and we're on the last legs of it now… And we're just one of many, many businesses in the United States that have made the crossover into the computer age and not survived it. It was more pronounced for us, because we went from seeing our customers riding in a wagon to data processing, in forty years. That's a tremendous change. It hasn't been that long since I've seen Navajos coming into the store in a wagon.* (Burnham 1998)

However, a vestige of that era still remains in Gallup, and to some extent, along the Route 66-Interstate 40 corridor. Perhaps the store that most retains the atmosphere of the old-time trading post is Ellis Tanner Trading Company. It includes a complete line of groceries, plus a meat counter (always fresh mutton), a cafeteria that serves the best fry bread and lamb stew in town, a very active pawn department, and a sizable selection of Indian arts and crafts for sale. In the spring there are clerks who will assist their Indian customers in filing their income tax forms. They pay good prices in the spring for wool, and for pinyon nuts in the fall. Another major operation in downtown Gallup is Richardson's Trading Post. The business has been in the family since 1911, and the family patriarch, 86-year-old Bill Richardson,

still works at least five days a week. His business is centered around the buying and selling of Indian crafts, mainly jewelry, rugs, and paintings, but he does carry on a lively pawn business. Two other stores, Perry Null's (formerly Tobe Turpen's) Trading Post and Bill Malone's Shush Yaz Trading Post also deal in pawn, as well as buying and selling arts and crafts. Griswold's Trading Post, just east of Window Rock, conducts a similar business.

In the Sanders, Arizona area there are also two traditional trading posts that, although visitor/tourist oriented, do a good business with their Navajo customers. One is Indian Ruins Trading Post owned by a second-generation trader, Armand Ortega, and the other is Burnham Trading Post, owned and operated by fourth-generation trader Bruce Burnham.

Gallup: Home of the Inter-tribal Indian Ceremonial

In the 1920s Gallup was a dry, dusty town spread along the rail tracks of the Atchison, Topeka and Santa Fe Railroad. People and buildings alike were constantly pounded by the unrelenting winds, and covered with a combination of dust and coal soot. Many streets in town were not yet paved. The town boasted almost 2,000 residents, a railroad depot, several hotels and cafes, a number of saloons, and Kitchen's Opera House. Both in town and scattered throughout the vicinity were a number of trading posts that catered primarily to Navajos and Zunis. Thanks to businesses like the Fred Harvey Co., Navajo and Zuni, as well as some Hopi, jewelry and other crafts were getting recognized by the general public. Therefore, it seemed likely that a broader exposure to Native American customs, dances, traditional foods, rodeos, and other games would expand public appreciation of Native arts and crafts, and thus, increase the demand.

At a Kiwanis Club meeting in the spring of 1922, trader Mike Kirk proposed that the community undertake an annual tribute to Native people from around the region. With the financial backing of the railroad and the Kiwanis Club, Gallup hosted a four-day gathering in the early fall of that year. Indian families arrived from all directions in their horse-drawn wagons, bonfires attracted Indian and visitor alike, and automobile headlights were used to illuminate the night dances. Over the years, the Inter-Tribal Indian Ceremonial became firmly rooted in Gallup's calendar of activities and was attended by thousands of Southwestern Indians, tourists, craft dealers, and collectors from all over the country.

In 1952, the Gallup Ceremonial welcomed its most famous guest. Having just won the Republican nomination for president, Dwight D. Eisenhower accepted an invitation to attend that year's event. He felt it was most appropriate since that was the first time Navajos could vote in both national and state elections.

The mid-1970s saw a major change in the Ceremonial. The old performance grounds were incorporated into the right-of-way for the new Interstate 40 and land was purchased about five miles east of Gallup, near Churchrock, for the new facility. In 1975, the Gallup Ceremonial held its first event in the new arena and grounds at Red Rock State Park. Today, the Gallup Inter-Tribal Indian Ceremonial, the largest Indian related event in North America, is still a major attraction. Held during

the second week in August, the event consists of a colorful and exciting assortment of arts and crafts booths, food booths, exhibit hall of juried art, craft demonstrators, fashion shows, cultural workshops, rodeos, song-and-dance competitions, golf tournament, pow-wows, queen contest, parades, entertainment, long-distance runs, and its famous Night Performances which proudly depict traditional songs and dances of almost two dozen tribal groups from the western United States, Canada, and Mexico.

Native American Arts Shows and Auctions

Throughout the Little Colorado River Valley, or nearby, a number of art shows and/or auctions in addition to the Ceremonial are conducted annually.

The Hubbell Trading Post National Historic Site in Ganado, Arizona sponsors two extraordinary Native American Art Auctions every year. Both auctions include contemporary and antique Navajo weavings, Pueblo kachina carvings, pottery, paintings, sculptures, and baskets from many tribes. Sale of items usually ranges from $20 to $4,000. All contemporary items are submitted for sale by the artisans themselves, some of whom attend the auction and will pose for a picture with their item and the winning bidder. In association with the auction are a number of booths selling a variety of native foods.

The Museum of Northern Arizona in Flagstaff conducts three major Native American Festivals of Art and Culture each year. The Zuni show is usually held at the end of May, and is a good opportunity to experience traditional Zuni dances and flute playing. Visitors can also watch artisans, weavers, inlay jewelers, fetish carvers, potters, and painters demonstrate their crafts. The Hopi show always takes place around the Fourth of July weekend, and features numerous artists and craftspeople from the twelve Hopi villages who continue to create and innovate upon centuries-old arts and crafts traditions. Up-close demonstrations, dance groups, music, traditional foods, and insightful discussions about the Hopi values of humility, cooperation, respect, balance, and earth stewardship fill the Museum grounds throughout the weekend. The Navajo show takes place in early August and is augmented by cultural seminars and workshops on Navajo language and philosophy, traditional songs and dances, a retrospective fashion show, presentations by contemporary native filmmakers, booths selling native foods, and craft demonstrations, including weavers working on upright looms.

These three shows have a fascinating history. In the 1920s, the new director of the Museum of Northern Arizona, Dr. Harold Colton, and his wife, Mary-Russell Ferrell Colton, a recognized artist in her own right, became very concerned over the deterioration of traditional crafts among Southwest Indians. Their efforts to help remedy this situation centered on their creation of an exhibit and sale on the museum grounds. This exhibit, specializing on the Hopi, and the subsequent ones focusing on Navajo and Zuni, have a four-fold objective: (1) to encourage the manufacture of objects of artistic and commercial value which have fallen into disuse and are becoming rare; (2) to stimulate better workmanship among all the people; (3) to encourage the development of new forms of art of purely Indian design and the application of old arts to modern uses;

and (4) to create a wider market for Hopi (and Navajo and Zuni) goods of the finest type.

In 1930, the Coltons established the annual Hopi Craftsman Exhibit at the museum to provide a place for Hopi craft work to be shown and sold and to furnish an incentive for excellence in the work. At first they concentrated on pottery, basketry, and weaving, but by 1940 jewelry also became an item of interest. The shows were discontinued during World War II, but started up again in 1947. At that time, the Coltons worked closely with Paul Saufkie, Fred Kabotie, and 18 Hopi veterans who established the silversmithing training classes under the G.I. Veterans' Program. This project not only produced a number of fine Hopi silversmiths, but was also instrumental in the development of an overlay technique that became distinctively Hopi.

In 1949, the Coltons expanded their efforts at promoting Indian crafts by initiating a Navajo Crafts Show, and in 1986 the museum added an exhibit and sale of Zuni crafts and jewelry.

The Museum of Northern Arizona also sponsors a "Celebraciones de la Gente," or Celebration of the Day of the Dead (Dia de los Muertos). This is an ancient Mesoamerican holiday held throughout Mexico, Latin America, and in the Hispanic American Southwest. This festival offers the visitor an insight to traditional rituals, songs, foods, and a wide assortment of Hispanic crafts and art.

The Navajo Nation conducts a series of fairs throughout the fall at several locations. Each of these fairs include rodeos, carnivals, queen contests, 4-H and livestock exhibits, pow-wows, a parade, evening programs and traditional dances, as well as a large assortment of contemporary arts and crafts. The Navajo Nation Fair in Window Rock and the fair held in Tuba City are truly spectacular cultural events.

Ancient Way Arts Trail

A recent development has been undertaken to expand the old Trail of the Ancients Byway into an Ancient Way Arts Trail. This trail will incorporate Route 53 from Grants, New Mexico, to Zuni Pueblo, and then north on Route 602 to Gallup, and then follow Route 491 to Newcomb. The goal of this designation is to better market the artists and craftspeople who live along the route and to enhance regional economic development by providing additional advertising and exposure to trading posts, art galleries, museums and other tourist-related facilities that can be found along the Trail. The corridor between El Morro National Monument and the small community of Ramah is active year-round with some type of art-related event. To the south, the Navajo families around Pine Hill, have formed the Ramah Navajo Weavers Guild. The association utilizes a traditional 8-sided hogan as their office, meeting place, and sales room. These weavers maintain their own standards for beautiful rugs and pillows. All products are woven with locally grown, handspun, naturally dyed, Churro wool. Members are available for craft demonstrations and/or lectures on the history of Navajo weaving.

Zuni Pueblo includes an Arts & Crafts Enterprise, a Visitor Center, the A:shiwi A:wan Museum and Heritage Center, the Zuni Craftsman's Cooperative, and several privately

owned and operated galleries and studios. Tours can be arranged to visit artists at their workrooms in the homes and to the old Spanish mission church which has beautiful murals of Zuni kachinas. An annual Zuni Arts Expo is always held on the same weekend as the Inter-Tribal Indian Ceremonial in Gallup and the annual Zuni Tribal Fair follows shortly thereafter. Two active trading posts, Turquoise Village and Silver Rain Jewelry, provide a wide assortment of Zuni jewelry, fetishes, paintings, and pottery.

On Route 602, Joe Milo's (Joe Milosevich) Whitewater Trading Co. is an active, modern trading post representing a legacy of the working relationships between a trader and his Navajo and Zuni customers.

In Gallup, a new facility, the Gallup Performing Arts Center (GPAC), plays host to a number of cultural activities, including dance and music classes and recitals, monthly art shows featuring local artists, bluegrass sessions, teacher workshops and private musical instrument lessons. Generally, GPAC broadens the base of understanding, appreciation and support for the performing and visual arts through meaningful educational initiatives and community partnerships.

Hopi Festivals

The Hopi villages also offer a variety of outstanding crafts including plainware and decorated pottery, overlay jewelry, ceremonial textiles, and kachina figurines. They are the only Puebloans who still produce baskets in fairly large numbers and in a variety of techniques (plaited, coil, and wicker). The Hopi Cultural Museum and craft shop on Second Mesa maintains an expansive inventory, as does the nearby Hopi Silvercraft Guild. Cecil Calnimptewa a well-known kachina carver also operates a gallery on the outskirts of Old Oraibi, near the Monongye Gallery.

Since 2000, the Hopi Putavi Project has sponsored Tuhisma, the Hopi Indian Arts & Crafts Market Show. It is held every Columbus Day weekend on Second Mesa and consists of a number of Hopi craft vendors, social dances, and native food booths. Another annual show and sale of crafts takes place on a Saturday in July during Suvoyuki Day at Homol'ovi Ruins State Park. Dances, art demonstrations, and food booths are all part of this event and a larger arts and crafts sale occurs the following day in the village of Sipaulovi. Furthermore, on most Saturdays during the summer, the Park hosts a series of cultural programs and lectures on Hopi culture.

Economic Impact of Native Arts

Native American arts are a key factor in the continuing development of tourism, especially heritage tourism. Tourism has been and is a significant contribution to the economic prosperity of both New Mexico and Arizona. The estimated overall economic impact of the arts and crafts produced and sold in McKinley County alone amounts to approximately 20 percent of the total economy for the county. A fairly representative sample of statistics can also be seen in data provided by McKinley County for 2003. The first quarter of Arts & Crafts Cluster wages for McKinley County was $4,524,910 out of a total amounting to $29,516,517. This equates to 15.3 percent of all wages for that quarter in the county that were directly associated with the Arts & Crafts Cluster. For the same quarter, the data show that 3,493 jobs

were linked to the Arts & Crafts Cluster out of a total of 14,015. This computes to almost one-quarter of all the jobs in the county being related to the business of supplying the raw materials, producing, buying, or selling Native American arts and crafts.

The simple acts of buying and selling are one facet of the economics related to arts production. Engaging people in the experience of arts and crafts production adds another layer. More and more, people are seeking educational, authentic experiences and one-on-one interactions when they travel—and research shows they are willing to pay for the privilege. Artists who are willing and able to host guests can provide the unique experience and opportunity to learn about a culture that many travelers are seeking.

Mural Art Reflects Life in Little Colorado Communities

For decades, Gallup has been graced with murals, both indoors and on the walls of buildings throughout the downtown area. Remnants of a painting of a 1920s-style tour bus on a south First Street building is perhaps the oldest public mural in town. In the 1980s and early 1990s, several murals were commissioned by the Main Street, U.S.A. Program. These included Elmer Yazzie's rendition of Pyramid Rock – Church Rock scene, "The Rainmaker" by Ken Van Brott, and "Historical Buildings" by Mike Wallace. In 2001, Be Sargent was commissioned to paint what is now the largest (18 ft by 60 ft) outdoor public mural in the downtown area. The mural honors the famous Navajo Code Talkers, a group of World War II Marines who used their native language as a code in many Pacific battles. The mural depicts these Navajo warriors in cultural scenes before, during, and after World War II. In 2005-06, Sargent completed two more murals on the front of the Gallup-McKinley County Adult Detention Center. The "Work of Mind" is on the left side of the main entrance and is balanced by the "Work of Heart" mural on the right. At the same time, the county sponsored a contest for a mural design that would enhance the new addition of the County Administration Building. The winner was Navajo artist Jerry Brown who conceived, produced, and installed a 20-ft by 25-ft mural using hundreds of ceramic tiles to create a mosaic depicting an idealized rural landscape of McKinley County.

Perhaps the grandest, and most expensive, mural project began in 2005. Known as the Downtown Mural Project, it consisted of eight buildings with unobstructed walls, eight subjects, and eight artists. Over the next two years the following artists all completed their assigned projects: Irving Bahe, "Ceremonial;" Andrew Butler, "The Coal Mining Era;" Geddy Epaloose, "The Zuni Mural;" Chester Kahn, "Native American Trading;" Paul Newman, "The Great Gallup Mural;" Leon "Ric" Sarracino, "Gallup Community Life;" Erica Rae Sykes, "Multi-Cultural Women's Mural;" and Richard K. Yazzie, "The (Navajo) Long Walk Home." In 2007, two additional murals were completed. One is a tribute to all the veterans from McKinley County, and the other, by Ric Sarracino is entitled "Gallup Hispanics."

Gallup is renowned for its indoor murals as well. The two most famous murals were done under the auspices of the Works Progress Administration (WPA). Both are inside the McKinley County Courthouse, which was also built with WPA funds. On the ground floor is a 60 square-foot mural entitled

"Zuni Pottery Woman" done by Anna Keener Wilton. On the second floor, in the main courtroom, all four walls are covered with a mural by Lloyd Moyan entitled "History of New Mexico." This 2,000 square-foot mural is the largest WPA painting in the state of New Mexico. Both murals were executed in 1940.

Without doubt, the most ambitious undertaking, at least from the private sector, has been Ellis Tanner's "Circle of Light." In 1994, Tanner commissioned Navajo artist Chester Kahn to paint murals of prominent Navajos on the walls of his business, Ellis Tanner Trading Company, for the purpose of inspiring Navajo youth. The seven-year project resulted in 58 individual panels honoring prominent Navajo people of the 20th century. From nationally recognized traditional and contemporary artists, musicians, sports figures, published scholars, journalists, physicians, educators, entrepreneurs, tribal government and community leaders, to lawyers, scientists, and veterans, these individuals exemplify the tenacity and commitment of the Navajo to succeed in their chosen fields while still maintaining a strong sense of cultural affiliation and pride. Three additional murals, the "Return from Ft. Sumner," "Honoring the Veterans," and "The Working People" represent significant events and accomplishments of the Navajo people as a nation.

Once the murals were finished, Tanner expanded the project in several directions to continue the idea of inspiring Navajo youth. He established a non-profit organization, the Circle of Light Navajo Educational Project (CLNEP), whose objective is to foster a strong sense of cultural pride and self-worth in Navajo youth. Today, the project has a full-time staff, gives tours of the murals, has created publications and a research library, and has developed an outreach program available to schools.

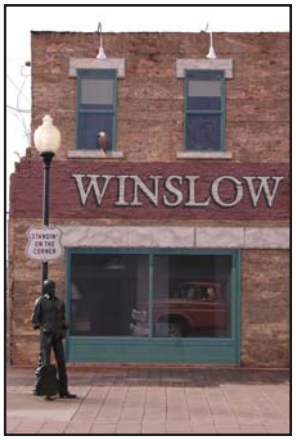
Tanner, a fourth-generation Indian trader, sees this Circle of Light Mural project as a means to pay honor to the people with whom he has worked for most of his life. This unique set of murals is a visual rendering of Navajo history and culture, and can be as popular with tourists and visitors as it is with his Navajo customers.

In Window Rock, the Navajo and Bureau of Indian Affairs buildings that were to comprise the new Navajo Tribal administrative center were built between 1933 and 1935. The Navajo Tribal Council Chamber was constructed of sandstone blocks, in an 8-sided configuration, resembling a traditional Hogan. The interior walls are covered with a mural that depicts the history of the Navajo people. Using WPA funds, Indian Commissioner John Collier hired Gerald Nailor and his assistant Hoke Dinetsosie to use the fresco technique for painting the mural. Over the years the mural has been subjected to abuse and leaky ceilings, but at present, has been restored and is properly attended to, in recognition of its true historical value.

In Zuni, unusual and fascinating murals appear on two interior walls of Our Lady of Guadalupe Mission. Built in 1629 and restored after the Pueblo Revolt of 1680, the church gradually fell into disuse in the latter part of the 19th century. In 1966, that the Catholic Church, Pueblo of Zuni, and the National Park Service cooperated in a project to restore the church. The effort was completed in 1970 and the mission was formally rededicated on May 29, 1972. It was then that the noted Zuni artist Alex Seowtewa approached Fr. Niles Kraft with the idea of painting

representations of traditional kachinas on the walls of the restored mission. Permission was granted and Seowtewa laid out his plans for the two murals. On the north wall, the main subject would be the Shalako who would be associated with all the other Holy People that are active and present in the winter dances and ceremonies. On the south wall, he planned to paint renditions of all the kachinas that dance in the summer months when villagers seek rain and bountiful crops. Seowtewa's son Kenneth finished the murals three decades later and the paintings have received both national and international recognition. Mass is no longer celebrated in the mission, but guided tours are available from the Zuni Tourism Office.

Painting murals inside religious buildings is nothing new to Pueblo artists. Kivas—traditional, semi-underground, Pueblo sacred structures used by men—were also sometimes painted with murals that represented clan and other sacred ceremonies, deities, or other important subjects and events.



The mural and bronze sculpture that comprise "Standin' on the Corner Park" on Route 66 in Winslow are already a focal point of the community. The Route 66 Performance Plaza being built adjacent to the park will add additional interest and life to the downtown.

Both Winslow and Holbrook boast many downtown murals. Large and small, they depict different aspects of life in the two frontier towns including the railroad, shootouts, Native American trading, cattle grazing, the Pony Express, Route 66, and the mythical jackalope. A look at these murals is a look back in time.

One of Winslow's murals, however, has a more modern reference. In the early 1970's, a song written by Glenn Frey and Jackson Browne, *Take It Easy*, became the first hit song by The Eagles. The verse, "Standin' on a corner in Winslow, Arizona" peaked people's interest in this small town on Route 66. The corner, at the intersection of Second Street (Route 66) and Kinsley Avenue is now the most famous spot in Winslow. There is a life-size bronze statue of a young man holding a guitar and a two-story mural depicting the story behind the famous song. On the last weekend in September, the townspeople turn out for the annual Standin' On The Corner Festival. This two-day street party features a variety of live music and numerous arts and crafts booths (mostly Navajo and Hopi). In conjunction with the festival is the annual show and sale of the High Desert Piece-makers Quilt Guild. This unique show features the products of more than 20 Winslow artists. The Guild has their own workshop, a converted home, where the members can share the work space, tools, and sewing machines. Quilting is a quintessential American art tradition, reflecting the creativity and resourcefulness of the quilter. Quilts from the High Desert Piece-makers reflect Southwest and Native-influenced designs as well as more common quilt patterns. Another activity tied into the festival is the Just Cruzin' Car Show. This event is a showcase for antique and restored vintage autos that come from around the nation. It features a large array of automobiles of all styles and sizes.

Holbrook, in addition to its murals, has its impressive courthouse. In 1895, Navajo County was created from western Apache County, and Holbrook was designated the county seat. The imposing courthouse was completed in 1898, and served in that capacity until 1976. Today, the courthouse is home to a fascinating museum. Visitors step back in time and learn about the area's wild history. A walk through the old jail, with walls covered in prisoners' artwork, is especially interesting. During the summer months, Native American dances are held in the

courtyard on weekday evenings. Many special events also center around the courthouse, such as Old West Days in August which features arts and crafts booths in addition to other kinds of entertainment.

DISTINCTIVENESS OF THEME

Native Southwest arts and crafts are among the most recognizable artistic styles in the world. Navajos, Hopis, and Zunis share in this rich tradition, developed over thousands of years, and yet exhibit techniques and specialized forms and patterns that distinguish their art from other Southwest cultures. Native art, whether of traditional or contemporary design, continues to enjoy popularity with collectors and individual enthusiasts worldwide. Arts and crafts production is one of the mainstays of Native economies and one way culture and customs are transmitted from one generation to the next. Trading posts, one of the iconic images of the American Southwest, were in reality as influential in the shaping of the Southwest in the late 19th and 20th centuries as was the railroad or other industries. As places where diverse cultures met, staple goods were obtained, and the business of daily life was conducted, their role in their respective communities was significant and long-lasting, sometimes to this day. Numerous murals in Little Colorado communities depict the impact of Native arts, trading, and other significant aspects of life in the Southwest. While the mural art form itself is not exclusive to the Little Colorado River Valley, the distinctive subject matter of the paintings is. The subject matter reflects both major milestones or aspects of local history and culture and major national events and their impact on the local region.

RELATED RESOURCES LIST

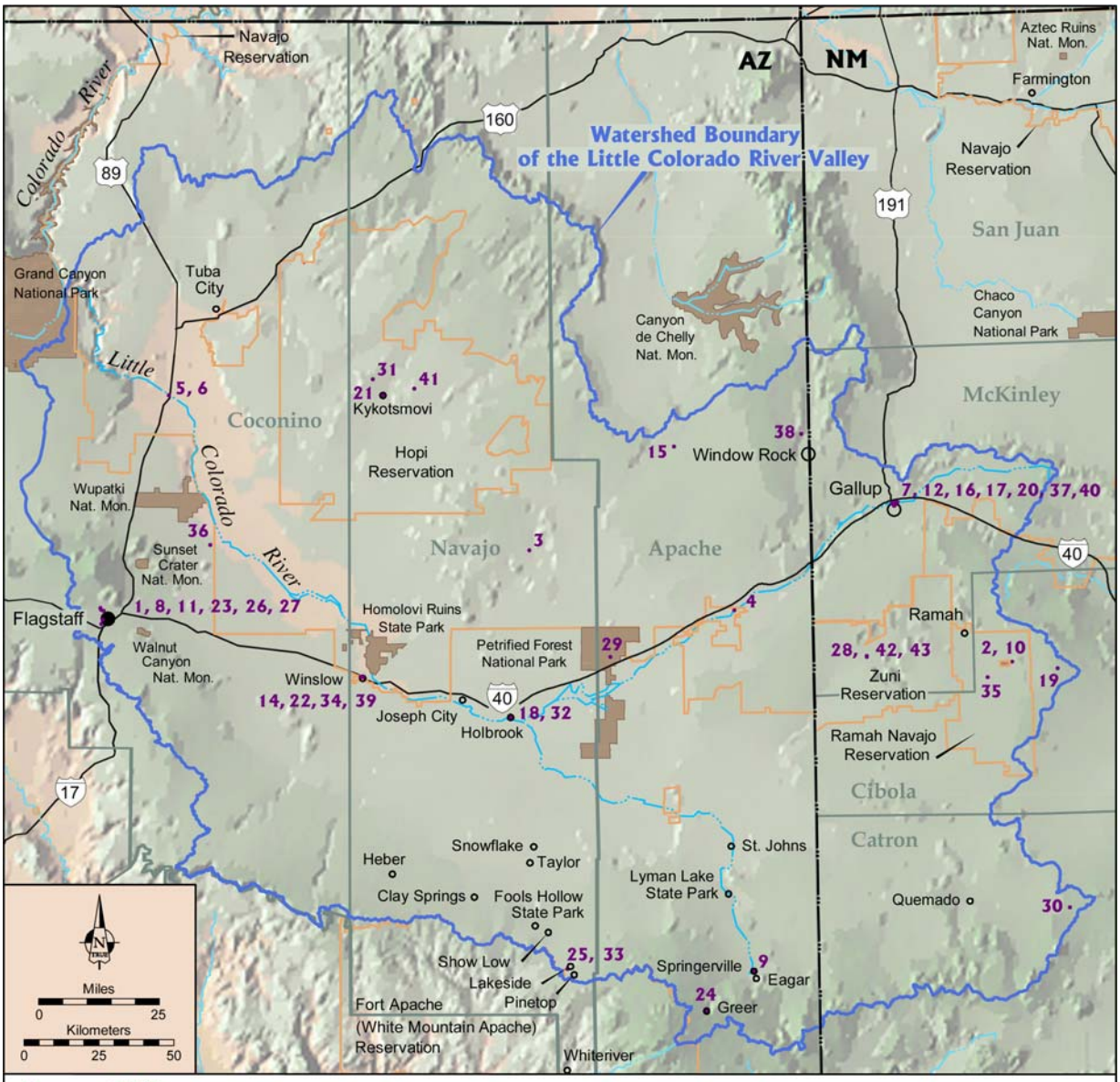
- **1st Friday Art Walk, Flagstaff:** A popular event in Flagstaff for years, the many downtown art shops and galleries stay open late, host artist receptions, and otherwise celebrate the arts once a month. The vast majority of the businesses feature Native arts or arts by non-Native locals.

- **Ancient Way Art Trail, New Mexico:** A designated route that takes travelers through Navajo, Zuni, and other artistic points of interest in western New Mexico.

- **Bitahochee Trading Post, Indian Wells:** A trading post in the past, a new non-profit hopes to make the historic site a center for Navajo arts and cultural education in the future.

- **Burnham Trading Post, Sanders:** Operated by fourth-generation trader Bruce Burnham and his wife, who also comes from a long line of traders, Burnham's is one of the few remaining posts that still trades in the traditional way. Part convenient store, part trading post with pawn, and part Navajo arts gallery, the post is a source for wool dyed by hand using vegetal dyes, rugs woven in the New Lands style, and other exquisite Navajo arts.

- **Cameron Overlook Market, Cameron Chapter:** Roadside vending of arts and crafts has been a common practice among many Native artists. Highway 64, leading from Cameron to the South Rim of the Grand Canyon, has been one of the most popular locations. Arizona Department of Transportation concerns over the safety of cars exiting and entering the highway from vending stalls led to the idea of



Art and Life

1 1st Friday Art Walk
2 Ancient Way Art Trail
3 Bitahochee Trading Post
4 Burnham Trading Post
5 Cameron Overlook Market
6 Cameron Trading Post
7 Circle of Light Murals
8 Coconino Center for the Arts
9 Cushman Art Museum
10 El Morro Area Arts Council and Old School Gallery
11 Flagstaff Friends of Traditional Music and Pickin' in the Pines Bluegrass and Acoustic Music Festival
12 Gallup Performing Arts Center
13 Hopi Reggae music events
14 Hubbell Building
15 Hubbell Trading Post National Historic Site
16 Octavia Fellin Public Library
17 Indian Dances
18 Indian Dances
19 Inscription Rock Trading Post
20 Inter-Tribal Indian Ceremonial
21 KUYI Hopi Radio
22 La Posada Hotel
23 Museum of Northern Arizona
24 Music from Greer
25 Native American Festival
26 Northern Arizona University
27 Northern Arizona Book Festival
28 Our Lady of Guadalupe Mission
29 Painted Desert Inn (Fred Kabotie murals)
30 Pie Town Pie Festival
31 Quilt Shows
32 Quilt Shows
33 Quilt Shows
34 Quilt Shows
35 Ramah Navajo Weavers Association
36 Roden Crater
37 Sacred Heart Cathedral and Church of the Good Shepherd
38 Sacred Heart Cathedral and Church of the Good Shepherd
39 Snowdrift studio and gallery
40 Storyteller Museum and Wisdon Keeper Bookstore at Gallup Cultural Center
41 Tuhimsa
42 Zuni Cultural Arts Expo
43 Zuni Mountain Sancturary

a single site developed specifically for venders and also incorporating traditional Navajo structures, a cultural area, and information signage. The site, now under development, overlooks the incredible Little Colorado River Gorge and affords views of the Painted Desert to the east.

- **Cameron Trading Post, Cameron Chapter:** First established in 1916, it has served Grand Canyon and Native American Indian Country visitors for more than 90 years. Gardens and an old suspension bridge over the Little Colorado River delight guests.

- **Circle of Light Murals, Gallup:** Inside the Ellis Tanner Trading Company, the 58 portraits of prominent Navajos and three historical panels serve as an illustrated history of Navajo accomplishments and source of inspiration for Navajo youth and non-Natives alike.

- **Coconino Center for the Arts, Flagstaff:** The Center has a 4,000 sq. ft. gallery and 200-seat theatre and hosts temporary exhibits and other arts programming year-round. Annual exhibits and programs focus on children's art, contemporary Native art, and recycled art. Most of the exhibits feature local artists or local subjects.

- **El Morro Area Arts Council and Old School Gallery, Ramah:** Located in an old schoolhouse, the El Morro Area Arts Council promotes the significant talents of regional artists who work in a variety of media including glass, ceramics, paint, metal, and more. Extensive programming includes art workshops for adults and children, theatrical and musical productions, community dances, poetry groups, and more.

- **Flagstaff Friends of Traditional Music and Pickin' in the Pines Bluegrass and Acoustic Music Festival, Flagstaff:** Begun in the 1980s, this organization has been promoting acoustic music and traditional dancing through public concerts and collaboration with other organizations. With the opening of the Pine Mountain Amphitheatre, FFOTM began Pickin' in the Pines Bluegrass and Acoustic Music Festival in 2006. It is quickly becoming a major event in the world of acoustic music and in 2008, the festival will feature the Grammy Award-winning Del McCoury Band among others.

- **Gallup Performing Arts Center, Gallup:** The GPAC provides performance space, summer art camps, gallery space, and artistic instruction of all types.

- **Hubbell Building, Winslow:** A trading post for decades, the Hubbell Building is currently being renovated as the Winslow Welcome Center. Distinctive Navajo rug patterns are painted on the outside walls. The building will continue to display Native American arts and museum-quality exhibits.

- **Hubbell Trading Post National Historic Site, Ganado Chapter:** John Lorenzo Hubbell began trading at this site in 1878. He and his descendents operated the post until it was sold to the National Park Service in 1967. The Hubbell family were successful and well-respected traders, owning or operating up to two dozen other trading posts throughout the region. The Hubbell Trading Post is still an active trading

post, hosts two auctions of Native American arts every years, is in the process of restoring gardens that would have been present during J. L. Hubbell's time, and allows visitors to tour the Hubbell home.

- **Indian Dances, Gallup and Holbrook:** Both communities hold regular, evening Indian dances in front of their respective courthouses during the summer months. It is a good opportunity for residents and visitors alike to experience Native dances without imposing on a religious ceremony.

- **Inscription Rock Trading Post, Rte. 53 near Ramah:** A modern-day "trading post," Inscription Rock features the work of artists from nearby Zuni and Navajo as well as from around the world.

- **Inter-Tribal Indian Ceremonial, Gallup:** Since 1922, this event has grown to be one of the premier gatherings and celebrations for Native Americans in the United States. This annual four- to five-day event, the Inter-Tribal Ceremonial includes a juried art show, traditional dances, and traditional song performances, in addition to other events. Featured artists and performers come from surrounding tribes and from Native communities across the United States, Canada, and Central America.

- **KUYI Hopi Radio:** KUYI, Hopi owned and operated, began broadcasting in 2000 and currently reaches Flagstaff, Winslow, Tuba City, and the Interstate 40 corridor in addition to the Hopi Reservation. Its programming features a mix of traditional Hopi music, contemporary Native music from Hopi and other tribes, as well as local and regional news and some National Public Radio programming.

- **La Posada Hotel, Winslow:** The architectural masterpiece of Mary Colter, the former ATSF station and resort hotel is once again a functioning and popular restaurant, hotel, and meeting place for locals and visitors alike. The hotel also features many works by artist Tina Mion, who was one of five artists exhibited as part of the *Portraiture Now: Framing Memory* exhibit at the Smithsonian National Portrait Gallery from 2007-08.

- **Museum of Northern Arizona (MNA), Flagstaff:** The permanent collection of MNA consists of Native and non-Native arts from the Colorado Plateau region. The museum also hosts four major annual art shows and sales featuring Hopi, Navajo, Zuni, and Hispanic art as well as the *Trappings of the American West* annual exhibit that features arts and crafts related to the ranching lifestyle. MNA also has an artists in residence program and many arts education programs for children and adults alike.

- **Music from Greer, Greer:** Classical music finds a home in the White Mountains. Special summer concerts, including a free children's concert, give residents and visitors alike the opportunity to enjoy a type of performance usually found in urban settings.

- **Native American Festival, Pinetop-Lakeside:** This festival will celebrate its 21st year in 2008. It is a two-day juried art show that exhibits the work of approximately 80 Native artists. All work must be handmade and all artists must be present during the show.

- **Northern Arizona Book Festival, Flagstaff:** Founded in 1998, the annual festival features appearances by local and nationally-renowned writers including Toni Morison, Russell Banks, and others. Events include Native poetry readings, writing workshops, signings, and more.

- **Octavia Fellin Public Library, Gallup:** Librarian Octavia Fellin amassed a 10,000+ collection of Southwest books of significant quality over a period of 40 years and the collecting continues today. In addition to the Southwest Collection of books, the library holds 30 pieces of art from the Works Progress Administration, some of which are on display, and approximately 130 pieces from local artists.

- **Our Lady of Guadalupe Mission, Zuni:** The church itself is a classic example of 17th century Spanish mission architecture and inside are two contemporary murals by Zuni artist Alex Seowtewa and his son Kenneth. These murals feature the summer and winter pantheon of Zuni kachinas.

- **Painted Desert Inn (Fred Kabotie murals), Petrified Forest National Park:** Fred Kabotie became an accomplished artist of several forms: painting, silversmithing, and illustrating. He was known for rendering traditional Hopi themes in modern media. Three of his murals can be found inside the Painted Desert Inn.

- **Pie Town Pie Festival, Pie Town:** Pie Town, New Mexico got its name from the reputation of a WWI veteran who started baking pies as a business venture in the 1920s. The modern-day Pie Festival is a celebration of the town, its culinary legacy, and the creativity of local bakers. Many pies entered into the contest contain distinctly Southwest ingredients such as pinyon nuts.

- **Quilt Shows, Bacavi, Holbrook, Pinetop-Lakeside, Winslow:** The distinctly American art form of quilting reflects the surroundings, cultural influence, and creativity of individual quilters. Native and Southwest-inspired designs can be found at these shows along with the more traditional.

- **Ramah Navajo Weavers Association and New Mexico Fiber Arts Trail, Pine Hill:** Weavers belonging to the Association use handspun and naturally dyed wool from locally raised Churro sheep. The workshop, located in a hogan, is open to visitors seasonally. The Association is on the New Mexico Fiber Arts Trail which features 71 sites across the state where fiber arts are practiced with richness and vibrancy.

- **Sacred Heart Cathedral, Gallup and Church of the Good Shepherd, Ft. Defiance Chapter:** Both were designed by John Gaw Meem. Meem is recognized as a leader in the Pueblo Revival style of architecture and designed many buildings in Santa Fe, at the University of New Mexico in Albuquerque, and won recognition at an international competition for his design of the Colorado Springs Fine Arts Center in Colorado.

- **Snowdrift Art Space, Winslow:** Located in the historic Babbitt Brother Department Store (built in 1914), Snowdrift is a studio, gallery, and living space that features the sculptures of its owner as well as the work of other regional artists.

- **Storyteller Museum and Wisdom Keeper Bookstore at Gallup Cultural Center, Gallup**

- **Tony Hillerman novels:** Tony Hillerman has written 18 mystery novels as well as other fiction and non-fiction books pertaining to Navajo culture, the culture of other Natives and non-Natives living in the Southwest, and the landscape. He has won two awards from the American Mystery Writers of America: a 1974 Best Novel award and a 1991 Grand Master award. His works are noted for their in-depth cultural detail and sensitivity.

- **Tuhimsa, Second Mesa:** Held in October along with the Bacavi Quilt Show, the arts and crafts show features Hopi artists skilled in a variety of forms and media.

- **Zuni Cultural Arts Expo, Zuni:** Since 1993, the Expo has showcased high quality and authentic arts from award-winning Native artists. The Expo also features Zuni social dances.

PRIMARY REFERENCES

Adair, John
1944 *The Navajo and Pueblo Silversmiths*. University of Oklahoma Press, Norman.

Allen, Laura Graves
1984 *Contemporary Hopi Pottery*. Museum of Northern Arizona, Flagstaff.

Babbitt, James E.
1984 Trading Posts Along the Little Colorado River. *Plateau* (57)3:2-10.

Bahti, Mark
1975 *A Consumers Guide to Southwestern Indian Arts & Crafts*. Bahti Indian Arts, Tucson.

1999 *Spirit in the Stone*. Treasure Chest Books, Tucson.

Bahti, Tom, and Mark Bahti
1997 *Southwestern Indian Arts & Crafts*. K. C. Publications, Las Vegas.

Bassman, Theda
1993 *The Beauty of Hopi Jewelry*. Kiva Publishing Co., Santa Fe.

1996 *Treasures of the Zuni*. Northland Publishing Co., Flagstaff, Arizona.

1997a *The Beauty of Navajo Jewelry*. Kiva Publishing Co., Santa Fe.

1997b *Treasures of the Hopi*. Northland Publishing Co., Flagstaff, Arizona.

1998 *Treasures of the Navajo*. Northland Publishing Co., Flagstaff, Arizona.

Bassman, Theda, and Michael Bassman
1998 *Zuni Jewelry*. Schiffer Publishing Ltd., Atglen, Pennsylvania.

Blue, Martha
2000 *Indian Trader: The Life & Times of J. L. Hubbell*. Kiva Publishing, Inc., Walnut, California.

Burnham, Bruce
1998 Bruce Burnham Interview. Colorado Plateau Digital Archives, Cline Library, Northern Arizona University, Flagstaff, Arizona.

Cousins, Jean, and Bill Cousins
1986 A View from the Bullpen: A Navajo Ken of Traders and Trading Posts. *Plateau* 57(3):10-19.

1996 *Tales from Wide Ruins.* Texas Tech University Press, Lubbock.

Dittert, Alfred, and Fred Plog
1980 *Generations in Clay*. Northland Publishing Co., Flagstaff, Arizona.

Eddington, Patrick, and Susan Makov
1995 *Trading Post Guidebook.* Northland Publishing Co., Flagstaff, Arizona.

Getzwiller, Steve
1984 *The Fine Art of Navajo Weaving*. Ray Manley Publications, Tucson.

Gillmor, Frances, and Louisa Wade Wetherill
1953 *Traders to the Navajos: The Story of the Wetherills of Kayenta*. University of New Mexico Press, Albuquerque.

Graves, Laura
1998 *Thomas Varker Keam: Indian Trader*. University of Oklahoma Press, Norman.

Hall, Edward T.
1994 *West of the Thirties*. Anchor Books Doubleday, New York.

Hayes, Allen, and John Blom
1996 *Southwestern Pottery: Anasazi to Zuni*. Northland Publishing Co., Flagstaff, Arizona.

Hegemann, Elizabeth Compton
1963 *Navaho Trading Days*. University of New Mexico Press, Albuquerque.

Jacka, Lois E., and Jerry Jacka
1994 *Navajo Jewelry: A Legacy of Silver and Stone*. Northland Publishing Co., Flagstaff, Arizona.

1997 *Art of the Hopi*. Northland Publishing Co., Flagstaff, Arizona.

James, Harold
1988 *Rugs and Posts*. Schiffer Publishing, Ltd., Atglen, Pennsylvania.

Kaufman, Alice, and Christopher Selser
1985 *The Navajo Weaving Tradition*. E. P. Dutton Co., New York.

McNitt, Frank
1962 *The Indian Traders*. University of Oklahoma Press, Norman.

Newcomb, Charles
1968 *The Smoke Hole*. The Naylor Company, San Antonio.

Ostler, James, Marian Rodee, and Milford Nahohai
1995 *Zuni: A Village of Silversmiths*. Zuni A:Shiwi Publishing Co., Albuquerque.

Pendleton, Mary
1974 *Navajo and Hopi Weaving Techniques*. Macmillan Publishing Co., New York.

Powers, Willow Roberts
2001 *Navajo Trading: The End of an Era*. University of New Mexico Press, Albuquerque.

Richardson, Gladwell
1986 *Navajo Trader*. University of Arizona Press, Tucson.

Rodee, Marian
1996 *One Hundred Years of Navajo Rugs*. University of New Mexico Press, Albuquerque.

Rodee, Marian, and James Ostler
1986 *Zuni Pottery*. Schiffer Publishing, Ltd., Atglen, Pennsylvania.

Wagner, Sallie
1999 *Wide Ruins: Memories from a Navajo Trading Post*. University of New Mexico Press, Albuquerque.

Weigle, Marta, and Barbara Babcock
1997 *The Great Southwest of the Fred Harvey Co. & Santa Fe Railway*. The Heard Museum, Phoenix.

Wright, Barton
1977 *Hopi Kachinas*. Northland Publishing Co., Flagstaff, Arizona.

Wright, Margaret
Hopi Silver. Northland Publishing Co., Flagstaff, Arizona.

Theme 7
Outdoor Recreation

SUMMARY OF THEME

The spectacular natural and scenic resources within the proposed Little Colorado River Valley National Heritage Area provide the context for a wide range of outstanding outdoor recreation opportunities. The diverse topography, vegetation, and climate of the area play a vital role in shaping the outdoor leisure pursuits enjoyed by regional, national, and international visitors. The breathtaking beauty of the towering peaks, picturesque canyons, and wide open spaces express dramatic topographic variability. A variety of plant communities populate the landscape ranging from extensive grasslands to the largest Ponderosa Pine forest on the continent. Research has shown that the quality of a recreational experience is largely a function of the environment in which it occurs. Thus, the high quality environment of the Little Colorado River Valley provides an excellent backdrop for a multitude of meaningful recreational experiences.

Outdoor recreation and natural resources are intricately linked. A healthy environment is essential to the continued availability of diverse recreational opportunities in the Little Colorado River Valley. National Heritage Area designation would enhance existing efforts to protect and conserve the rich natural and scenic integrity of the region. Compatible economic development such as interpretive facilities and recreational trail development could boost local economies and increase awareness of the region's significant natural and scenic wonders. Resource protection and conservation programs would help sustain these valuable landscapes so they may be enjoyed by future generations of outdoor recreationists.

DESCRIPTION OF THEME

The prevalence of public land within the Little Colorado River Valley provides easy access to an abundant array of outstanding natural, scenic, and cultural resources. Three national forests offer opportunities for hunting, fishing, camping, backpacking, climbing, horseback riding, and off highway vehicle (OHV) use. Four national monuments and one national park, with a total area of 136,645 acres, afford access to remarkable natural features and cultural sites. Four state parks (more than 7,000 acres) and eight wildlife viewing areas (19,858 acres) provide excellent opportunities for camping, hiking, fishing, boating, and wildlife observation.

The numerous recreational resources within the Little Colorado River Valley serve a broad spectrum of visitors and local residents. From solitude to social interaction to fitness, outdoor recreation provides physical and psychological benefits to a wide variety of demographic groups. These benefits are significant given that more than 75 percent of Americans participate in some form of outdoor recreation.

Camping and Backpacking

Although some campers relish the rustic tradition of sleeping in a tent, others prefer the comfort and

convenience of pop-up trailers or recreational vehicles. Campgrounds within the proposed National Heritage Area accommodate a variety of visitor needs and expectations. Hundreds of designated campsites, ranging from primitive sites to developed sites with electrical and water hook-ups, exist on state and federal lands within the Little Colorado River Valley. Campgrounds such as Little Elden Springs Horse Camp and Cinder Hill OHV Area cater to campers with specific needs and interests.

Campers and backpackers seek a wide range of experiences. For some, spending time with family and friends in a group campground is a desirable outcome of their outdoor recreation experience. Others seek the solitude and quietude of backpacking in undeveloped wilderness areas where no mechanized travel is allowed and a leave no trace ethic prevails. Public lands within the proposed National Heritage Area easily accommodate the wide range of experiences sought by these outdoor recreationists.

In our increasingly industrialized and hectic world, wild places where humans can reconnect with the natural environment and seek inspiration are of major importance. The Little Colorado River Valley is home to five such areas: Kachina Peaks Wilderness, Strawberry Crater Wilderness, Mount Baldy Wilderness, Escudilla Wilderness Area, and Petrified Forest National Wilderness. These sites include more than 91,000 acres of land set aside in accordance with the Wilderness Act of 1964 to "secure for the American people of present and future generations the benefits of an enduring resource of wilderness."

Backpackers and day hikers are attracted to the astounding scenic beauty and interesting geologic features of these wilderness areas. At Strawberry Crater Wilderness, unusual geologic wonders abound. It was here that Strawberry Crater, the youngest volcano on the Colorado Plateau, erupted less than 1,000 years ago. Wilderness visitors can hike along the volcanic cinder cone and molten lava flows that appear frozen in time. Strawberry Crater is one of more than 600 craters and cones that make up the San Francisco Peaks volcanic field, the second largest volcanic field of its type in the United States. (Springerville Volcanic Field is the third largest of its type in the nation.)

Recreational Trails

Recreational trails within the Little Colorado River Valley are used by backpackers, hikers, bikers, runners, walkers, and horseback riders. Hundreds of trail miles span the gamut from rugged backcountry settings to easily accessible resources such as the Flagstaff Urban Trail System (FUTS) and the community trails near the city of Gallup. A wide range of trails, many of which are multi-use, accommodate nearly every skill level. Some trails, particularly those in developed areas, are universally accessible.

Recreational trails often lead to scenic vistas or areas of natural or cultural significance. Hikers that reach the summit of Mount Humphreys, the highest peak in Arizona (12,633 feet), are rewarded with amazing views of the Painted Desert and the North Rim of the Grand Canyon. En route to the top of this extinct volcano, hikers pass through several distinct biotic communities called *Life Zones*: piñon-juniper woodlands, ponderosa pine, mixed conifer, aspen, spruce-fir, and the only true alpine tundra in the state.

The slopes of the San Francisco Peaks are known as the place where C. Hart Merriam developed the concept of *Life Zones* in the late 19th century. The concept is based on the similarity of plant and animal distributions observed with increases in elevation and corresponding increases in latitude.

The proposed National Heritage Area includes and is adjacent to several major recreational trails. The eastern portion features the Arizona Trail, which traverses the state from Mexico to Utah, linking deserts, mountains, canyons, and communities. The intent of this trail is to highlight the state's topographic, biologic, historic, and cultural diversity. Advocates are engaged in ongoing efforts to gain National Scenic Trail status for the Arizona Trail. Attaining this prestigious status would increase trail recognition and provide access to technical assistance and funding.

The eastern portion of the Little Colorado River Valley is bordered by the Continental Divide National Scenic Trail. This scenic trail includes the Chain of Craters Area, located within the El Malpais National Conservation Area. The Chain of Craters, a unique geological oddity, was formed when an underground lava flow reached a weak area and created a rift at the surface flanked by 30 cinder cones.

To the south, the General Crook Trail follows the route of one of the first major roads in Arizona. Original blazes can still be seen on the ponderosa pines adjacent to this trail, which is popular with hikers, mountain bikers, and horseback riders.

Strikingly beautiful trails within the Little Colorado River Valley include Gallup's High Desert Trail, McGaffey Trails (Pyramid Rock and Church Rock), and the White Mountain trail system. The High Desert Trail is a newly developed 23-mile system that is frequented by mountain biking enthusiasts. Pyramid Rock and Church Rock trails near McGaffey provide stunning views of sandstone spires and other red rock formations. The White Mountain trail system consists of a series of multi-use loop trails and connectors. A collaborative effort of the National Forest Service, Pinetop/Lakeside TRACKS, and the Arizona State Parks Heritage Trails helped create the White Mountain trail system, much of which was built by dedicated volunteers.

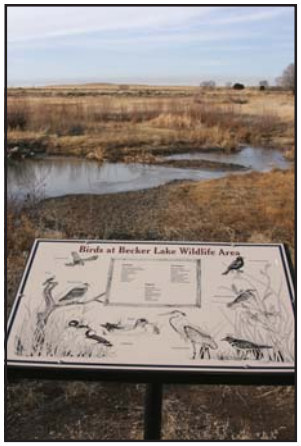
Wildlife Viewing

Wildlife viewing is the fastest growing recreational activity in the United States. According to the U.S. Fish and Wildlife Service Director, H. Dale Hall, "Wildlife related recreation rejuvenates our spirit, connects us with nature and gets us outside pursuing healthy activities." The popularity of this outdoor recreation activity can have significant positive impacts on the local economies of small towns and rural areas. Preliminary data from the *2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* indicate that 71 million Americans spent $43 billion on some form of wildlife viewing in 2006.

Outstanding opportunities for wildlife observation are available at eight Wildlife Viewing Areas within the Little Colorado River Valley. These Wildlife Viewing Areas, which are managed by the Arizona Game and Fish Department, preserve a range of habitat that includes grasslands, woodlands, and riparian areas. A diversity of large and small mammals, birds, and reptiles can be readily

observed at these sites. For example, at Sipe White Mountain Wildlife Area, visitors may observe elk, pronghorn, mule deer, coyotes, and up to seven species of bats. The astute visitor may even hear the howl of the reintroduced Mexican gray wolf or the wailing bugle of an elk.

Exceptional waterfowl habitat has been developed at Allen Severson Wildlife Area. The city of Show Low, in cooperation with Apache-Sitgreaves National Forest and the Arizona Game and Fish Department, became the first community in Arizona, and one of the first in the nation, to create artificial wetlands using wastewater effluent. The 370-acre marsh serves the dual purpose of increasing waterfowl nesting habitat and providing wastewater disposal for the city. In addition to wildlife observation, these viewing areas also provide opportunities for camping and hiking, with some trails leading to prehistoric ruins and petroglyphs.



Signs at Becker Lake Wildlife Area help visitors identify and appreciate the birds that frequent the lake.

The Audubon Society has identified three Important Bird Areas (IBAs) within the proposed National Heritage Area: Blackrock and Nutria Lakes, Anderson Mesa, and the Upper Little Colorado River Watershed. To be identified as an IBA, a site must meet objective, standardized, science-based criteria. In addition to protecting vital avian habitat for species such as the endangered Southwestern Willow Flycatcher, these sites are popular destinations for bird watchers. IBAs can serve as the catalyst that brings people together to protect birds and the diverse habitats they occupy. According to Frank Gill, Senior Ornithologist for the National Audubon Society, "IBAs have the unique power to unite people, communities, and organizations in proactive bird conservation, one place at a time."

Boating and Fishing

Plentiful boat launches and well-stocked reservoirs set the stage for exceptional boating and fishing in the White Mountains. Apache-Sitgreaves National Forest, Fool Hollow Lake Recreation Area, and Lyman Lake State Park offer abundant opportunities to spend time on or near the water. (Lyman Lake State Park has the distinction of being the first recreational state park in Arizona.) Becker Lake, the oldest artificial lake in Arizona, is managed as a quality trout fishery. As such, the lake has special regulations including possession limits, restricted methods of take, motor restrictions, and seasonal closures. The Arizona Game and Fish Department's fish hatchery system stocks more than 90 percent of the brook, brown, cutthroat, and rainbow trout in many lakes in the White Mountains. Although the majority of fish in these lakes are trout, other species such as bass, crappie, northern pike, walleye, and catfish can also be caught.

Anglers have the unique opportunity to fish for Apache trout, a native species that is found nowhere else in the world. After many years of protection and recovery efforts, Apache trout have been restored to much their historic range in the White Mountains. Fishing is now allowed in designated state waters or on the Fort Apache Reservation. This trout species, which was once threatened with extinction, is now an important recreational and economic asset to the state of Arizona.

Fishing is a year around pursuit and ice fishing has quickly gained popularity as a winter recreation activity in Northern Arizona. To accommodate winter anglers, select roads remain open during the winter months allowing access to reservoirs. In

addition, some resorts and local merchants remain open for business during the prime ice fishing months. Nelson Reservoir, a popular ice fishing location, is easily accessible by road. Lakes without road access may be reached by snowmobile or, for the adventurous, with snowshoes.

McGaffey Lake Recreation Area, Ramah Lake, and Quemado Lake Recreation area are popular trout fisheries stocked by the New Mexico Department of Game and Fish. McGaffey Lake, situated at an elevation of 7,600 feet, is a scenic destination for boating and fishing. Ramah Lake, also recognized for its spectacular scenery, is surrounded by some of the most beautiful mesa country in New Mexico. Quemado Lake Recreation Area is a picturesque 130-acre lake bordered by piñon-juniper woodlands and pines. Two boat ramps, two universally accessible fishing piers, eight campgrounds, and seven miles of hiking trails are among the amenities available at Quemado Lake.

Hunting

The diverse habitat within the Little Colorado River Valley supports numerous large and small game species. Hunters can engage in the challenge of harvesting large game animals such as elk, bear, mountain lion, mule deer, pronghorn, and even buffalo. Small game species include cottontail rabbits, tree squirrels, mourning doves, and various waterfowl. Hunters use archery, firearms, muzzle loading rifles, and trapping to harvest wildlife. Hunting is allowed on National Forest lands with appropriate licenses and permits. Raymond Ranch, Becker Lake, and Sipe White Mountain wildlife viewing areas provide additional opportunities for hunting. With permission, hunting is allowed on private land and may also be arranged on Indian Lands in agreement with the Tribal Game & Fish Departments.

Winter Sports

The variable elevation and climate of the Little Colorado River Valley provide recreational opportunities for all seasons—including winter. Higher elevations receive significant snowfall, which creates a winter sport haven for skiing, snowshoeing, snowboarding, skijoring, and sledding. Numerous cross-country skiing and snow play areas are available in both, the Coconino and Apache-Sitgreaves national forests.

Additional opportunities for winter recreation are available through private enterprises. The Flagstaff Nordic Center features more than 40 kilometers of groomed skate/classic ski trails. At Mormon Lake, the largest natural lake in Arizona, the ski touring center grooms over 30 kilometers of trails for novice, intermediate, and advanced skiers. At the Arizona Snowbowl, one of the oldest continually run ski areas in the country, skiers and snowboarders enjoy over 2,300 feet of vertical drop on 32 scenic trails covering 777 acres. This is the only ski slope where skiers and snowboarders can catch a glimpse of the North Rim of the Grand Canyon while hitting the slopes.

Off-highway Vehicle (OHV) Use

Rapidly increasing numbers of recreationists are using OHVs to access and enjoy the outdoors. In 2004, OHV use accounted for between 11 and 12 million visits to national grasslands

Table 3.4. Recreational opportunities on public lands within the proposed Little Colorado River Valley National Heritage Area.

	Camping	Backpacking	Interpretive trails	Hiking	Biking	Horseback riding	Wildlife viewing	Boating	Fishing	Hunting	Winter sports	Off highway vehicle use	Climbing	Archaeological sites
NATIONAL FORESTS														
Apache-Sitgreaves National Forest	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
Cibola National Forest	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦		♦
Coconino National Forest	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦	♦
NATIONAL PARKS & MONUMENTS														
El Morro National Monument	♦		♦	♦			♦							♦
Petrified Forest National Park		♦	♦	♦		♦	♦							♦
Sunset Crater National Monument			♦	♦			♦							
Walnut Canyon National Monument			♦	♦			♦							♦
Wupatki National Monument			♦	♦			♦							♦
STATE PARK LANDS														
Homolovi Ruins State Park	♦		♦	♦			♦							♦
Fool Hollow Lake Recreation Area	♦		♦				♦	♦	♦					
Lyman Lake State Park	♦		♦	♦			♦	♦	♦					♦
Red Rock State Park	♦													♦
ARIZONA GAME & FISH WILDLIFE AREAS														
Allen Severnson Wildlife Area			♦				♦							
Becker Lake Wildlife Area	♦			♦			♦	♦	♦	♦				
Jacques Marsh Wildlife Area							♦							
Lamar Haines Memorial Wildlife Area				♦			♦							
Raymond Ranch Wildlife Area	♦		♦	♦			♦			♦				
Sipe White Mountain Wildlife Area			♦	♦			♦			♦				♦
Wenima Wildlife Area			♦	♦			♦							♦
White Mountains Grassland Wildlife Area			♦	♦			♦							

and forests. OHVs, which include motorized all-terrain vehicles (ATVs) dirt bikes, and snowmobiles, are generally allowed on designated roads, trails, and areas on federal lands. OHV users are responsible for understanding the specific rules and regulations of the lands on which they are recreating. Coconino National Forest manages Cinder Hills OHV Area near Flagstaff specifically for this group of outdoor enthusiasts.

The OHV trails in the White Mountains near the town of Eagar are considered by some to be the best high country trails in Arizona. Saffel Canyon Trail offers spectacular views along the 25-mile round trip trail that passes through piñon-juniper, ponderosa pine,

and mixed conifer vegetation zones. OHV use is not limited by the seasons. After the snow falls, the Sunrise to Big Lake route is open for snowmobile use. This trail traverses mountains and meadows and passes through beautiful coniferous forests.

Climbing

Several rock climbing and bouldering locations exist within the Little Colorado River Valley. Jack's Canyon camping and climbing area, about 30 miles south of Winslow, is situated in a picturesque isolated canyon with steep limestone/sandstone cliffs. Nearly 300 routes offer what some consider some of the best sport climbing in the United States. The Pit, located in a scenic shallow canyon about 15 minutes from Flagstaff, is bordered by ponderosa pines. The Pit features about 100 routes that range from 35 to 80 feet in length and 5.9 through 5.13+ in difficulty. Mentmore Rock climbing area near Gallup has more than 50 bolted top rope climbs and 31 sport climbs. These climbs range in height from 25 to 45 feet and have difficulty levels ranging from 5.0 to 5.13.

Astronomy and Star Gazing

The spectacular dark night skies of the Little Colorado River Valley provide excellent opportunities for star gazing, making the region a desirable location for amateur astronomers. Efforts to maintain dark skies around Flagstaff, the largest municipality within the proposed Area, have been ongoing for decades. In 1958, the Flagstaff City Council passed the world's first lighting ordinance, signifying the start of the dark skies movement. 2008 marks the 50th anniversary of that historic occasion. In 2001, Flagstaff was recognized as the world's first International Dark Sky City.

The city of Flagstaff has a long association with astronomy and is considered one of the premier deep space research sites in the world. The area is home to Lowell Observatory, Braeside Observatory, U.S. Naval Observatory's Flagstaff Station, and the Navy Prototype Optical Interferometer. Lowell Observatory, known for the discovery of Pluto in 1930, holds regular astronomy programs (with indoor and outdoor viewing opportunities) for the public.

Hot Air Ballooning

The Red Rock Balloon Rally in Gallup, New Mexico takes place against the magnificent and vibrant bluffs and canyons of Red Rock State Park. From a show of four balloons in 1981, participation today is by invitation only and limited to 200—and there is a waiting list. This makes the Rally the second-largest balloon festival in the world. Each year during the first weekend of December, balloonists and their chase crews descend on Gallup. Thousands of spectators gather to watch and enjoy the mass ascensions, competitive events, evening balloon glows, Native American dances, and the holiday Christmas parade. Willing spectators can even become participants by joining chase crews, and thereby possibly get a balloon ride out of the deal. But whatever role the spectator takes, the blue sky, red rocks, and two hundred colorful balloons create a photographic paradise.

DISTINCTIVENESS OF THEME

The distinctiveness of the outdoor recreation theme is directly linked to

the outstanding natural and scenic resources of the Little Colorado River Valley. Because the relationship between landscapes and outdoor recreation are so intricately intertwined, the diversity of natural and scenic resources support a vast array of recreational opportunities during all seasons. Collectively, these recreational resources provide outstanding opportunities for recreationists to seek and attain a wide spectrum of desirable experiences and benefits. Large tracts of public land allow individuals and groups easy access to these extraordinary recreational resources.

Clearly, the Little Colorado River Valley includes a multitude of unique resources. Soaring peaks, immense lava fields, colorful concentrations of petrified wood, native Apache trout, the first international dark sky community, and an abundance of archaeological sites contribute to the area's rich natural and cultural history. These places hold significant value at both a local and national level. According to Ibrahim and Cordes, "the outdoors has special meaning, because it is deeply imbedded in our history and culture." For many, outdoor recreation strengthens their affinity for protecting those resources that create the context for meaningful experiences.

RELATED RESOURCES

In addition to the vast array of public lands within the Little Colorado River Valley, local city and county parks contribute to the availability of outdoor recreation opportunities. Navajo County Park, McHood Park on the banks of Clear Creek Reservoir in Winslow, Hidden Cove Golf course in Holbrook, and Woodland Lake Park in Pinetop-Lakeside are excellent examples of local commitment to providing outdoor recreation opportunities and open spaces. Outfitters, guides, and tour companies offer valuable services to both experienced and novice outdoor recreationists. Riding stables near Greer, Pinetop-Lakeside, Show Low, and Flagstaff lead guided trail rides through remarkable landscapes. Trail guides share valuable information about the natural and cultural history of the area, enhancing the outdoor recreation experience. Outfitter and guide services are a particularly valuable resource for visitors from areas outside the Little Colorado River Valley.

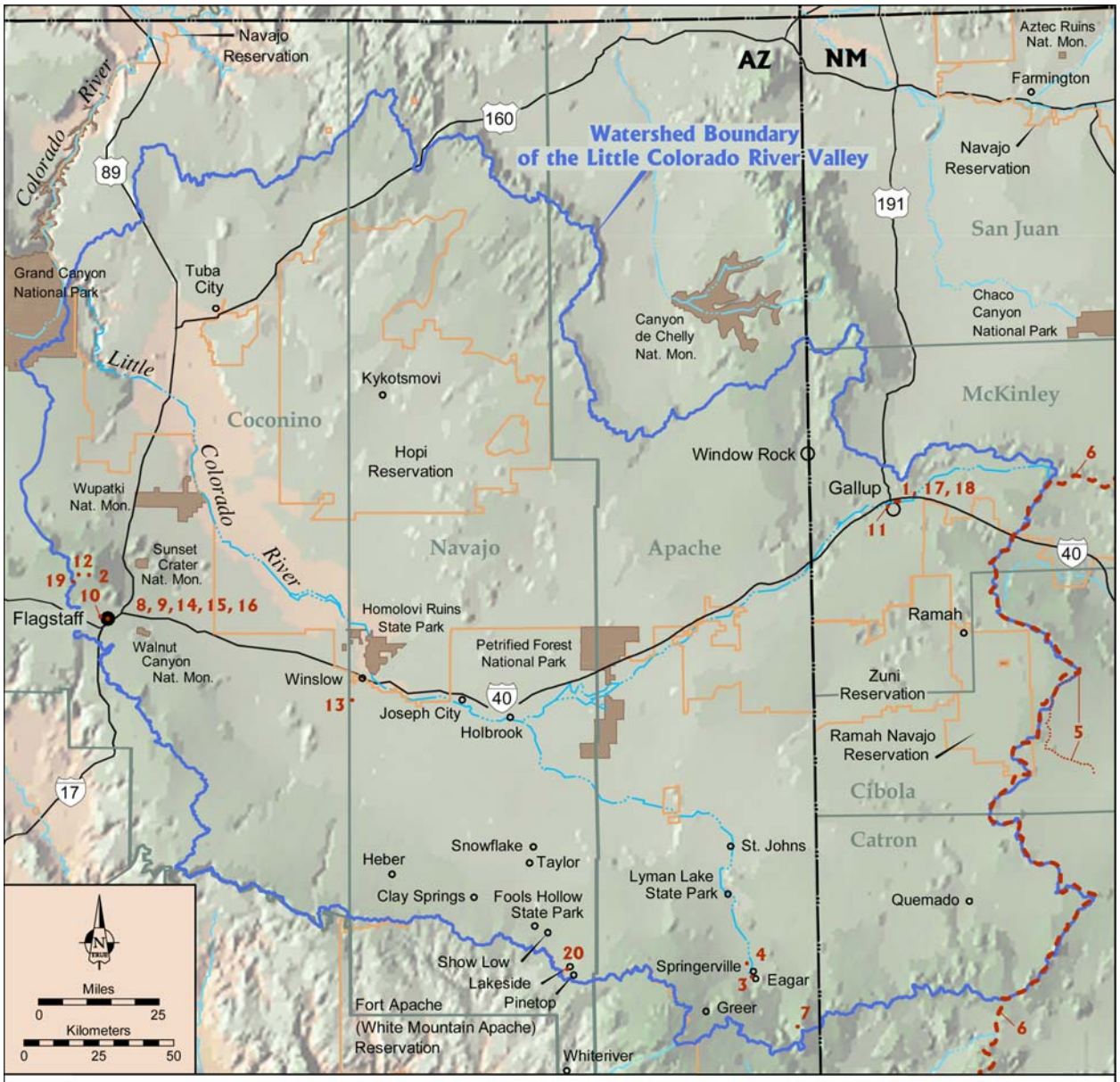
RELATED RESOURCES LIST

- **Adventure Gallup, Gallup:** A non-profit organization established to promote adventure tourism.

- **American Cancer Society's Annual Climb to Conquer Cancer, Flagstaff:** Both a fundraiser and an awareness raiser, thousands of people participate in this annual seven-mile walk up Snowbowl Road on the southwest side of the San Francisco Peaks.

- **Arizona ATV Outlaw Trail Jamboree, Eagar:** A three-day event where beginning and experienced riders have the opportunity to choose from more than twenty guided trail rides. The event also includes an ATV rodeo, a parade, and fireworks.

- **Becker Lake Wildlife Area, Springerville:** This 100-acre lace is part of a more than 600-acre wildlife area owned and managed by the Arizona Game & Fish Department. It features a walking trail, excellent wildlife viewing, and trout fishing.



Outdoor Recreation

1 Adventure Gallup
2 American Cancer Society's Annual Climb
3 Arizona ATV Outlaw Trail Jamboree
4 Becker Lake Wildlife Area
5 Chain of Craters Backcountry Byway
6 Continental Divide Trail
7 Escudilla National Recreation Trail
8 Fischer Canyon
9 Flagstaff Biking Organization
10 Flagstaff Festival of Science
11 Gallup Trails 2010
12 Hart Prairie
13 McHood Park and Clear Creek Canyon
14 Northern Arizona Audubon Society
15 Northern Arizona Trail Runners
16 Northern Arizona University hiking club
17 Red Rock Balloon Rally
18 Red Rock State Park
19 Winterfest Flagstaff
20 Woodland Wild Country Expo

- **Chain of Craters Backcountry Byway, Cibola County:** One terminus of this Bureau of Land Management designated Backcountry Byway lies just inside the Little Colorado River watershed and leads travelers through incredible volcanic landscape.

- **Continental Divide Trail:** The eastern boundary of the proposed Little Colorado River Watershed is

the natural geologic feature of the Continental Divide. The Continental Divide Trail was officially designated by the Congressional Oversight Committee of the National Trails System in 1978. The trail occurs in a corridor of up to 50 miles to one side or the other of the actual Continental Divide and El Morro National Monument and Pie Town are specifically mentioned as sites of interest along the route.

- **Escudilla National Recreation Trail, Apache-Sitgreaves National Forest:** A three-mile trail up Arizona's third tallest peak takes hikers through aspen, spruce, and fir forests and mountain meadows before opening to stunning panoramic views of the landscape. From the fire tower on top of the mountain, people can see the dramatic changes in the land as it rises from dry desert through deep canyons to mountain peaks. On a clear day, the San Francisco Peaks, 200 miles to the northwest, are visible.

- **Fischer Canyon, Flagstaff:** Fischer Canyon is an easily accessible and popular place for hiking as well as bouldering and climbing.

- **Flagstaff Biking Organization:** A local nonprofit dedicated to increasing the use of bicycles for recreation and transportation. The group sponsors bike safety classes, an annual Bike to Work Week, special bike day-trips for kids, weekly road rides, has a trained trail crew that assists the Forest Service with trail maintenance, and is involved in many other bicycle-related endeavors.

- **Flagstaff Festival of Science, Flagstaff:** Brings together multiple resources to organize fascinating lectures, hikes, and hands-on activities. Many nearby natural and cultural attractions offer free admissions during the festival.

- **Gallup Trails 2010, Gallup:** This is a vision and a plan to develop a comprehensive multi-use trail system in and around the town of Gallup. Two mountain biking groups and a running crew meet regularly to participate in biking and running activities.

- **Hart Prairie (Nature Conservancy interpretive hikes):** Free, guided nature walks and hikes aid in peoples' understanding and appreciation of the geological and ecological features of the San Francisco Peaks.

- **McHood Park and Clear Creek Canyon, Winslow:** Boat launches in McHood Park allow for easy access to Clear Creek Canyon. The canyon is popular with canoers, boaters, sunbathers, and those who like to climb, and dive from, its impressive rock walls. The canyon also has a few petroglyph sites visible from the water.

- **Northern Arizona Audubon Society, Flagstaff:** Members lead regular bird walks at The Arboretum at Flagstaff and other locations.

- **Northern Arizona Trail Runners Association, Flagstaff:** An organization that promotes of-road running on forest trails and sponsors other running events for people of all abilities.

- **Northern Arizona University (NAU) hiking club, Flagstaff:** A free, student organization that seeks to bring students together to experience the outdoors.

- **Red Rock Balloon Rally:** New Mexico is famous for its great hot air ballooning climate, and Gallup is no exception. Since 1981, the city has hosted the Red Rock Balloon Rally which features 200 balloons by invitation only and Native American arts and crafts as prizes for the various competitions.

- **Red Rock State Park, Gallup:** Known for its stunning sandstone cliffs, canyons, and buttes, Red Rock State Park is a hiker's and a mountain biker's paradise. It has also hosted the Inter-Tribal Indian Ceremonial every August since 1975 and provides a picturesque backdrop to the Red Rock Balloon Rally every December.

- **Woodland Wild Country Expo, Pinetop-Lakeside:** Fly fishing demonstrations, star gazing, and information about hiking in the White Mountains.

- **Winterfest Flagstaff, Flagstaff:** An annual event for more than 20 years, the festival features nearly 100 events including ski competitions, sled dog races, and other winter activities.

PRIMARY REFERENCES

Apache-Sitgreaves National Forest
2008 <http://www.fs.fed.us/r3/asnf/>

Arizona Game and Fish Department
2008 <http://www.azgfd.gov/>

Arizona Office of Tourism, Map
2003 *Arizona Grand Canyon State Recreation and Historic Sites: Campgrounds and Facilities on State, Federal, and Tribal Lands*.

Arizona Snowbowl
2008 <http://www.arizonasnowbowl.com/>

Arizona Trail
2008 <http://www.aztrail.org/>

Audubon.
Important Bird Area (IBA) <http://www.audubon.org/bird/iba/>

Benchmark Maps
1999 *New Mexico Road and Recreation Atlas*.

2004 *Arizona Road and Recreation Atlas*.

Cibola National Forest
2008 <http://www.fs.fed.us/r3/cibola/>

Coconino National Forest
2008 <http://www.fs.fed.us/r3/coconino/>

Flagstaff Dark Skies Coalition
2008 <http://www.flagstaffdarkskies.org/>

Ibrahim, H., and K. A. Cordes
1993 *Outdoor Recreation*. Wm. C. Brown Communications, Dubuque, Iowa.

Outdoor Industry Foundation
2006 *The Active Outdoor Recreation Economy*. <OUTDOORINDUSTRY FOUNDATION.ORG>

Pigram, J. J., and J. M. Jenkins
1999 *Outdoor Recreation Management*. Routledge, New York.

U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, U.S. Census Bureau.
2006 *2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation: National Overview*.

Wilderness Act of 1964

chapter 4

evaluation according to national heritage area criteria

The National Park Service has set forth a number of criteria to evaluate proposed National Heritage Areas. One document, *Critical Steps and Criteria for becoming a National Heritage Area* describes four Critical Steps and ten Suggested Criteria. Furthermore, Appendix 1 of the *National Heritage Area Feasibility Study Guidelines* identifies ten types of resource assemblages that contribute to the greater understanding, preservation, and celebration of the Nation's heritage. This chapter evaluates the Little Colorado River Valley in accordance with the criteria contained in these two documents developed by the National Park Service.

CRITICAL STEPS AND CRITERIA FOR BECOMING A NATIONAL HERITAGE AREA

Critical Steps

The *Critical Steps and Criteria for becoming a National Heritage Area* document identifies four Critical Steps that must be completed before Congressional consideration and designation of a National Heritage Area.

(1) Completion of a suitability/ feasibility study
(2) Public involvement in the suitability/feasibility study
(3) Demonstration of widespread public support among heritage area residents for the proposed designation
(4) Commitment to the proposal from key constituents, which may include governments, industry, and private, non-profit organizations, in addition to area residents

The proposed Little Colorado River Valley National Heritage Area achieved the following with regards to these four Critical Steps.

(1) Completion of a Suitability/Feasibility Study

This document is the feasibility study for the proposed Little Colorado River Valley National Heritage Area. It contains all of the applicable

information indicated in the National Park Service's *National Heritage Area Feasibility Study Guidelines.*

(2) Public Involvement in the Suitability/ Feasibility Study

The Little Colorado River Valley National Heritage Area feasibility study process involved the public throughout its development. The initial ideas for the proposed Area developed out of the expressed needs of communities along the river to effectively protect and promote different resources, primarily in Springerville and Snowflake. The Center for Desert Archaeology had worked with the town government and volunteers of Springerville for a number of years and was invited to a preliminary scoping meeting regarding petroglyph sites in Snowflake. The Center for Desert Archaeology also had working relationships with staff and Hopi consultants at Homol'ovi Ruins State Park. Once the National Heritage Area idea was proposed as one option to address these community needs and a map was devised, the Center for Desert Archaeology conferred with these original partners. They expressed enthusiasm for the idea and then the process of concerted public outreach throughout the watershed began.

A part-time Center for Desert Archaeology staff member conducted the outreach from the fall of 2004 through the summer of 2005, making 13 public presentations during that time. A total of 7 newspaper articles during the same time also relayed the development of the proposed Area to a wider audience. Significant progress was delayed until the Center for Desert Archaeology received an Arizona State Parks Heritage Fund Grant in the spring of 2006 to fund a two-year, full-time position for the feasibility study process. The new Heritage Programs Coordinator began giving public presentations and conducting community Working Group meetings by November of that year. Since that time, more than 50 public presentations have been given and more than 140 people attended Working Group meetings. Additionally, the proposed Little Colorado River Valley National Heritage Area was the topic of information booths at eight community events since October 2006 and the topic of no less than 22 newspaper articles since July 2006. The Heritage Programs Coordinator also sent monthly updates via email or mail to anyone who requested. People could also sign themselves up to receive Updates by visiting the proposed Little Colorado River Valley National Heritage Area pages on the Center for Desert Archaeology website. By February 2008, the number of people receiving Updates exceeded 650. All past Updates, as well as past formal press releases to media outlets, were kept accessible on the website for continued public access. For more information and detailed listing of public outreach efforts, see Chapter 1.

The heart of the feasibility study itself, the heritage themes, developed directly from public input. A detailed description of this process appears in Chapter 3. Likewise, the General Guidelines for the proposed National Heritage Area were also a direct result of the visions and realities expressed by participants during the Working Group meetings. This process is explained at length in Chapter 2.

The whole feasibility study document also underwent public review and received XXX comments during the comment period. All comments are included in Appendix X. People could

make comments during one of six Working Group meetings, write and mail in comments, or submit comments online.

3. Demonstration of Widespread Public Support Among Heritage Area Residents for the Proposed Designation

The proposed Little Colorado River Valley National Heritage Area has received 57 letters or resolutions of support. The majority of these letters (approximately 50) were written by a variety of individuals, independent businesses owners, large landowners, private non-profit organizations, and local governments while the others have been written by educational institutions and state, federal, or tribal agencies and departments. Additionally, approximately 150 people gave a total of more than 400 hours of their time to attend Working Group meetings and guide the development of the future Area.

4. Commitment to the Proposal from Key Constituents, which may Include Governments, Industry, and Private, Non-profit Organizations in Addition to Local Residents

In addition to formal support given by the people mentioned in Critical Step Number Three, a number of state, federal, and tribal governments and agencies also gave their support for the proposed Area. The Petrified Forest National Park agreed at the onset of the feasibility study to act as the lead federal agent for the proposed Little Colorado River Valley National Heritage Area.

SUGGESTED CRITERIA

The *Critical Steps and Criteria for becoming a National Heritage Area* document also lists ten Suggested Criteria to ascertain whether a proposed region qualifies for National Heritage Area status.

(1) The area has an assemblage of natural, historic, or cultural resources that together represent distinctive aspects of American heritage worthy of recognition, conservation, interpretation, and continuing use, and are best managed as such an assemblage through partnerships among public and private entities, and by combining diverse and sometimes noncontiguous resources and active communities

(2) The area reflects traditions, customs, beliefs, and folk life that are a valuable part of the national story

(3) The area provides outstanding opportunities to conserve natural, cultural, historic, and/or scenic features

(4) The area provides outstanding recreational and educational opportunities

(5) Resources that are important to the identified theme or themes of the area retain a degree of integrity capable of supporting interpretation

(6) Residents, business interests, non-profit organizations, and governments within the proposed area that are involved in the planning, have developed a conceptual financial plan that outlines the roles for all participants including the federal government, and have demonstrated support for designation of the area

(7) The proposed management entity and units of government supporting the designation are willing to commit to work in

partnership to develop the heritage area

(8) The proposal is consistent with continued economic activity in the area

(9) A conceptual boundary map is supported by the public

(10) The management entity proposed to plan and implement the project is described

The proposed Little Colorado River Valley fulfills the Suggested Criteria in the following ways.

The area has an assemblage of natural, historic, or cultural resources that together represent distinctive aspects of American heritage worthy of recognition, conservation, interpretation, and continuing use, and are best managed as such an assemblage through partnerships among public and private entities, and by combining diverse and sometimes noncontiguous resources and active communities.

The seven heritage themes of Chapter 3 describe in detail the natural, historic, and cultural resources found within the Little Colorado River Valley. Each of those chapters also contains a listing of related resources in the region that reflect that particular theme. The related resource lists, though lengthy, are not absolutely comprehensive due to issues of cultural sensitivity regarding many Native American sites and traditions and also due to the impossibility of documenting every possible resource in a living and ever-changing landscape. Still, the lists reflect the wealth of resources for any of the heritage themes that can be found throughout the watershed. Often, one resource reflects a number of themes. For example, the Hubbell Trading Post National Historic Site in Ganado reflects the theme of Living from the Land due to recent restoration of native gardens and an historic orchard, the theme of Expressions of Art and Life due to its current and historic role as a trading post and current Native American Art Auctions, as well as the theme of Native Nations, again due to its role as a trading post and auction site and due to its location in the Navajo Nation. Similarly, the 26 Bar Ranch in Eagar reflects the Living from the Land theme because of its history as John Wayne's ranch, but it can also reflect the Native Nations and Archaeology themes because it is now owned and operated by the Hopi Tribe and contains petroglyphs within its boundaries. El Morro National Monument reflects the Sacred and Enchanted Landscapes theme because of its striking geology and importance in Native culture, the Trails, Roads, and Rails of the West theme because of its importance as a reliable water source for Native, Spanish, and American travelers and explorers and due to the petroglyphs and inscriptions they left, and the Native Nations and Archaeology themes because of the pueblo ruins located on top of the bluff. Countless other individual sites reflect multiple associations across time and cultures.

These resources are intricately related to each other. El Morro National Monument relates directly to the development of the Beale Wagon Road, ATSF railroad, Route 66, and modern-day I-40. The natural resource of the vast forests ringing the watershed fueled the development of the railroad and the founding of several towns. Ranchlands continue to provide a lifestyle for individual families, but also contribute to the open character of the landscape so intricately associated with the Southwest and, if managed

with this intent in mind, provide habitat for native and wild plants and animals. Because these resources cross multiple political and jurisdictional boundaries—state, federal, tribal, private, and local government—and hold significance to any number of individuals or cultures that may or may not be the actual owners of such resources, a willing partnership approach is a most appropriate way to address future planning for such resources.

The heritage and resources of the Little Colorado region are worthy of recognition, conservation, interpretation and continuing use because they define critical moments in the development of the United States as a whole and in the development of particular cultures and lifestyles of people whose lives add to the rich diversity of the Nation.

The area reflects traditions, customs, beliefs, and folk life that are a valuable part of the national story.

The Little Colorado River Valley has been home to the ancestors of modern-day Hopi and Zuni for a minimum of thousands of years. The development of the ancestral cultures into the distinct Hopi and Zuni cultures of today occurred more than 1,000 years ago. Generally speaking, the Hopi and Zuni have been living in the same basic vicinity as they are today for approximately 1,000 years. Few other cultural groups in the present-day United States can claim such a long and unbroken connection to a particular landscape. The Navajo Nation, approximately half of which lies within the Little Colorado River watershed, is the largest Native Nation in the United States both in terms of size of population and size of reservation. All three tribes are nationally and internationally renowned for their arts and crafts traditions and in general for their unique ways of life.

Ranching and the cowboy lifestyle is a large part of the national identity, even for those who have never ridden a horse, roped a cow, walked with a flock of sheep to a summer mountain pasture, or awakened before dawn to help in the birthing of a calf. Few images speak to the American soul more than that of a lone cowboy—in a Stetson hat, weathered jeans, pearl-snapped shirt, fringed chaps, silk neckerchief, and leather gloves—riding his way across an open range. Ranching is not just a part of the Little Colorado's past, it is a continuing part of it present and future. Ranchers and other agriculturalists, both Native and non-Native, are fusing traditional practices with modern twists to respond to ever-changing economic, social, and ecological conditions. They are simultaneously keeping a vibrant tradition alive while adding another chapter to its long and colorful history.

The area provides outstanding opportunities to conserve natural, cultural, historic, and/or scenic features.

Despite the region's rate of population growth—Arizona as a whole grew greater than 30 percent over each of the last four decades and New Mexico has grown an average of about 20 percent over each of the last three decades—the Little Colorado region has been less affected than other parts of the states. The Little Colorado region remains primarily rural and therefore the potential to retain the natural and scenic quality of the area is high. Culturally, the region contains a number of unique lifestyles that are

rooted in deep tradition and yet adjusting to modern realities. Numerous natural and cultural conservation efforts are at various stages of development throughout the proposed Little Colorado River Valley National Heritage Area. The following is a partial listing and brief description of some of these initiatives. Additional initiatives were also previously described Chapter 1. These are but a small number of existing examples of the possibility that exists within the watershed as a whole.

- **Babbitt Ranches:** In 2001, Babbitt Ranches placed more than 34,000 acres of private land into a conservation easement to preclude any future mining, subdividing, or development of the property. Babbitt Ranches continues to look for additional easements or other conservation options for some of their range that is not currently protected.

- **Billy Creek Restoration:** The Town of Pinetop-Lakeside enjoys numerous mountain streams and lakes that provide natural beauty, recreational opportunities, and critical water resources and habitat. Working with a private stream restoration firm, the Town secured an Arizona Water Protection Fund grant in late 2007 for the first phase of restoration along Billy Creek. The area is zoned open space and will retain its natural character while public access will be facilitated in the future through trailheads and picnic areas.

- **Diablo Trust:** This organization, formed in 1993, is a partnership of two family-owned ranches, each with a history of several generations in Arizona. The Diablo Trust is committed to the dynamic blend of viable cattle ranching, wildlife habitat, ecological conservation, public engagement, and innovative solutions on their lands in eastern Coconino County.

- **Flagstaff, Gallup, and Springerville:** All three have plans and committees working toward the preservation of open space in their respective communities.

- **Homol'ovi Ruins State Park:** Homol'ovi Ruins State Park contains four major pueblo sites, built by ancestors of modern-day Hopi, that number more than XXX rooms each as well as smaller pueblos. Through a Memorandum of Understanding, the Hopi Tribe has taken an increasing role in recent years in developing interpretive plans and future management goals for the Park. Hopi cultural events, lectures, and youth program visits to the Park have increased dramatically under the guidance of Hopi liaisons.

- **Hubbell Trading Post National Historic Site:** There is ongoing preservation of the trading post structures. Recent initiatives have been undertaken to revitalize the larger cultural landscape of the trading post by re-introducing agriculture and heritage orchard species which were present during the time of the Hubbell family's homestead as well as returning the Pueblo Colorado wash which runs through the site to its condition before the invasion of exotic species along its banks.

- **Natwani Coalition:** This Hopi organization promotes the return to traditional Hopi methods of farming and traditional varieties of crops. The Coalition works with school-aged children to teach them agricultural techniques and has also restored

traditional farming sites along springs on the reservation.

- **Picture Canyon:** Located in the southeast side of Flagstaff, Picture Canyon earned its name from the very high concentration of petroglyphs found on its rock boulders and currently lies on state-owned land. Coconino County Board of Supervisors and volunteers have been working for a number of years to remove invasive plant species and are also exploring ways to ensure protection of the site into the future.

- **Show Low Bluff archaeological park:** Show Low Bluff is a private housing development that announced in March 2008 that it will set aside 46 acres for the preservation of approximately 1,000 petroglyphs in the subdivision. Show Low Bluff will make a privately owned park that is publically accessible out of the area and has already begun to work with the Arizona Site Steward Program to develop a special group of monitors for the site.

- **Town of Springerville:** Springerville became a Preserve America community in 2006. It restored its Madonna of the Trail statue in the same year (one of only twelve in the country placed by the Daughters of the American Revolution) and the town is currently working on the restoration of its historic school building.

- **Zuni:** The murals of Our Lady of Guadalupe, a 17th century Spanish mission, are in need of repair due to deterioration of the church walls. Partial support for the restoration has been received from the New Mexico legislature and the Save America's Treasures fund of the National Park Service.

The area provides outstanding recreational and educational opportunities.

The Outdoor Recreation section of Chapter 3 describes in detail the wealth and variety of outdoor recreation opportunities the Little Colorado region offers residents and visitors alike. The experience of outdoor recreation, no matter what the actual activity, cannot be separated from the landscape in which it takes place. The incredible diversity and unmatched character of Little Colorado geology and ecology makes outdoor recreation an exciting, ever-changing experience. That, added to the vast amount of public lands, means that outdoor recreation opportunities are plentiful and open to all.

Quality educational opportunities regarding natural and cultural heritage go hand-in-hand with having an intact landscape. Because the vast majority of the Little Colorado region has not been urbanized, the geological and ecological stories are writ large and obvious across the landscape. The edge of a lava flow from a shield volcano near Springerville is easily identifiable. The natural route of ancient passes through mountain ranges is easily seen from the top of El Morro National Monument. Ribbons of green vegetation, able to be seen at considerable distances because few large structures or other built environments obscure the view, announce the flow and role of water in basically arid country. Natural and cultural heritage education is emphasized at many sites and locations throughout the watershed and

numerous schools and non-profit organizations promote natural and cultural learning in a more general sense. The Colorado Plateau Studies Program at Coconino Community College (CCC) and the Sustainable Living Series of classes at both CCC and Northland Pioneer College are two such examples, the Elderhostel Program at Northern Arizona University is another. The STAR School in Flagstaff and the St. Michael's Association for Special Education serve younger learners with a curriculum based in regional ecology and culture. The Flagstaff Chapter of the Arizona Native Plant Society sponsors lectures and plant walks during the warmer months and the Plateau Sciences Society in Gallup, in addition to providing a wide variety of educational opportunities to its members, holds a public Native Plant Sale every spring and promotes the knowledge and use of native plants in landscaping. The Arizona Ethnobotanical Research Association in Flagstaff studies, documents, and promotes the use traditional plants and conducts periodic field schools that bring students in contact with Native American elders as teachers. The Museum of Northern Arizona's Ventures Program takes participants on multi-day trips led by expert scientists, writers, artists, and other guides. Numerous other educational programs sponsored by schools, local historical societies, museums, the National Park Service and Forest Service, many other organizations add to the educational opportunities available, and to the potential for more coordinated, comprehensive, and diverse learning experiences. National Heritage Area designation could facilitate the creative networking and resource sharing that would enhance the many efforts that already exist.

Resources that are important to the identified theme or themes of the area retain a degree of integrity capable of supporting interpretation.

Many of the sites discussed in the heritage theme chapters and listed in each chapter's related resources section enjoy previous special designations from the national or state level such as National Monuments, state parks and trails, scenic byways, or other similar designations. Additionally, all of the National Register sites that occur within the watershed, most of which are specifically mentioned in the heritage theme chapters, are listed in Chapter 5, Supporting Resources. All of the sites in the related resource sections of the heritage theme chapters were suggested by Working Group participants, showing that the resources have a certain degree of quality and public awareness and are perceived positively by the community.

Residents, business interests, non-profit organizations, and governments within the proposed area are involved in the planning, have developed a conceptual financial plan that outlines the roles for all participants including the federal government, and have demonstrated support for designation of the area.

The extensive public involvement in the development of the proposed Little Colorado River Valley National Heritage Area thus far is detailed in earlier chapters of this feasibility study. Chapter 1 gives a complete listing of all public presentations, information booth venues, newspaper articles, public Working Group meeting dates, an explanation of the monthly Updates, and a listing of all 57 formal letters or

resolutions of support received. Additionally, Appendix X includes copies of each letter or resolution. These letters and resolutions demonstrate support from local businesses, individuals, non-profits, local and tribal governments, state, tribal, and federal agencies, land owners, and educational institutions. Chapter 2 describes how public input shaped the development of the General Guidelines for the proposed Area and Chapter 3 explains how public input led directly to the seven heritage themes included in this study. Public involvement is also summarized in response to the Critical Steps listed at the beginning of this chapter. A conceptual financial plan appears in Chapter 2.

The proposed management entity and units of government supporting the designation are willing to commit to working in partnership to develop the heritage area.

Local government officials and staff have been directly involved in facilitating resolutions of support for the proposed Area. Also, many such individuals have given their time to attend Working Group meetings or lend their assistance in contacting additional potential partners for the project. The Town of Pinetop-Lakeside and the City of Holbrook allowed the use of their council chambers to conduct Working Group meetings which were attended by people from many surrounding communities. In some cases, Working Group meeting locations alternated between two communities in a larger sub-region, but government officials or staff were committed to attending the meeting irrespective of the specific location.

The proposal is consistent with continued economic activity in the area.

As Chapter 6 explains, tourism already is a significant portion of revenues for most communities in the Little Colorado River watershed. As Chapter 6 also explains, tourism as an industry is projected to continue its steady growth for the next several decades. Tourism trend studies show that heritage tourists—those keenly interested in learning about and experiencing the true character of a particular place—will comprise ever increasing percentage of the total tourism market. National Heritage Area designation, therefore, will only serve to emphasize the Little Colorado River watershed as a region where distinctiveness of place is vibrant, diverse, and recognizable. Heritage tourism promotion can contribute to the economy in a variety of ways: it can attract visitors from outside the area; it can result in visitors staying longer in the area; and it can attract local residents to travel within their own region, thus keeping their leisure dollars in the general area.

Tourism is not the only manner in which the designation can enhance economic activity. Many current National Heritage Areas place considerable focus on downtown and local economy revitalization. The Delaware and Lehigh National Heritage Corridor Market Towns Initiative, the Path of Progress National Heritage Route's Progress Fund, and Wheeling National Heritage Area's Adaptive Reuse Studies are good examples. Natural areas and pre-historic or historic site restoration provide jobs as would additional or increased educational programming.

A conceptual boundary map is supported by the public.

The Center for Desert Archaeology received enthusiasm for the proposed Little Colorado River Valley National Heritage Area with the boundaries as the river's watershed at the very beginning of the process in 2004. Since that time, 57 individuals and organizations of all types have given support for the proposed Area with the original boundaries.

In the winter of 2007-08, some individuals and organizations began to express concern that the proposed Area was simply too large. Concerns included potential future administrative problems with an Area of this size, the worry that the financial and other resources a National Heritage Area could bring to the region would be too diluted to be effective, and that "locking up" this much acreage was in general a frightful concept because of fears of additional regulations or infringement on private property rights.

In January 2008, the Center for Desert Archaeology developed an alternative boundary based on the comments received by those concerned with the size and in respect to the regions that had shown the most active support up to that time. (This alternative map appears as Appendix X.) Briefly, the alternative boundaries eliminated Catron County and most of Coconino County except for the portion that is part of the Hopi Reservation and the Tuba City and Birdsprings Chapters of the Navajo Reservation. Trying to respect natural and cultural realities, the Birdsprings Chapter was included due to the fact that the Little Colorado River runs through the Chapter and that half of the chapter lies within Navajo County. The parts of the Hopi Reservation falling inside of Coconino County were also included so as not to artificially divide the reservation. Likewise, the villages of Upper and Lower Moenkopi, although occurring within Coconino County and separated from the main Hopi Reservation, are nonetheless Hopi tribal lands and it was felt they should be included along with the rest of the reservation. Tuba City Chapter was also included due to its proximity and shared history with the villages of Moenkopi. The Center then asked a variety of people who were familiar with the project for their input regarding the alternative boundary. These individuals lived and worked across the watershed: two from Coconino County, four from Navajo County, one from Apache County, one from McKinley County, and one who worked on the Navajo Reservation. The responses varied slightly, but the general consensus was that eliminating Coconino County would be detrimental to the proposed Area as a whole due to the amount of natural and cultural resources it contains that are connected to the rest of the region.

Concerning potential future administrative problems, the proposed Area is large and it is recognized that its administration will present unique challenges that smaller Areas may not experience. At 26,000+ square miles, the proposed Area would be the second largest of the 37 currently-designated National Heritage Areas (Tennessee Civil War National Heritage Area is the largest at 41,143 square miles), although it would be only marginally bigger than the third-largest Area (Freedom's Frontier National Heritage Area at 25,547 square miles). Distance is certainly a factor, although because of the rural and open character of the landscape, the number of people and political entities with which to coordinate is not

greater than in Areas with denser populations and denser concentrations of cities and towns. Approaches to minimize the problems associated with distance are addressed in a preliminary fashion in Chapter 2 when the management entity is described.

The worry that financial and other resources will be too diluted to be effective is also related to the size of the proposed Area. The alternative map, even though it would have reduced the proposed Area by approximately 8,000 square miles, would not have reduced the size enough to significantly alter the dollar-to-acre ratio that people concerned with this worry often cite. Many of those concerned with the size look to Yuma Crossing National Heritage Area as an example, which is the smallest of all 37 National Heritage Areas. Yuma Crossing has facilitated positive changes for the Yuma community, however it is atypical of the size of most National Heritage Areas.

Other concerns about the proposed Little Colorado River Valley National Heritage Area center around the fear of land being "locked up" or subject to additional regulation or infringement of private property rights. The Area is perceived by some as having the power or authority to change zoning ordinances, public logging permits, and other land management regulations. As National Heritage Areas are non-regulatory, the designation, by law, cannot interfere with private property rights or future development of any kind on public or private lands. An incident occurred in the Yuma Crossing National Heritage Area in 2004 in which a *city* employee of Yuma, not an employee of the Yuma Crossing National Heritage Area, acted outside of his or her authority and improperly tried to use the designation as a reason to deny a landowner the right to erect a billboard. National Heritage Area staff worked quickly to have the City of Yuma reverse its inappropriate action, however, the incident caused much anger and fear among private property owners and ultimately resulted in the reduction in size of Yuma Crossing. This incident has caused some private property owners throughout the Little Colorado River watershed to approach the idea of a proposed National Heritage Area with caution.

The management entity proposed to plan and implement the project is described.

The proposed management entity is described at length in Chapter 2. Chapter 2 also contains a conceptual financial plan to serve as a starting point for the new management entity.

NATIONAL HERITAGE AREAS FEASIBILITY STUDY GUIDELINES, APPENDIX 1: EXAMPLES OF NATIONALLY DISTINCTIVE LANDSCAPES

The National Park Service developed a comprehensive set of guidelines for National Heritage Area feasibility studies. Appendix 1 of this document lists ten different types of resource assemblages that indicate a region of national distinction. Appendix 1 describes nationally distinctive landscapes as:

> *…places that contain important regional and national stories that, together with their associated natural and/or cultural resources, enable the American people to understand, preserve and celebrate key components of the multi-faceted character of the Nation's heritage. The landscapes are often*

places that represent and contain identifiable assemblages of resources with integrity associated with one or more of the following:

1. *important historical periods of the Nation and its people;*
2. *major events, persons and groups that contributed substantively to the Nation's history, customs, beliefs, and folklore;*
3. *distinctive cultures and cultural mores;*
4. *major industries and technological, business and manufacturing innovations/ practices, labor movements and labor advancements that contributed substantively to the economic growth of the Nation and the well-being of its people;*
5. *transportation innovations and routes that played central roles in important military actions, settlement, migration, and commerce;*
6. *social movements that substantively influenced past and present day society;*
7. *American art, crafts, literature and music;*
8. *distinctive architecture and architectural periods and movements;*
9. *major scientific discoveries and advancements; and*
10. *other comparable representations that together with their associated resources substantively contributed to the Nation's heritage.*

The proposed Little Colorado River Valley National Heritage Area meets these ten criteria. In-depth descriptions of the region's contributions to the Nation's heritage are given throughout the heritage theme chapters and this entire study, but brief accounts tailored to each of the ten points of Appendix 1 are given here.

Important Historical Periods of the Nation and Its People

The entire Little Colorado River watershed was ceded to the United States in the 1848 Treaty of Guadalupe Hidalgo following the Mexican American War. This cession consisted of the entire modern-day states of California, Nevada, and Utah, significant portions of Arizona, New Mexico, and Colorado, and a southwestern strip of Wyoming. The cession equals roughly 1/6 of the total land area of the present-day United States. Nearly 300 years before this cession, the region witnessed some of the first Spanish explorers to travel into what is now the American Southwest and parts of the western Plains states.

Before the Spanish, Native tribes, some of whom are now entering their second millennium in their villages, established the Little Colorado as their homeland. Before these lasting villages were established, ancestors of modern-day tribes also lived and migrated through the Little Colorado region. After the cession, the Little Colorado region played a significant role as the nation moved westward. It holds one of the major east-west corridors that has been used, and is still used, by rail and road alike to link the two sides of the continent together and to the interior of the country.

Major Events, Persons, and Groups that Contributed Substantively to the Nation's History, Customs, Beliefs, and Folklore

The ranching history of the Little Colorado embodies the essence of what

is popularly thought of as the American West and the image of the American cowboy on the open range. The Hashknife Ranch, in the heart of the Little Colorado River Valley, was once the third largest ranch in all of North America.

The Atchison, Topeka & Santa Fe Railroad also contributed significantly to the national impression of the Southwest. Through its advertisements, train décor, tours, sponsored artists, and architecture, ATSF both introduced the rest of the country to the Southwest and simultaneously shaped what they saw and experienced.

Distinctive Cultures and Cultural Mores

The Little Colorado River watershed is home to three Indian Reservations, including the largest reservation in the United States (Navajo). All three tribes, Navajo, Hopi, and Zuni, are known for their high degree of traditionalism in comparison to many other tribes across the country. Traditional religious beliefs and observances, and distinctive languages, foods, arts, music, dances, and economic practices are still in place on the reservations and in varying degrees with tribal members who live off the reservations in surrounding communities.

The Little Colorado region is also home to a significant number of Mormons whose differences in beliefs forced their relocation in the mid-19th century from the middle sections of the United States to the then-Western frontier lands. Mormon migration and settlement in Arizona and western New Mexico was a direct result of church teachings and a desire to spread the religion over both American continents.

Major Industries and Technological, Business, and Manufacturing Innovations/Practices, Labor Movements, and Labor Advancements that Contributed Substantively to the Economic Growth of the Nation and the Well-being of Its People

The logging, cattle, mining, and railroad industries are inextricably linked in the Little Colorado region and are also inextricably linked to the prosperity of the nation as a whole. Railroads provided for efficient movement of people and goods from one end of the country to another, and everywhere in between, at a scale unprecedented in previous eras. Railroads carried lumber, mining products, and food to distant markets (often in the east) while the lumber, mining products, and agriculture industries literally built the railroad and fed its workers. Beyond material goods, the railroad also transported people making leisure travel or travel for business more feasible. The impact of the railroad and related Western industries on the entire country is hard to overstate.

Transportation Innovations and Routes that Played Central Roles in Important Military Actions, Settlement, Migration, and Commerce

The Little Colorado region has witnessed thousands of years of migrations by people whose descendents still live in the area today. Later Mormon migrations and the economic and social impact of the railroad have already been discussed in Numbers 3 and 4. Route 66 added another major layer to the history of movement and settlement along its

notorious east-west corridor, and a whole new style of commerce oriented toward the new invention of the automobile. From the Dust Bowl migrations out of the central Plains to the post-WWII era of prosperity to the 21st century's focus on places of unique character, Route 66 has held the promise of discovery, freedom, adventure, and a distinctly American way of both loosing oneself and finding oneself all at the same time. Route 66 was specifically designed to stir economic growth in the rural communities it touched. It certainly succeeded in that goal, and also succeeded in stirring the hearts and souls of generations of Americans.

Social Movements that Substantively Influenced Past and Present Day Society

The mining and logging camps of the Little Colorado did experience worker strikes as were common in many parts of the country where such industries prevailed. While their impact was significant locally, other larger labor movements had much greater influence in the national social fabric and development of worker relations.

The Little Colorado region is at the forefront of a recent social shift occurring in this country regarding sustainable and local economic development. Examples include:

- The commitment of Coconino County to pursue sustainable economic development on a variety of fronts
- Several public and private partnerships to develop wind power (Arizona Public Service (APS), Northern Arizona University, City of Flagstaff, Bureau of Land Management, private landowners and private businesses)
- Efforts of non-profits (Native Movement) and educational institutions (Coconino Community College, Northland Pioneer College, and Northern Arizona University) to promote sustainable building techniques
- Numerous private enterprises and community organizations related to sustainable agriculture or other businesses
- Many of these efforts are mentioned within the heritage theme chapters. Combined, they demonstrate that residents and local officials of the Little Colorado region are thinking progressively and for the future. These efforts and cooperating organizations also provide a wealth of resources and information for those who want to pursue an alternative lifestyle aimed at reducing negative impacts on the landscape.

American Art, Crafts, Literature, Music

Navajo, Hopi, and Zuni arts and crafts are known the world over for their distinctive style, materials, and high quality craftsmanship. Significant collections exist in many American cities outside of the Little Colorado region and in international cities as well. While some materials for art and craft production were acquired through trade, in prehistoric times the vast majority of materials and design patterns were direct reflections of the resources and lived experience of the Little Colorado region. In modern times, ancient and traditional designs are still highly prized among artists and buyers. Even for artists who break from the strictly traditional, their artwork still echoes the aesthetics developed by their culture over

centuries. The most common Native art forms are pottery, jewelry, weavings, and carvings of stone or wood. Music and dance, though artistic and definitely distinctive to a particular tribe or society within a tribe, are usually more religious in nature.

Award-winning author Tony Hillerman has written 18 mystery novels as well as other fiction and non-fiction books pertaining to the Navajo culture, the culture of others living in the Southwest, and the landscape. His books are noted for their cultural details.

Distinctive Architecture and Architectural Periods and Movements

Mary Colter worked extensively in the Mission Revival and Pueblo Revival style of architecture. Her work for the Fred Harvey Company and ATSF Railroad helped to spread the popularity and awareness of these styles that came to signify Southwest architecture in the minds of Americans across the country. The major basis for her designs was, of course, authentic pueblo buildings themselves. Developed and perfected over centuries and in complete harmony with the materials and climate prevalent in the Southwest, the structures of Native Americans were so indicative of their lifestyle that the Spanish used the term *pueblo,* meaning "town," to refer to the people themselves. The term has crossed centuries, languages, and cultures and refers to both an actual structure or an entire culturally distinct group of Native Americans.

Pueblos, the structures, are multi-unit buildings consisting of connected square rooms with or without passageways between them, thick stone or adobe mud walls, often two stories or more, with large wooden crossbeams forming a ceiling upon which smaller branches and grass are laid in opposing directions and sealed with mud. In past times, pueblo rooms had no doors and were entered via a ladder and hole in their flat roofs. Many examples of authentic prehistoric pueblo structures remain in the Little Colorado region. The architectural elements characteristic of pueblos—adobe, rounded wall corners, large wooden ceiling beams *(vigas)* that protrude from the exterior walls, an earthen color scheme, flat roofs, and a profile that suggests multiple layers—are also found in many modern buildings regardless of the method in which they were built.

Similarly, Navajo hogans are as unique to the Navajo as pueblos are to the Hopi, Zuni, and other Pueblo tribes. Eight-sided with the entrance to the east, hogans are the traditional dwelling structure of Navajos. Even today when many have other types of housing, many homesites still have a hogan for traditional religious or other purposes. Spotting a hogan from the side of the road while driving is one sure way a traveler knows he or she has entered Navajo territory.

Major Scientific Discoveries and Advancements

The extreme elevational changes present in the Little Colorado region led biologist C. Hart Merriam, one of the original founders of the National Geographic Society, to develop the concept of life zones. Life zones describe a certain grouping of plants and animals that occur together at different altitudes or at different latitudes. His concept has been altered

and improved upon since first developed in 1889, but remains a basic tenet in the ecological sciences and in the minds of the general public.

Major astronomical discoveries also occurred in the Little Colorado region. Lowell Observatory in Flagstaff was built in 1894 and is one of the oldest observatories in the West. It is perhaps most famous for the discovery of Pluto in 1930, but has made other equally impressive discoveries as well. These include data gathered by astronomer Vesto Melvin Slipher that led to the realization that the university is expanding, the variation in brightness of Halley's Comet, the presence of oxygen on Jupiter's moon Ganymede, the three largest known stars, the co-discovery of the rings of Uranus, and the discovery of a number of planets orbiting stars in the Milky Way galaxy. Lowell Observatory is now in a partnership with the Discovery Channel to build the 4.2-meter Discovery Channel Telescope, which is planned to be operational by 2010. The telescope will research Near Earth Objects, extrasolar planets, and objects in the Kuiper Belt that lie just beyond our solar system.

Meteor Crater is an example of what happens when space meets Earth. Long considered a volcanic crater, a young Eugene Shoemaker proved in 1960 what one of the crater's earlier owners had always suspected since the turn of the century—that it was caused by a meteor impact. Meteor Crater is the first proven meteor impact site on earth and the best-preserved. The information gained at Meteor Crater led to the development of the field of astrogeology and the identification of other meteor impact sites around the world and on the Moon. Meteor Crater was used as a training ground for the Apollo astronauts for their lunar landings. Shoemaker went on to an impressive career in astronomy and astrogeology, winning the National Medal of Science in 1992.

Native Americans have long known of the intricate relationship between the movement of the stars and planets to cycles on earth. Many petroglyphs, and even entire structures, are thought to mark the annual movements of the sun or moon. The astronomical purpose of these markers is only recently being re-discovered by non-Natives today.

Both nationally and internationally, the Little Colorado region is known by geologists and paleontologists for exposures of Mesozoic-aged rock and the fossil wealth it contains. The region, as a whole, is in a process of erosion, which is constantly leading to new fossil exposures and subsequent discoveries. The geologic resources already discovered yielded enough fossil remains to allow a detailed reconstruction of a key time in earth's evolutionary history, the late Triassic.

Other Comparable Representations that Together with Their Associated Resources Substantively Contributed to the Nation's Heritage

The previous nine criteria, as well as the rest of the study, adequately explain the heritage of the Little Colorado and its significance both regionally and nationally.

chapter 5

supporting resources and affected environment

SUPPORTING RESOURCES

This chapter inventories all National Historic Landmarks and properties listed on the National Register of Historic Places. The quality and importance of these places have already been recognized at the national level as being significant to the history and culture of the region and the nation. Additionally, resources that support the richness of living in the Little Colorado region, but that do not fit squarely into one of the seven main heritage themes, are also listed and explained.

(LIST OF NATIONAL HISTORIC LANDMARKS AND NATIONAL REGISTER SITES FORTHCOMING)

Other Supporting Resources

- **Cushman Art Museum, Springerville:** A remarkable collection of Renaissance to early 20th century European art, the pieces are the gift of Renee Scharf Cushman and are on display by appointment.
- **Grand Canyon Trust, Flagstaff:** This nonprofit organization focuses its efforts on many projects including air quality and energy, forests, landscape protection and restoration, water, and culturally appropriate development projects on Native American reservations. Its extensive volunteer program allows people to engage in hands-on activities that increase their appreciation and knowledge of the region.
- **Local historical societies and museums, Gallup, Holbrook, Ramah, Snowflake, Show Low, White Mountain, Winslow:** These historical societies or heritage foundations support a range of programs, events, and sites tnat interpret many different aspects of life in their respective communities. Historical information and exhibits, Native American artifacts, local artists, and more are given public access and attention by these organizations.
- **Museum of Northern Arizona Ventures Program, Flagstaff:** The

Ventures Program offers a wide range of educational trips throughout the southern Colorado Plateau region. From geology to Native culture to historic roads, participants always travel with a recognized expert in the field and are afforded rare, intimate opportunities to experience and learn.

- **Northern Arizona University, Flagstaff:** The university's Ceramic Complex is home to Tozan kilns. The wood-fire kilns, which produce an unusual type of finish on clay pieces, were developed in Japan and are exceedingly rare in the Western Hemisphere (the only other known site is in British Columbia, Canada). As a result, the university has hosted a number of international ceramics workshops and conferences since their completion in 1985. The vision of the kilns' builder, master Japanese ceramist Yukio Yamamotot, included a Japanese teahouse to be built at the site. This was completed in 2002, and now hosts public programs. The university also maintains an art museum that is open to the public and sponsors a number of performing arts and film series. An Elderhostel program also operates from the campus and since 1983 has offered more than 50 programs for seniors who want to explore, learn, and really understand the life and land of northern Arizona and western New Mexico.

- **Pioneer Museum, Flagstaff:** The Arizona Historical Society operates this museum, the building of which was originally built in 1908 as a county hospital. The museum features an annual Wood Festival and an Independence Day Celebration featuring living history camps and demonstrations of early European-settler crafts such as woodworking and candle-dipping. The collections of the museum contain farm machinery, a logging locomotive, pioneer clothing, household furnishings, and other memorabilia.

- **Roden Crater, east of Flagstaff:** Roden Crater is the vision of artist Jim Turrell. Turrell has exhibited across Europe, in Japan, as well as in the United States. His Roden Crater project is a work in progress. Initially begun in 1972, major construction began in 1999 and is ongoing. When compelte, the crater will be transformed into an observatory of sorts designed speficially for viewing night skies.

- **Valle Redondo Days, Springerville and Eagar; Pioneer Days, Snowflake; Ramah Pioneer Days, Ramah:** These community celebrations bring together foods, music, sporting events, dances, crafts, and activities that celebrate the founding and history of the respective towns. Valle Redondo Days celebrate the community's connection to John Wayne, who owned the 26 Bar Ranch in Eagar as the ancient and modern culture of the ranch's current owners, the Hopi Tribe.

AFFECTED ENVIRONMENT

How will the proposed designation affect the natural and cultural resources mentioned in this and previous chapters? This is an important question as the importance of the region's resources has already been demonstrated previously in this study. Exact and specific effects are impossible to detail at this stage of the proposed Area's development, but general effects are expected to include the following.

EXPECTED POSITIVE EFFECTS

National Heritage Areas are designed, of course, to facilitate numerous positive changes in a community in regards to natural and cultural preservation efforts, education, heritage tourism development, greater support for local economies, among other benefits. The following is how.

An Increase in Regional Coordination of Conservation or Preservation Efforts

As has been shown in Chapter 3, the individual natural and cultural resources of the Little Colorado River Valley are interrelated. The experience of one community with a particular type of resource may be extremely helpful for another community with a similar resource facIng a similar preservation issue. The National Heritage Area can provide a forum in which these experiences are shared and assistance given.

An Increase in Regional Coordination of Heritage Tourism Efforts

Heritage travelers typically like a mix of things to do and experience during their trips. Most Little Colorado communities are too small individually to host visitors with wide-ranging interests for an extended period of time. However, the diversity of the region as a whole provides plenty of opportunities to keep visitors in the region for as long as they would wish. When communities cross-promote instead of compete, more tourism dollars stay closer to home. The National Heritage Area can be influential in making the Area's different tourism opportunities known to all communities in the Area and in marketing all of the opportunities as a diverse menu of potential experiences.

Additional Funding for Education, Preservation, or Heritage Tourism Efforts

At some point, good intentions and good will need financial backing. The numerous education, preservation, and heritage tourism efforts already underway in the Little Colorado region attest to the desire of people and communities to pursue these types of projects. As most involved with the projects will say, however, adequate funding is one of the most difficult aspects of the project to develop. The National Heritage Area can be a source of matching funds for projects as well as a source of technical guidance to help ensure those funds are put to use for the maximum benefit.

Greater Ability to Raise Awareness of the Little Colorado River Region on a National or International Scale

Again, while one community may not be able to attract national or international attention, the region as a whole contains a cohesive and dynamic heritage that many find intriguing. An analogous example would be the Napa Valley of California. Napa Valley contains about 10 separate cities and towns and additional parks, lakes, and National Recreation Areas, but to most people the region is simply known as Napa Valley. The American Southwest as a whole already receives many national and international visitors, but the Little Colorado region falls behind other neighboring regions in terms of the number of visitors it receives. Raised awareness, along with more developed heritage tourism

infrastructure and offerings, will make the region more well-known and understood.

New Investment in the Region

Many of the potential benefits work hand-in-hand with each other. As initial conservation, education, and tourism projects are completed and the region gains wider recognition, funding agencies and foundations, as well as private individuals and entrepreneurs, will look to the Little Colorado region's success and want to contribute. The average ratio of federal dollars to other investments all National Heritage Areas taken as a whole have been able to attract is 1:8, though in some Areas the amount of non-federal investment is much higher.

Support of Local Economies

The National Heritage Area will focus on the aspects of a community that make it unique and on projects that reinforce its own character. Many times what distinguishes one community from another are the types of businesses and industries found within the community and the specific look and feel of its built environment. National Heritage Areas have a history of supporting local businesses and downtown development and the proposed Little Colorado River Valley National Heritage Area has the same potential.

Quality of Life

The proposed Little Colorado River Valley National Heritage Area is a place of diverse cultures, communities, and industries, yet all overlap and affect each other. A balanced approach to projects funded or undertaken by the National Heritage Area will ensure that the quality of life in communities is enhanced or maintained. Projects that are culturally, environmentally, and economically appropriate will reinforce the values and landscape upon which the communities were intially built.

POTENTIAL NEGATIVES EFFECTS

As with any endeavor, negative effects can occur along with positive effects. Because participation in any National Heritage Area program or plan is voluntary, individual communities or individual residents can weigh the potential positive and negative impacts of a particular project beforehand and choose to participate or not given their personal evaluation of the situation. As a whole, the negative impacts of designation are few and related to an increase in tourism.

A raw increase in tourism can increase negative environmental and social impacts. These amount to environmental impacts related to higher rates of use of trails, lakes, and other natural areas or the wear and tear of historic or pre-historic structures associated with an increase in the number of visitors. Regarding social impacts, in any community, there are people who welcome tourists and people who do not. Any increase in tourism may be seen as a negative impact by those who do not like tourism in general, but an increase in tourism is often welcome by those who own or work in a variety of businesses. Yet, the negative impacts of increased tourism are not expected to be serious due to several factors.

A large amount of the negative impacts associated with tourism has to do with

the pollution associated with travel. As noted elsewhere in this study, both Arizona and New Mexico are already popular tourist destinations as a whole and the I-40 corridor is heavily traveled. Enticing tourists who are already traveling through or near the Little Colorado region to make stops within the region will not add significantly to the amount of travel they are already doing. Furthermore, the goal of heritage tourism is to have visitors stay for longer periods of time in a region as opposed to simply attracting a higher number of visitors. Visitors who spend one or more nights in a community significantly increase the amount of revenue a community realizes as compared to day-tripper tourists. If visitors who come to the Little Colorado can fill their vacation time within the region, then there is less incentive for them to travel to more distant destinations, thus potentially reducing travel-related impacts, and dollars spent in one community still can still benefit the economy of the neighboring community. Because the Little Colorado region is relatively large and its tourist offerings are diverse, no one community will receive the brunt of a dramatic increase in tourist numbers and therefore what minimal negative impacts may occur will be diffused throughout the region and remain at a level that is easy to manage. The increased revenues from overnight tourists and increased incomes from fees for tourist activities and attractions can be used in part to maintain tourist facilities and attractions. Additionally, heritage tourists, when compared to the total tourism market, tend to spend more and be more respectful of the local community and environment. Thus, their positive impacts are greater and their negative impacts are less than can be expected from the standard tourist.

While the National Heritage Area, by law, cannot interfere with development of any kind, it can choose what type of tourism development it supports as an organization. Localized tourism that respects cultural values and environmental integrity will be the types of tourism the National Heritage Area will promote.

chapter 6

potential for economic development based on heritage tourism

ECONOMIC IMPORTANCE OF NATIONAL HERITAGE DESIGNATION

Tourism is one of the most important segments of the economy, contributing $11.8 billion into Arizona's economy and $6.5 billion to the economy of New Mexico in 2006. Compared to urban areas, tourism contributes a larger proportion to the economy in rural areas such as the Little Colorado River Valley Area because of the scarcity of other income producing industries. A Congressional National Heritage Area designation for the Little Colorado River Valley Area can have a significant impact on the region's capacity for economic growth. A comparative study by Michigan State University found that National Heritage Areas were able to double the economic impact of tourism within 10 years after designation resulting in more jobs, business income, and tax revenues.

The proposed National Heritage Area currently attracts domestic and international visitors who come to view the dramatic landscapes and learn about its cultural heritage. Within the boundaries are internationally known geological attractions such as the Petrified Forest and culturally renowned features such as the Navajo, Hopi, and Zuni Nations. The increased recognition brought by designation as a National Heritage Area will build on an existing tourism industry and encourage the development of partnerships throughout the region that will create opportunities for new tourism development.

Today's visitors are seeking unique experiences as a means of fulfillment. The Little Colorado River Valley Area has the raw ingredients for producing numerous itineraries with high dollar value. The seed funding provided for designated Areas promotes collaborations among private and public entities and draws together formerly separate entities. Such collaboration often results in cooperative marketing efforts that link multiple tourist attractions and public and private entities to create a tourism experience that has a stronger appeal than the sum of the individual pieces. The economic importance of creating such experiences has been clearly recognized. Modern tourists are not

Table 6.1. Visitation at major attractions within the proposed Little Colorado River Valley National Heritage Area, 2006.

Attraction	Number of Visitors
National Park Service	
Petrified Forest	581,801
Wupatki National Monument	242,980
Sunset Crater National Monument	221,406
Walnut Canyon National Monument	120,820
Hubbell Trading Post Natl. Historic Site	77,099
El Morro National Monument	35,000
Total visitation to NPS attractions	1,271,906
National Forest Service	
Apache-Sitgreaves National Forest	N/A
Coconino National Forest (2005)	3,250,000
Cibola National Forest	N/A
Navajo Tribal :Parks	
Little Colorado River Gorge (viewpoint)	43,363 ('07)
State Parks	
Homol'ovi Ruins State Park, Arizona	91,259
Lyman Lake State Park, Arizona	34,628
Riordan Mansion State Park, Arizona	25,915
Fool Hollow State Park, Arizona	15,979
Red Rock State Park, New Mexico	N/A
Private Attractions	
Lowell Observatory	72,766
Museum of Northern Arizona	69,152
Meteor Crater	~216,000 ('07)

(AZOT 2007, Dean Runyan Associates)

> satisfied with simply observing a number of interesting places, but rather seek unique experiences that leave them with favorable sense-of-place feelings and an attachment to the destination that results in repeat visitation and external sales. The development of such experiences requires public land management agencies, government offices, and operators of lodging, food service, tours, and attractions to work together to create memorable experiences. This type of tourism results in greater economic value to the destination because visitors are willing to pay a higher price since they perceive coordinated experiences as having higher value. An analysis of the attributes of the Little Colorado River Valley Area reveal a strong potential for the development of four types of experience tourism: cultural heritage, natural environment, outdoor recreation, and culinary.

Attributes of the Little Colorado River Valley Area

Visitation

Of the 33.7 million visitors to Arizona, approximately 18.9% visit Northern Arizona, a large region of which the Little Colorado River Valley Area is a portion. Within this area there are six attractions managed by the National Park Service, parts of three National Forests, five state parks and three major private attractions (Table 6.1). Four of the public lands in the proposed heritage area are listed in the top 25 natural attractions for the state of Arizona: the Petrified Forest National Park, Wupatki National Monument, Sunset Crater National Monument, and Walnut Canyon National Monument. When the visitation numbers for the five Arizona attractions managed by the National Park Service are combined, the number of visits total more than 1.2 million (AZOT 2007). In addition, El Morro National Monument in New Mexico attracts 35,000 visitors annually (NPS El Morro). Three National Forests compliment the natural attractions: Apache-Sitgreaves National Forest, Coconino National Forest, and Cibola National Forest. In addition to the federally managed lands, four state parks provide opportunities for cultural, heritage, and outdoor tourism.

Cultural Heritage Tourism

The Little Colorado River Valley has unique and varied cultural and historic resources upon which to draw to build a viable cultural heritage tourism industry. Several State and National Parks feature the ruins and petroglyphs of a variety of cultures from the earliest to more modern-day residents. In addition, local museums and the Museum of Northern Arizona house numerous artifacts that tell the story of the land and its people. Remnants of the lives of the ancestors of the modern Native American nations that currently inhabit the region can be experienced by visitors. Hopi, Zuni, Navajo and White Mountain Apache Indians continue to produce highly prized rugs, jewelry, and pottery. All of this is further enhanced by numerous art, craft, and music festivals. Each of these resources has the potential to bring economic growth to the region. The numerous cultural heritage resources located within the Little Colorado River Valley Area are explained and listed throughout the seven heritage theme sections of Chapter 3.

Natural Environment Tourism

The striking and dramatic landscapes in the Little Colorado River Valley draw tour groups and individual travelers to the region. Visitors come to view the sweeping open vistas and the world's most rare examples of Triassic period petrified wood and dinosaur fossils. Inside the proposed Little Colorado River Valley are notable geographic features such as the Painted Desert, the volcanic San Francisco Peaks, the Mogollon Rim, and Hopi Mesas. Visitors are attracted to the numerous publicly managed lands including the Coronado Trail National Scenic Byway, Wupatki National Monument, Sunset Crater, the Little Painted Desert county park, Walnut Canyon National Monument, the Petrified Forest National Park and the Painted Desert. The uniqueness and drama of the landscape has the potential to attract more visitors than it currently does. The Petrified Forest National Park currently attracts 600,000 annually but it has the capacity to handle a great deal more visitors. Designation of the Little Colorado River Valley as a National Heritage Area will facilitate cooperation among the various land management agencies and local stakeholders. Such cooperation may lead to the development of tourism experiences that link the awe inspiring landscapes to the geological and anthropological history of the region. The designation has the potential to change the current tourist activities from site-seeing to experiences that give visitors a richer and more connected experience with the landscape and people. Experience tourism keeps the visitors in the region longer and attracts higher spending visitors, thereby increasing the economic impact of their visitation. The Sacred and Enchanted Landscapes and Outdoor Recreation sections of Chapter 3 describe and list the dramatic landscape features located in the Little Colorado River Valley.

Outdoor Recreation Tourism

Expansive and extraordinary landscapes within the proposed Area provide a unique and appealing backdrop for a myriad of outdoor recreation activities. Well maintained trails and facilities in National and State Parks as well as recreation areas in the extensive Coconino, Cibola, and Apache-Sitgreaves National Forests are particularly attractive to visitors who enjoy hiking, biking, hunting, fishing, and camping. Hikers can hike from the southern border of Arizona to its

northern border and back again on the Arizona Trail, part of which is located in the Little Colorado River Valley. The Arizona Trail is but one of the numerous trails that are maintained for the enjoyment of residents and visitors alike. Hunters are attracted to the wildlife, especially the elk that inhabit these protected lands. The features of mountainous regions attract winter sport enthusiasts and stargazers who appreciate the dark skies and clear air. Climbers come to be challenged by impressive canyon walls that beg to be scaled. Open spaces with spectacular scenery facilitate ballooning excursions and festivals. The drama of the outdoor features of the region provide opportunities for economic development by setting the stage for the production of unique tourism experiences designed to present a challenge to and encourage the involvement of the visitor in the landscape. These opportunities are described at length in the Outdoor Recreation section of Chapter 3.

Culinary Tourism

Culinary tourism is one of the fastest growing segments of the industry. This lucrative segment of the tourism market is drawn to experiences where they can learn to prepare foods that they have not previously experienced. Visitors delight in the discovery of new ingredients and new cooking techniques. They are anxious to gain information about foods that they know little or nothing about. An important motivation for culinary tourism is to do something no one else in their circle of friends has done. Unique heritage and modern culinary experiences can be created based on the resources of the Little Colorado River Valley. A particularly intriguing culinary experience can be developed around the foods of the ancient cultures that inhabit the area. These early residents survived largely on maize, squash, pine nuts, game, and Anasazi beans. Another very interesting and unique food is the Churro sheep currently being raised on the Navajo reservation. These sheep are direct descendants of the Churrea sheep brought into the area by the Spanish in the 1590s. These types of culinary tours can be enriched with the history and culture of the people who developed these foods. Ingredients such as prickly pear cactus and pine nuts can be featured in local products that are sold in tourist shops. Working food producers can also benefit from tourism by opening their wineries, farms, and ranches to tourism or by having local restaurants and retailers sell their products to a knowledgeable and appreciative public of both residents and tourists. Such operations can also offer classes, workshops, and special events.

Economic Value of Tourism to the Area

Tax Revenues and Income from Tourism

Tourism is an important part of the economy and a significant contributor to local, state, and federal tax revenues. In 2006, $1.5 billion in Arizona state and local tax revenues was generated from direct travel spending and the federal government collected another $1.2 billion in tax revenues (Runyan 2006). Of the $1.5 billion in state and local tax revenues, 5.3 percent ($78.3 million) came from the three counties (Coconino, Navajo, and Apache) in the proposed Little Colorado River Valley National Heritage Area. Of the $18.6 billion spent by visitors in Arizona, $1.2 billion, or 6.6 percent, was spent in the three counties. Especially interesting is

Table 6.2. Economic impact of tourism in the proposed heritage area.

Region	Expenditures ($ Million)	% State	Jobs	% State	State and Local Tax Revenues $ Million	% State
Arizona	18,600.0		173,000		1,479.0	
Coconino County	834.1	4.5	10,740	6.2	55.0	3.7
Navajo County	259.1	1.4	3,040	1.8	15.3	1.0
Apache County	128.5	0.7	1,730	1.0	8.0	0.5
Tri County Total	1,221.7	6.6	15,510	9.0	78.3	5.3
New Mexico	5,007.6		55,630		411.0	
Catron County	4.1	0.1	30	0.1	0.1	0.1
Cibola	63.7	1.3	670	1.2	5.0	1.2
McKinley	149.9	3.0	1,490	3.0	11.7	3.0
Tri County Total	217.7	4.3	2,190	3.9	16.8	4.0

the number of jobs generated by tourism expenditures. Of the 173,000 tourism related jobs in Arizona, 15,500 thousand or approximately 9 percent are in the designated region.

In New Mexico, tourism accounted for $411 million in state and local taxes of which approximately 4 percent came from the three counties in the Little Colorado River Valley Area. The region accounts for less than 4 percent of the jobs in the state and a similar percent of local and state tax revenues.

Table 6.2 provides detailed data on expenditures, jobs, and tax revenues. The proposed Area receives a relatively small portion of the economic benefits of tourism compared to other counties. Increasing tourism opportunities may result in improving the ability of the area to attract tourism dollars that result in an increase in jobs and tax revenues.

Tourism Provides Employment Opportunities

The data displayed in Table 6.3 demonstrates the importance of tourism development in rural areas where unemployment is relatively high. From 1998 to 2005, the three Arizona county regions experienced a 2.6 percent decline in tourism employment while the state of Arizona saw a 14.2 percent increase in tourism related jobs. The highest increase in employment (16.1 percent) occurred in a rural county in which a tourism business, the Hon-Dah Resort-Casino and Conference Center, was developed.

The natural, cultural, recreational and culinary resources of the Little Colorado River Valley Area provide the resources for the creation of tourism experiences that will result in increasing employment opportunities for both the skilled and unskilled labor force. A tourism experience that includes a personal guide, hand crafted memorabilia, locally grown food and pampered lodging will require more employees than the current type of tourism. The heritage area designation encourages the development of rich experiences while protecting and preserving the resources that attract visitors. It encourages cooperation between public land management agencies and private landowners, each one benefiting from cooperative efforts while contributing to economic growth.

Table 6.3. Tourism job growth, 1998 to 2005.

Region	1998 Jobs	2005 Jobs	Percent Change
Arizona	148,000	169,000	+14.2
Coconino County	11,230	10,740	-5.3
Navajo County	3,210	3,040	-4.4
Apache County	1,490	1,730	+16.1
Tri County Total	15,930	15,510	-2.6

Growth of the Tourism Industry in Arizona 1998-2005

While tax revenues from tourism in Arizona grew 57.6 percent between 1998 and 2005, tax revenues from tourism in the tri-county region grew by only 28.4 percent. The three counties in the designated region experienced a mere 29.5 percent increase in tourism spending compared with a 49.1 percent increase in the state of Arizona. The figures suggest the proposed Little Colorado River Valley Area, especially Coconino County, is not capturing its share of tourism's growth potential. Coconino County, the largest county in the state, shows the poorest performance with a meager 23.2 percent increase in tourist spending in seven years. While Apache County is keeping pace and exceeding state averages in tourist spending, the other two counties lag behind state averages. The significant increase in jobs in Apache County (54.6 percent) can be largely attributed to the development of the Hon-Dah Resort-Casino and Conference Center demonstrating the importance of tourism development to rural communities. Table 6.4 displays data related to the growth of tourism in Arizona and the three counties in the proposed heritage area from 1998-2005.

Growth of the Tourism Market

The U.S. domestic tourism market continues to experience vigorous growth. According to the US Census Bureau, the domestic tourism market increased from 100 million to 200 million from 1967-2006. By 2040, the 2006 figure will double to 400 million. As the value of the dollar declines in relation to the Euro, the US is becoming an increasingly attractive destination to European travelers. International tourism has rebounded significantly from the decline after the 911 Attacks and continues to demonstrate strong growth. Arizona is one of the fastest growing states in the US. Its population has nearly quadrupled since 1960 when the state's population was roughly 1.3 million. Today, the U.S. Census Bureau estimates the population has grown to nearly 6.2 million and will continue to grow until the population doubles in 2020. This increased population will result in more resident travel and more travel to rural areas and neighboring states such as New Mexico. Another increase in tourism will occur when the new residents entertain visiting friends and family. Currently, visiting friends and relatives account for more than one-half of all visitors to Phoenix and Tucson. Consequently, there will be a demand for new tourism products; especially those that help the new residents understand and appreciate the land, history, and culture of Arizona. The designation of the Little Colorado River Valley Area as a national heritage area will stimulate interest in visitation resulting in significant economic growth.

Aging Population

Two-thirds of the Baby Boomers list travel as their preferred retirement past

Table 6.4. Growth of tourism in Arizona, 1998 to 2005.

Region	State & Local Tax Revenue 1998 ($ Millions)	State & Local Tax Revenue 2005 ($ Millions)	% Change	Tourist Spending 1998 ($ Millions)	Tourist Spending 2005 ($ Millions)	% Change
Arizona	938	1479	57.7	11800	17600	49.1
Coconino County	44.2	55	24.4	678.8	836.5	23.2
Navajo County	11.1	15.3	37.8	183.5	259	41.4
Apache County	5.7	8.0	40.4	83.1	128.5	54.6
Tri County Total	61.0	78.3	28.4	945.4	1224	29.5

time. This group of active travelers will require new types of tourism activities. They will be looking for tourism in which they can be involved and from which they can benefit.

Educational tourism, ecotourism, culinary tourism, and voluntourism are but a few of the types of tourism that will engage these avid travels who have the interest, time, and financial resources to travel (Cothran 2007). As demonstrated earlier, the proposed Area has the natural, historical, and cultural resources with which to develop tourism experiences that will appeal to the large group of retirees.

Cultural and Heritage Tourism

The results of a recent survey indicate that the majority of visitors to Arizona (58 percent) wanted to experience the local culture and learn about the history of a region. These visitors were seeking an appreciation and knowledge of the cultural heritage of the area they were visiting. More than 90% of the visitors had visited at least two cultural heritage attractions in the past six months. Interest in the culture and history of a region is equally important to resident visitors, out of state, and international visitors. Visitors from outside the region were motivated by novelty, seeking something new and different while local residents felt visiting such attractions would enhance their quality of life. For most, visiting cultural and heritage attractions is fun. Approximately 1.6 million of Arizona's visitors are inspired to visit the region because of its unique history and culture (Andereck and Ng 2006).

Hispanic Tourists

A relatively large proportion (28.5 percent) of Arizona's population has Hispanic heritage. Hispanics tend to recreate differently from other groups. They often travel in large, multigenerational groups and are attracted to outdoor areas with picnic facilities. The heritage area can take advantage of the economic opportunities of attracting travelers with Hispanic backgrounds by offering local, intergenerational activities and events (Cothran 2007).

Need for New Product Development

Significant changes in the types of tourism products desired by emerging markets are expected in the next 5 to 15 years. Recent retirees who are well-traveled are seeking experiences that enrich their lives. These higher spending experienced tourists are now seeking authentic tourism activities in which they can be actively involved. 2008 marks the year when the first group of baby boomers will turn 62, a popular retirement age. Two-thirds of the retirees are likely to be spending their retirement years traveling. Consequently, in the next few years, retired baby boomers will be dominating the tourism market. Boomers with considerable travel experience will be seeking unique destinations with authentic experiential tourism products. They will be looking for tourism that they can talk about when they get home, products that will actively involve them and products that enrich their knowledge, altruism and/or status. Destinations that add new products to attract this lucrative and growing market are likely to see considerable economic gain.

Heritage area designations create fertile ground for the development of cultural, historic, and nature tourism experiences because of the incentives to preserve and enhance the unique character of the region. The types of tourists attracted to the attributes of the Little Colorado River Valley Area are some of the most desirable kinds of tourists. Cultural, heritage, and nature tourist tend to stay longer and spend more money than traditional mass tourists. The Arizona Office of Tourism ranks nature tourism as the fastest growing type of tourism in the state.

Potential for Economic Growth

A National Heritage Area designation will provide incentives for the development of tourism products and seed money for improved marketing resulting in an increase of tourism dollars that will drive regional economic development. The increase in the number of jobs and tax revenues to fund infrastructure improvements will open the area to other economic development opportunities. While the designated region has a considerable number of attractions and places of interest as well as a rich history and culture that is of interest to both domestic and international visitors, it lacks a critical mass of attractions with significant drawing power.

The organization of the area into a recognizable entity creates the potential for the development of tourism experiences that draw upon the rich resources of the region to provide visitors with a memorable and unique experience. Such tourism products meet the demands of the current tourism market that seeks enrichment and distinctive activities that are unmatched elsewhere. Regions that can provide these unique tourism experiences will benefit from the willingness of the market to pay premium prices for a product that cannot be duplicated elsewhere.

A National Heritage Area designation is an effective economic development strategy because it significantly increases heritage and natural tourism thereby increasing business income, the number of jobs available in the area and tax revenues. Rehabilitation of historic buildings supported by grants and loans combined with federal and state credits available because of the

designation will create new housing, help revive historic neighborhoods and downtowns, stimulate the growth of a rehabilitation industry, and create new investment opportunities.

Economic growth can be substantial for a designated National Heritage Area. For example, in the ten years following the designation of Path of Progress National Heritage Area in Pennsylvania, the annual economic impact from tourism activity doubled. A Michigan State University study found that such increases are typical. A doubling of tourism expenditures in the Little Colorado River Valley would raise the income in the three Arizona counties from tourism to close to $2 billion. Tax revenues would increase by 78 million and 15,000 new jobs would be added to the tri county region in Arizona.

PRIMARY REFERENCES

Andereck, K., and Ng, E.
2006 Arizona Cultural Heritage Tourism Study. Arizona Office of Tourism. Accessed 28 December 2007. <http://azot.gov/documents/AZ%20Cultural%20Heritage%20Exec%20Summary.pdf>.

Arizona Office of Tourism
2007a Arizona 2006 Tourism Facts. Statewide and Regional Tourism Indicators. Year-end summary. Accessed 1 January 2008. <http://www.azot.gov/section.aspx?sid=29>.

2007b Arizona Travel Impacts 1998-2006. Accessed 28 December 2007. <http://azot.gov/documents/AZ06pFinal.pdf>.

2007c AZ Tourism Indicators. Accessed 1 January 2008. <http://azot.gov/section.aspx?sid=92&psid=12>.

2007d Top Natural Attractions 2006. Accessed 28 December 2007. <http://azot.gov/documents/Natural_Attractions_2006_Website.pdf>.

2007e Top Private Attractions 2006. Accessed 28 December 2007. <http://azot.gov/documents/Private_Attractions_2006_Website.pdf>.

Cothran, C.
2007 *Arizona's Tourism Future: Effects of Population & Demographic Change*. Arizona Hospitality Research and Resource Center, Flagstaff.

Dean Runyan Associates
2007 2006 by the Numbers Arizona Governor's Conference on Tourism. Research Breakout Session. 12-13 July 12-13. Presented by AOT Research Division.

National Park Service
2007a El Morro National Monument. Frequently asked questions. Accessed 1 January 2008. <http://www.nps.gov/elmo/faqs.htm>.

National Park Service
2007b Petrified Forest National Park. Frequently asked questions. Accessed 26 December 26 2007. <http://www.nps.gov/pefo/faqs.htm>.

New Mexico Tourism Department
2007 Travel Economic Impact Model. Accessed 30 January 30 2008. <http://www.newmexico.org/MEDIA/RESEARCH/economic-impacts/Economic%20Impact%20FY2006.pdf>.

chapter 7

alternative actions

ALTERNATIVE 1: CONTINUE CURRENT EFFORTS

With this alternative, there would be no designation of a Little Colorado River Valley National Heritage Area and conservation, education, and tourism development efforts would continue as they have in the past.

Expected Outcomes of Alternative 1

Little Colorado community efforts to conserve resources, provide cultural education, or develop heritage tourism have largely been on a specific community-by-community or site-by-site scale. Many local governments and private businesses, organizations, and citizens have and would continue to donate their time, talents, and limited funding to projects in their immediate locale. Past efforts have been effective in ensuring the integrity of many individual heritage sites and practices, but coordination on a larger scale has not occurred to any great extent. Many community leaders recognize the importance of coordinating efforts across a larger region but lack the funding or personnel power to do so effectively. There would be no one person, as in a paid staff member, specifically dedicated to coordination and development of the whole region and therefore such coordination and development would be highly unlikely.

ALTERNATIVE 2: DESIGNATION OF A STATE HERITAGE AREA

With this alternative, the Little Colorado River Valley would become a heritage area jointly designated by the States of Arizona and New Mexico.

Expected Outcomes of Alternative 2

Several established National Heritage Areas (Lackawanna Heritage Valley National Heritage Area and Schuylkill River National & State Heritage Corridor are two examples) were state-designated heritage areas before their national designations. In such cases, achieving state-level designation can be seen as a helpful, developmental step towards greater national recognition. Neither Arizona nor New Mexico has an established program of this type, however, and therefore this is not a viable alternative at this time. Arizona

has considered starting a state heritage area program, but nothing is in place now and will not be for the foreseeable future. Waiting for the establishment of a state-level program before seeking national-level designation would squander the considerable amount of time, energy, and resources that have been committed to this current effort.

ALTERNATIVE 3: DESIGNATION OF A LITTLE COLORADO RIVER VALLEY NATIONAL HERITAGE AREA

With this alternative, Congress would establish a Little Colorado River Valley National Heritage Area, would designate a local coordinating entity to carry out regional goals and projects, and would appropriate funds during the succeeding 15 years to ensure its success.

Expected Outcomes of Alternative 3

The establishment of a National Heritage Area would provide funding and a designated non-profit organization dedicated specifically to the development of the entire region. With a dedicated staff and financial support, success in executing educational, resource conservation, or heritage tourism development projects would be more likely than under the previous two alternatives. The status of a national designation would attract heritage tourists as well as additional non-federal investment in the region. As the Little Colorado River Valley National Heritage Area became more established over time, it could tackle larger-scale efforts than any one community might be able to do on its own. For these reasons, Alternative 3 is the preferred alternative.

ALTERNATIVE 4: DESIGNATION OF A LITTLE COLORADO RIVER VALLEY NATIONAL HERITAGE AREA ACCORDING TO THE MAP PROVIDED IN APPENDIX A

With this alternative, Congress would establish a Little Colorado River Valley National Heritage Area according to the map provided in Appendix XX, would designate a local coordinating entity to carry out regional goals and projects, and would appropriate funds during the succeeding 15 years to ensure its success.

Expected Outcomes of Alternative 4

The establishment of a National Heritage Area according to the map provided in Appendix XX would achieve many of the same regional coordination and financial benefits described in Alternative 3, except that a significant number of related resources of considerable quality would be ignored. The slight benefits realized by a somewhat smaller region in terms of easier coordination and a marginal concentration of financial resources were not viewed by a group consulted with in January of 2008 as outweighing the considerable loss of heritage resources and potential partnerships the map in Appendix XX indicates.

appendix a

an act

To establish the Little Colorado River Valley National Heritage Area.

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

SEC. 1. SHORT TITLE.

This Act may be cited as the 'Little Colorado River Valley National Heritage Area Act.'

SEC. 2. DEFINITIONS.

In this Act:

(1) HERITAGE AREA – The term 'heritage area' means the Little Colorado River Valley National Heritage Area established by section 4.
(2) LOCAL COORDINATING ENTITY – The term 'local coordinating entity' means the Little Colorado Heritage Partnership or a successor of the Little Colorado Heritage Partnership.
(3) MANAGEMENT PLAN – The term 'management plan' means the management plan for the Little Colorado River Valley National Heritage Area.
(4) SECRETARY – The term 'Secretary' means the Secretary of the Interior.
(5) STATES – The term "states" means the States of Arizona and New Mexico.

SEC. 3. FINDINGS AND PURPOSE.

(a) FINDINGS – Congress finds that –
  (1) the natural, cultural, and historic heritage of the Little Colorado River Valley in Northeast Arizona and Western New Mexico is nationally significant;
  (2) within the entire Little Colorado River watershed are places that witnessed and continue to demonstrate –

(A) the unique and varied landscape of the American Southwest which is viewed as sacred by many Native American tribes and awe-inspiring to most residents and visitors;
(B) the pattern and lasting legacy of ancient Native American trading trails and networks followed by American exploration and expansion during the 19th century which included overland trails, roads, and the development of the railroad;
(C) the ancient and modern homeland of three distinct Native American tribes (Navajo, Hopi, and Zuni);
(D) the sophisticated forms of agriculture developed by Native Americans for the unique and challenging climate of the region as well as the impact of Anglo-American logging, ranching, and mining in the earlier settlement and modern-day economy of the region;
(E) past human cultures and lifestyles through a rich and varied archaeological record, including sites that are still important in the religious practices of modern-day Native American tribes;
(F) the practice of fine arts and crafts in a style that is recognized both nationally and internationally as distinct to the American Southwest; and
(G) opportunities for diverse outdoor recreation experiences in an environmental setting that cannot be found in other parts of the country

(3) the natural, cultural, and historic resources within the Little Colorado River watershed are significant in number and retain a degree of integrity high enough to afford them a position of high value in local communities as well as the possibility of being places, events, or activities that can enable visitors to understand and appreciate the character of the Little Colorado River region; and
(4) the Little Colorado River watershed demonstrates a unique and lasting contribution to the development of the United States as a whole.

(b) PURPOSE – The purpose of this subtitle is to establish the Heritage Area to –
(1) foster a close working relationship among the private sector, residents, non-profit organizations, tribal and local governments, and state and federal agencies; and
(2) encourage the support, promotion, interpretation, and enhancement of the heritage of communities in the Little Colorado River watershed through voluntary means while strengthening local economic opportunities.

SEC. 4. LITTLE COLORADO RIVER VALLEY NATIONAL HERITAGE AREA.

(a) ESTABLISHMENT – There is hereby established the Little Colorado River Valley National Heritage Area.
(b) BOUNDARIES – The Heritage Area shall be composed of the natural, geo-physical watershed of the Little Colorado River, with minor adjustments, as identified on the map entitled "Little Colorado River Valley National Heritage Area," numbered _____ and dated _____.

(c) LOCAL COORDINATING ENTITY – The Little Colorado Heritage Partnership, a non-profit corporation chartered in the State of Arizona, shall serve as the management entity for the heritage area.
(d) NATIONAL PARK SERVICE – The heritage area shall not be deemed to be a unit of the National Park System.

SEC. 5. MANAGEMENT PLAN.

A management plan submitted under this Act for the national heritage area shall present recommendations for the funding, conservation, interpretation, enhancement, and promotion of heritage resources within the area.

(a) The management plan shall –
  (1) be based on existing federal, tribal, state, and local plans and provide for a cooperative and coordinated approach to the enhancement, conservation, interpretation, and promotion of natural, cultural, historic, and recreational resources in the heritage area;
  (2) ensure private property rights are observed;
  (3) involve residents, non-profit organizations, the private sector, tribal and local governments, and state and federal agencies during the development of the plan;
  (4) support the continued development of local economies;
  (5) identify existing and potential sources of funding; and
  (6) be submitted to the Secretary for approval no later than three (3) years after the date of enactment of this Act.
(b) The Secretary shall –
  (1) Approve or disapprove the plan no later than 120 days after receipt of the plan.
  (2) Notify the local coordinating entity upon disapproval of the plan and shall provide —
    (A) reasons for disapproval; and
    (B) recommendations for revision.
(c) The local coordinating entity may revise and submit the management plan until the plan is approved by the Secretary.

SEC. 6. AUTHORITY AND DUTIES OF THE LOCAL COORDINATING ENTITY.

(a) AUTHORITIES – The local coordinating entity may, for the purposes of preparing and implementing the management plan, use funds made available through this Act to—
  (1) make grants to, and enter into cooperative agreements with, States or their political subdivisions, federal agencies, tribal governments or their political subdivisions, private organizations, or any person;
  (2) hire and compensate staff; and
  (3) enter into contracts for goods and services.
(b) DUTIES – The local coordinating entity shall –
  (1) develop and submit to the Secretary for approval a proposed management plan as described in section 5 no later than three (3) years after the date of enactment of this Act

(2) hold public meetings regarding the implementation of the management plan at least annually
(3) conduct all activities of the heritage area within the confines of private property rights and the land use plans of federal, state, tribal, and local governments
(4) coordinate the individualized efforts of residents, non-profit organizations, the private sector, tribal and local governments, and state and federal agencies in—
(A) establishing and maintaining interpretive exhibits in the heritage area
(B) developing and maintaining outdoor recreational opportunities in the heritage area
(C) increasing public awareness and appreciation for the natural and cultural resources in the heritage area
(D) promoting events and attractions based on traditions and cultural lifestyles, when appropriate, and natural resources of the heritage area
(E) rehabilitation or protection of archaeological sites, historic structures, and natural places within the heritage area if requested by the owner
(F) carrying out other activities that the local coordinating entity agrees are appropriate to fulfill the purposes of this Act and that are consistent with the management plan.

(c) ANNUAL REPORTS AND AUDITS
(1) For any year in which the local coordinating entity receives Federal funds under this Act, the local coordinating entity shall submit an annual report to the Secretary setting forth accomplishments, expenses and income, and each entity to which any grant was made by the management entity.
(2) The local coordinating entity shall make available to the Secretary for audit all records relating to the expenditure of Federal funds and any matching funds. The management entity shall also require, for all agreements authorizing expenditure of Federal funds by other organizations, that the receiving organization make available to the Secretary for audit all records concerning the expenditure of those funds.

SEC. 7. DUTIES OF THE SECRETARY.

(a) IN GENERAL — The Secretary and the heads of other Federal agencies shall, upon request of the local coordinating entity, assist the local coordinating entity in the preparation and implementation of the management plan described in section 5. The Secretary and heads of other Federal agencies may –
(1) award grants
(2) provide technical assistance and planning and design services
(3) offer office space and equipment

(4) enter into cooperative agreements with the local coordinating entity or others for the purposes of conserving, interpreting, or enhancing natural and cultural resources in the heritage area.

(b) PROHIBITION OF CERTAIN REQUIREMENTS – The Secretary or heads of other Federal agencies may not, as a condition of the award of the assistance in section 7(a), require any recipient of the assistance to enact or modify any land use restriction.

SEC. 8. REQUIREMENTS FOR INCLUSION OF PRIVATE PROPERTY

(a) NOTIFICATION AND CONSENT OF PROPERTY OWNERS REQUIRED — No privately owned property shall be preserved, conserved, or promoted by the management plan for the Heritage Area until the owner of that private property has been notified in writing by the local coordinating entity and has given written consent for such preservation, conservation, or promotion to the coordinating entity.

(b) LACK OF EFFECT – No privately owned property shall be considered to be affected or required to comply with any project or plan of the local coordinating entity unless such owners directly and explicitly request, in writing, to be included in the specific project or plan.

SEC. 9 PRIVATE PROPERTY PROTECTIONS; SAVINGS PROVISIONS

(a) ACCESS TO PRIVATE PROPERTY— Nothing in this Act shall be construed to require any private property owner to permit public access (including Federal, State, or local government access) to such private property. Nothing in this subtitle shall be construed to modify any provision of Federal, State, or local law with regard to public access to or use of private lands.

(b) LIABILITY- Designation of the heritage area shall not be considered to create any liability, or to have any effect on any liability under any other law, of any private property owner with respect to any persons injured on such private property.

(c) RECOGNITION OF LACK OF AUTHORITY TO CONTROL LAND USE— Nothing in this Act shall be construed to modify, enlarge, or diminish any authority of Federal, State, or local governments to regulate land use nor shall it be construed to grant the powers of zoning, land use, or condemnation to the local coordinating entity.

(d) PARTICIPATION OF PRIVATE PROPERTY OWNERS IN HERITAGE AREA— Nothing in this Act shall be construed to require the owner of any private property located within the boundaries of the heritage area to participate in or be associated with the heritage area.

(e) COOPERATION AND AWARDS OF ASSISTANCE— The local coordinating entity may not, as a condition of cooperation or awarding of technical or financial assistance, require any partner in cooperation or recipient of assistance to enact or modify any land use restriction.

(f) ACQUISITION OF REAL PROPERTY— The local coordinating entity may not use Federal funds received under this Act to acquire real property or an interest in real property.

(g) REGULATIONS AND STANDARDS – Nothing in this Act shall —
  (1) be considered to impose or form the basis for imposition of any environmental, occupational, safety, or other rule, regulation, standard, license, or permit process that is different from those that would be applicable had the heritage area not been established; and
  (2) authorize or imply the reservation or appropriation of water or water rights for any purpose as a result of the establishment of this heritage area.

(h) EFFECT OF ESTABLISHMENT— The boundaries designated for the heritage area represent the area within which Federal funds appropriated for the purpose of this subtitle shall be expended. The establishment of the heritage area and its boundaries shall not be construed to provide any nonexisting regulatory authority on land use within the heritage area or its viewshed by the Secretary, the National Park Service, or the local coordinating entity.

(i) TRIBAL LANDS— Nothing in this Act shall restrict or limit a tribe from protecting cultural or religious sites on tribal lands.

(j) TRUST RESPONSIBILITIES— Nothing in this Act shall diminish the Federal Government's trust responsibilities or government-to-government obligations to any federally recognized Indian tribe.

(k) FISH AND WILDLIFE—Nothing in this Act shall diminish the authority of the State or tribal governments to manage fish and wildlife, including the regulation of fishing and hunting within the heritage area.

SEC. 10. SUNSET

The authority of the Secretary to provide assistance under this Act terminates on the date that is 15 years after the date of enactment of this Act.

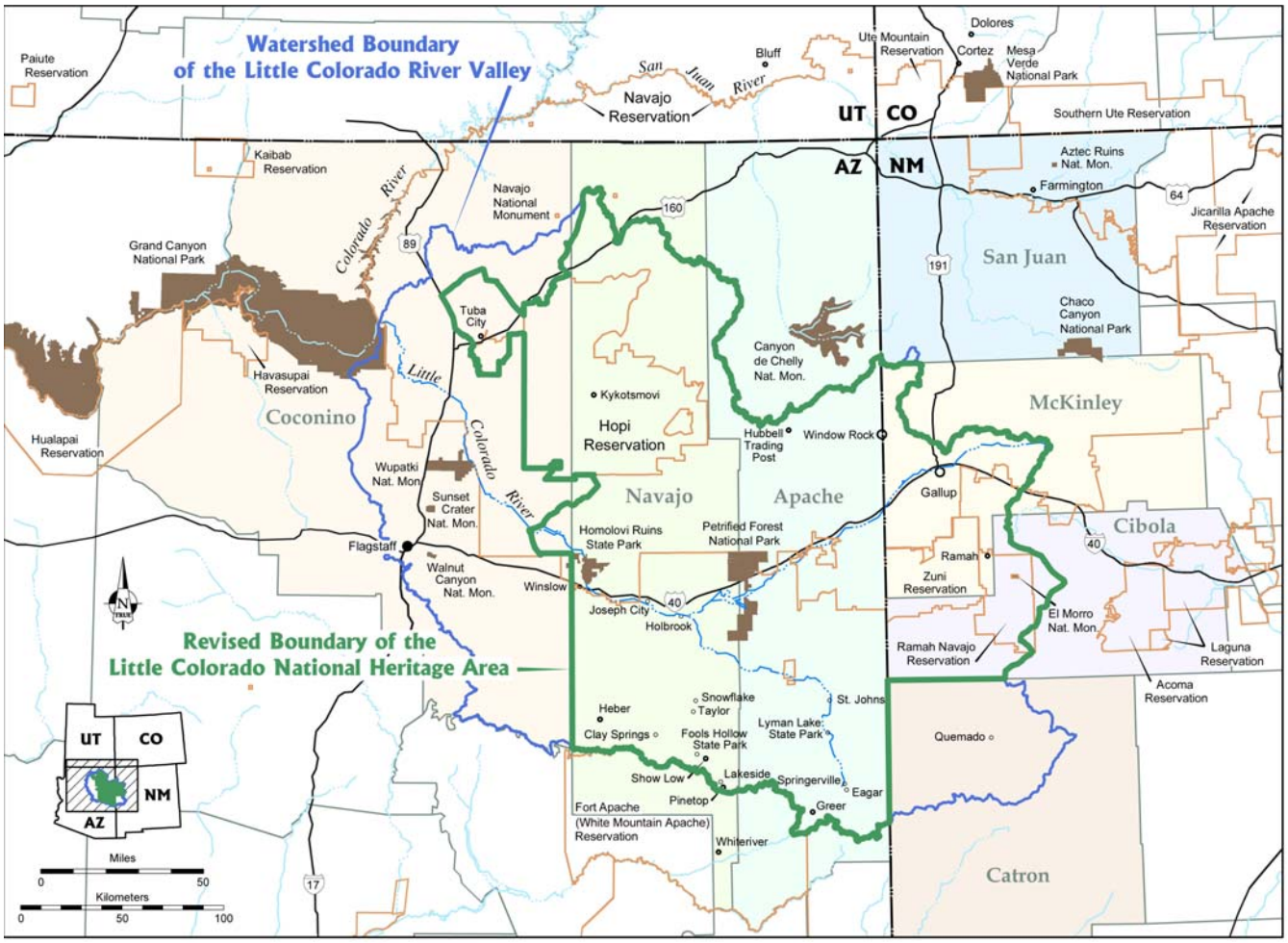
SEC. 11. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL - There is authorized to be appropriated to carry out this Act $10,000,000 of which not more than $1,000,000 may be authorized to be appropriated for any fiscal year.

(b) 50 PERCENT MATCH - Federal funding provided under this Act may not exceed 50 percent of the total cost of any assistance or grant provided or authorized under this Act.

appendix b

alternate heritage area map



appendix c

nps criteria for designation

National Park Service
National Heritage Areas

Critical Steps and Criteria for becoming a National Heritage Area

Critical Steps

The National Park Service has outlined ***four critical steps*** that need to be taken prior to congressional designation of a national heritage area. These steps are:

1. Completion of a suitability/feasibility study;
2. Public involvement in the suitability/feasibility study;
3. Demonstration of widespread public support among heritage area residents for the proposed designation; and
4. Commitment to the proposal from key constituents, which may include governments, industry, and private, non-profit organizations, in addition to area residents.

Suggested Criteria

The following components are helpful in assessing whether an area may qualify as a national heritage area. ***A suitability/ feasibility study should include analysis and documentation that illustrates that:***

1. The area has an assemblage of natural, historic, or cultural resources that together represent distinctive aspects of American heritage worthy of recognition, conservation, interpretation, and continuing use, and are best managed as such an assemblage through partnerships among public and private entities, and by combining diverse and sometimes noncontiguous resources and active communities;
2. The area reflects traditions, customs, beliefs, and folk life that are a valuable part of the national story;
3. The area provides outstanding opportunities to conserve natural, cultural, historic, and/ or scenic features;
4. The area provides outstanding recreational and educational opportunities;
5. Resources that are important to the identified theme or themes of the area retain a degree of integrity capable of supporting interpretation;
6. Residents, business interests, non-profit organizations, and governments within the proposed area that are involved in the planning, have developed a conceptual financial plan that outlines the roles for all participants including the federal government, and have demonstrated support for designation of the area;
7. The proposed management entity and units of government supporting the designation are willing to commit to working in partnership to develop the heritage area;
8. The proposal is consistent with continued economic activity in the area;
9. A conceptual boundary map is supported by the public; and
10. The management entity proposed to plan and implement the project is described.

For more information, visit our website:
http://www.cr.nps.gov/heritageareas/

appendix d

nps distinctive criteria

NATIONAL HERITAGE AREA
FEASIBILITY STUDY GUIDELINES

APPENDIX 1

EXAMPLES OF NATIONALLY DISTINCTIVE LANDSCAPES

Nationally distinctive landscapes are places that contain important regional and national stories that, together with their associated natural and/or cultural resources, enable the American people to understand, preserve and celebrate key components of the multi-faceted character of the Nation's heritage. The landscapes are often places that represent and contain identifiable assemblages of resources with integrity associated with one or more of the following:

1. important historical periods of the Nation and its people;
2. major events, persons and groups that contributed substantively to the Nation's history, customs, beliefs, and folklore;
3. distinctive cultures and cultural mores;
4. major industries and technological, business and manufacturing innovations/ practices, labor movements and labor advancements that contributed substantively to the economic growth of the Nation and the well-being of its people;
5. transportation innovations and routes that played central roles in important military actions, settlement, migration, and commerce;
6. social movements that substantively influenced past and present day society;
7. American art, crafts, literature and music;
8. distinctive architecture and architectural periods and movements;
9. major scientific discoveries and advancements; and
10. other comparable representations that together with their associated resources substantively contributed to the Nation's heritage.

appendix e

detailed budgets, 2009–2011

Proposed Budget for Year 1 (2009)

Income		**Notes**
Municipal governments	45,000	All cities, towns, counties
Private support	30,000	Center for Desert Archaeology
Grants	20,000	Tourism; other small
Memberships	5,000	5 corporate @ $500; 50 regular @ $50
Earned income	0	—
Program support	0	—
In-kind & volunteer	20,000	Non-cash
National Park Service	0	Only after designation
Total Income	120,000	
Cash Income	100,000	

Expenses		
Salaries and wages	50,000	One full-time admin. staff
Travel	12,000	Washington DC; 12K miles @ $0.50; perdiem
Insurance	2,500	Liability; Board
Office rental	0	Assumed to be donated
Equipment & supplies	5,000	Computers; copier; fax; office supplies
Printing & postage	7,500	Brochures; mailings
Program expenses	1,000	Establish new 501(c)(3)
Contracted services	2,000	Legal; accounting
Employee costs	12,500	Health insurance, payroll costs
Total Expenses	92,500	
Net gain (loss)	7,500	

Proposed Budget for Year 2 (2010)

Income		**Notes**
Municipal governments	45,000	All cities, towns, counties
Private support	30,000	Center for Desert Archaeology
Grants	20,000	Tourism; other small
Memberships	5,000	5 corporate @ $500; 50 regular @ $50
Earned income	0	—
Program support*	0	Income to support specific programs (see Program Expenses)
In-kind & volunteer	20,000	Non-cash
National Park Service	0	Only after designation
Total Income	120,000	
Cash Income	100,000	

Expenses		
Salaries and wages	54,000	One full-time admin. ftaff
Travel	12,000	Washington DC; 12K miles @ $0.50; perdiem
Insurance	2,500	Liability; Board
Office rental	0	Assumed to be donated
Equipment & supplies	5,000	Computers; copier; fax; office supplies
Printing & postage	7,500	Brochures; mailings
Program expenses*	0	—
Contracted services	2,000	Legal; accounting
Employee costs	13,500	Health insurance, payroll costs
Total Expenses	96,500	
Net gain (loss)	3,500	

*Program Revenue: assumes that money is received for implementing a specific project or program. That program will not be initiated unless revenue is received first. For planning purposes, an equal and offsetting amount is included in Program Expenses. It is possible that some programs will generate some Earned Income.

Proposed Budget for Year 3 (2011)

Income		**Notes**
Municipal governments	45,000	All cities, towns, counties
Private support	25,000	Need to identify potential sources
Grants	90,000	Heritage Fund ($80K); Small ($10K)
Memberships	15,000	10 corporate @ $500; 200 regular @ $50
Earned income	6,000	Sales of calendars, CDs, books, etc.
Program support*	20,000	Income to support specific programs (see Program Expenses)
In-kind & volunteer	30,000	Non-cash
National Park Service	200,000	Congressional appropriation for Management Plan
Total Income	431,000	
Cash Income	401,000	
Expenses		
Salaries and wages	147,000	Exec. Dir; Prog Mgr; Admin. Asst
Travel	15,000	Washington DC; 16K miles @ $0.50; perdiem
Insurance	10,000	Liability ($8K); Board ($2K); [Liability insurance increases with total revenue]
Office rental	20,000	1000 sq. ft * $20 per sq. ft. annually
Equipment & supplies	12,200	Computers (2); copier; fax; office supplies
Printing & postage	9,600	Brochures; mailings
Program expenses*	20,000	e.g. Regional Festival; Calendar. Only if Program Support is provided.
Contracted services	90,000	Specialists: Planning; Econ.; Archaeo.; History; Natural Res.
Management plan	40,000	Planning conf.; Printing of Plan & Exec. Summary
Employee costs	36,750	Health insurance, payroll costs
Total Expenses	400,550	
Net gain (loss)	450	

*Program Revenue: assumes that money is received for implementing a specific project or program. That program will not be initiated unless revenue is received first. For planning purposes, an equal and offsetting amount is included in Program Expenses. It is possible that some programs will generate some Earned Income.