

*Mormon Pioneer National Heritage Area
Management Plan
Supporting Reference Materials*

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October 8, 2009

The Motor Cities-Automobile National Heritage Area's General Management Plan provided the framework and format for the Mormon Pioneer National Heritage Area Plan. We gratefully acknowledge their contribution.

The General Management Plan was made possible through funding provided by the National Park Service, the George S. and Dolores Dore' Eccles Foundation, the Governor's Office of Economic Development, and the National Trust for Historic Preservation.

Contents

This binder contains materials to support the Mormon Pioneer National Heritage Area (MPNHA) Management Plan (MP). Behind each green sheet of paper, you will find the following supporting documents in this order:

The National Heritage Areas Act of 2006 Public L. No. 109-338, 120 STAT. 1738

MPNHA State Legislation

Utah State University Charrette

A Sample Inventory

MPNHA Supporting Historic Information

Scenic Byway 12 General Management Plan

Utah State University Heritage Products Study

Environmental Assessment

National Heritage Areas Act of 2006

Public L. No. 109-338, 120 STAT. 1738

Subtitle D—Mormon Pioneer National Heritage Area

SEC. 251. SHORT TITLE.

This subtitle may be cited as the ‘Mormon Pioneer National Heritage Area Act.’

SEC. 252. FINDINGS AND PURPOSE.

(a) Findings- Congress finds that—

(1) the historical, cultural, and natural heritage legacies of Mormon colonization and settlement are nationally significant;

(2) in the area starting along the Highway 89 corridor at the Arizona border, passing through Kane, Garfield, Piute, Sevier, Wayne, and Sanpete Counties in the State of Utah, and terminating in Fairview, Utah, there are a variety of heritage resources that demonstrate—

(A) the colonization of the western United States; and

(B) the expansion of the United States as a major world power;

(3) the great relocation to the western United States was facilitated by—

(A) the 1,400-mile trek from Illinois to the Great Salt Lake by the Mormon pioneers; and

(B) the subsequent colonization effort in Nevada, Utah, the southeast corner of Idaho, the southwest corner of Wyoming, large areas of southeastern Oregon, much of southern California, and areas along the eastern border of California;

(4) the 250-mile Highway 89 corridor from Kanab to Fairview, Utah, contains some of the best features of the Mormon colonization experience in the United States;

(5) the landscape, architecture, traditions, beliefs, folk life, products, and events along Highway 89 convey the heritage of the pioneer settlement;

(6) the Boulder Loop, Capitol Reef National Park, Zion National Park, Bryce Canyon National Park, and the Highway 89 area convey the compelling story of how early settlers—

(A) interacted with Native Americans; and

(B) established towns and cities in a harsh, yet spectacular, natural environment;

(7) the colonization and settlement of the Mormon settlers opened up vast amounts of natural resources, including coal, uranium, silver, gold, and copper;

(8) the Mormon colonization played a significant role in the history and progress of the development and settlement of the western United States; and

(9) the artisans, crafters, innkeepers, outfitters, farmers, ranchers, loggers, miners, historic landscape, customs, national parks, and architecture in the Heritage Area make the Heritage Area unique.

(b) Purpose- The purpose of this subtitle is to establish the Heritage Area to—

(1) foster a close working relationship with all levels of government, the private sector, residents, business interests, and local communities in the State;

(2) empower communities in the State to conserve, preserve, and enhance the heritage of the communities while strengthening future economic opportunities;

(3) conserve, interpret, and develop the historical, cultural, natural, and recreational resources within the Heritage Area; and

(4) expand, foster, and develop heritage businesses and products relating to the cultural heritage of the Heritage Area.

SEC. 253. DEFINITIONS.

In this subtitle:

(1) ALLIANCE- The term 'Alliance' means the Utah Heritage Highway 89 Alliance.

(2) HERITAGE AREA- The term 'Heritage Area' means the Mormon Pioneer National Heritage Area established by section 254(a).

(3) LOCAL COORDINATING ENTITY- The term 'local coordinating entity' means the local coordinating entity for the Heritage Area designated by section 255(a).

(4) MANAGEMENT PLAN- The term 'management plan' means the plan developed by the local coordinating entity under section 256(a).

(5) SECRETARY- The term 'Secretary' means the Secretary of the Interior.

(6) STATE- The term 'State' means the State of Utah.

SEC. 254. MORMON PIONEER NATIONAL HERITAGE AREA.

(a) Establishment- There is established the Mormon Pioneer National Heritage Area.

(b) Boundaries-

(1) IN GENERAL- The boundaries of the Heritage Area shall include areas in the State—

(A) that are related to the corridors—

(i) from the Arizona border northward through Kanab, Utah, and to the intersection of Highway 89 and Highway 12, including Highway 12 and Highway 24 as those highways loop off Highway 89 and rejoin Highway 89 at Sigurd;

(ii) from Highway 89 at the intersection of Highway 12 through Panguitch, Junction, Marysvale, and Sevier County to Sigurd;

(iii) continuing northward along Highway 89 through Axtell and Sterling, Sanpete County, to Fairview, Sanpete County, at the junction with Utah Highway 31; and

(iv) continuing northward along Highway 89 through Fairview and Thistle Junction, to the junction with Highway 6; and

(B) including the following communities: Kanab, Mt. Carmel, Orderville, Glendale, Alton, Cannonville, Tropic, Henrieville, Escalante, Boulder, Teasdale, Fruita, Hanksville, Torrey, Bicknell, Loa, Hatch, Panguitch, Circleville, Antimony, Junction, Marysvale, Koosharem, Sevier, Joseph, Monroe, Elsinore, Richfield, Glenwood, Sigurd, Aurora, Salina,

Mayfield, Sterling, Gunnison, Fayette, Manti, Ephraim, Spring City, Mt. Pleasant, Moroni, Fountain Green, and Fairview.

(2) MAP- The Secretary shall prepare a map of the Heritage Area, which shall be on file and available for public inspection in the office of the Director of the National Park Service.

(3) NOTICE TO LOCAL GOVERNMENTS- The local coordinating entity shall provide to the government of each city, town, and county that has jurisdiction over property proposed to be included in the Heritage Area written notice of the proposed inclusion.

(c) Administration- The Heritage Area shall be administered in accordance with this subtitle.

SEC. 255. DESIGNATION OF ALLIANCE AS LOCAL COORDINATING ENTITY.

(a) In General- The Board of Directors of the Alliance shall be the local coordinating entity for the Heritage Area.

(b) Federal Funding-

(1) AUTHORIZATION TO RECEIVE FUNDS- The local coordinating entity may receive amounts made available to carry out this subtitle.

(2) DISQUALIFICATION- If a management plan is not submitted to the Secretary as required under section 256 within the time period specified in that section, the local coordinating entity may not receive Federal funding under this subtitle until a management plan is submitted to the Secretary.

(c) Use of Federal Funds- The local coordinating entity may, for the purposes of developing and implementing the management plan, use Federal funds made available under this subtitle—

(1) to make grants to the State, political subdivisions of the State, nonprofit organizations, and other persons;

(2) to enter into cooperative agreements with or provide technical assistance to the State, political subdivisions of the State, nonprofit organizations, and other organizations;

(3) to hire and compensate staff;

(4) to obtain funds from any source under any program or law requiring the recipient of funds to make a contribution in order to receive the funds; and

(5) to contract for goods and services.

(d) Prohibition of Acquisition of Real Property- The local coordinating entity shall not use Federal funds received under this subtitle to acquire real property or any interest in real property.

SEC. 256. MANAGEMENT OF THE HERITAGE AREA.

(a) Heritage Area Management Plan-

(1) DEVELOPMENT AND SUBMISSION FOR REVIEW- Not later than 3 years after the date on which funds are made available to carry out the subtitle, the local coordinating entity, with public participation, shall develop and submit for review to the Secretary a management plan for the Heritage Area.

(2) CONTENTS- The management plan shall—

(A) present comprehensive recommendations for the conservation, funding, management, and development of the Heritage Area;

(B) take into consideration Federal, State, county, and local plans;

(C) involve residents, public agencies, and private organizations in the Heritage Area;

(D) include a description of actions that units of government and private organizations are recommended to take to protect the resources of the Heritage Area;

(E) specify existing and potential sources of Federal and non-Federal funding for the conservation, management, and development of the Heritage Area; and

(F) include—

(i) an inventory of resources in the Heritage Area that—

(I) includes a list of property in the Heritage Area that should be conserved, restored, managed, developed, or maintained because of the historical, cultural, or natural significance of the property as the property relates to the themes of the Heritage Area; and

(II) does not include any property that is privately owned unless the owner of the property consents in writing to the inclusion;

(ii) a recommendation of policies for resource management that consider the application of appropriate land and water management techniques, including policies for the development of intergovernmental cooperative agreements to manage the historical, cultural, and natural resources and recreational opportunities of the Heritage Area in a manner that is consistent with the support of appropriate and compatible economic viability;

(iii) a program for implementation of the management plan, including plans for restoration and construction;

(iv) a description of any commitments that have been made by persons interested in management of the Heritage Area;

(v) an analysis of means by which Federal, State, and local programs may best be coordinated to promote the purposes of this subtitle; and

(vi) an interpretive plan for the Heritage Area.

(3) APPROVAL OR DISAPPROVAL OF THE MANAGEMENT PLAN-

(A) IN GENERAL- Not later than 180 days after submission of the management plan by the local coordinating entity, the Secretary shall approve or disapprove the management plan.

(B) DISAPPROVAL AND REVISIONS-

(i) IN GENERAL- If the Secretary disapproves the management plan, the Secretary shall—

(I) advise the local coordinating entity, in writing, of the reasons for the disapproval; and

(II) make recommendations for revision of the management plan.

(ii) APPROVAL OR DISAPPROVAL- The Secretary shall approve or disapprove proposed revisions to the management plan not later than 60 days after receipt of the revisions from the local coordinating entity.

(b) Priorities- The local coordinating entity shall give priority to the implementation of actions, goals, and policies set forth in the management plan, including—

(1) assisting units of government, regional planning organizations, and nonprofit organizations in—

(A) conserving the historical, cultural, and natural resources of the Heritage Area;

(B) establishing and maintaining interpretive exhibits in the Heritage Area;

(C) developing recreational opportunities in the Heritage Area;

(D) increasing public awareness of and appreciation for the historical, cultural, and natural resources of the Heritage Area;

(E) restoring historic buildings that are—

(i) located within the boundaries of the Heritage Area; and

(ii) related to the theme of the Heritage Area; and

(F) ensuring that clear, consistent, and environmentally appropriate signs identifying access points and sites of interest are put in place throughout the Heritage Area; and

(2) consistent with the goals of the management plan, encouraging economic viability in the affected communities by appropriate means, including encouraging and soliciting the development of heritage products.

(c) Consideration of Interests of Local Groups- In developing and implementing the management plan, the local coordinating entity shall consider the interests of diverse units of government, businesses, private property owners, and nonprofit organizations in the Heritage Area.

(d) Public Meetings- The local coordinating entity shall conduct public meetings at least annually regarding the implementation of the management plan.

(e) Annual Reports- For any fiscal year in which the local coordinating entity receives Federal funds under this subtitle, the local coordinating entity shall submit to the Secretary an annual report that describes—

- (1) the accomplishments of the local coordinating entity;
- (2) the expenses and income of the local coordinating entity; and
- (3) the entities to which the local coordinating entity made any grants during the year for which the report is made.

(f) Cooperation With Audits- For any fiscal year in which the local coordinating entity receives Federal funds under this subtitle, the local coordinating entity shall—

- (1) make available for audit by Congress, the Secretary, and appropriate units of government all records and other information relating to the expenditure of the Federal funds and any matching funds; and
- (2) require, with respect to all agreements authorizing expenditure of the Federal funds by other organizations, that the receiving organizations make available for audit all records and other information relating to the expenditure of the Federal funds.

(g) Delegation-

- (1) IN GENERAL- The local coordinating entity may delegate the responsibilities and actions under this subtitle for each area identified in section 254(b)(1).
- (2) REVIEW- All delegated responsibilities and actions are subject to review and approval by the local coordinating entity.

SEC. 257. DUTIES AND AUTHORITIES OF FEDERAL AGENCIES.

(a) Technical Assistance and Grants-

- (1) IN GENERAL- The Secretary may provide technical assistance and, subject to the availability of appropriations, grants to—
 - (A) units of government, nonprofit organizations, and other persons, at the request of the local coordinating entity; and
 - (B) the local coordinating entity, for use in developing and implementing the management plan.
- (2) PROHIBITION OF CERTAIN REQUIREMENTS- The Secretary may not, as a condition of the award of technical assistance or grants under this subtitle, require any recipient of the technical assistance or a grant to enact or modify any land use restriction.
- (3) DETERMINATIONS REGARDING ASSISTANCE- The Secretary shall determine whether a unit of government, nonprofit

organization, or other person shall be awarded technical assistance or grants and the amount of technical assistance—

(A) based on the extent to which the assistance—

(i) fulfills the objectives of the management plan; and

(ii) achieves the purposes of this subtitle; and

(B) after giving special consideration to projects that provide a greater leverage of Federal funds.

(b) Provision of Information- In cooperation with other Federal agencies, the Secretary shall provide the public with information concerning the location and character of the Heritage Area.

(c) Other Assistance- The Secretary may enter into cooperative agreements with public and private organizations for the purposes of implementing this subtitle.

(d) Duties of Other Federal Agencies- A Federal entity conducting any activity directly affecting the Heritage Area shall—

(1) consider the potential effect of the activity on the management plan; and

(2) consult with the local coordinating entity with respect to the activity to minimize the adverse effects of the activity on the Heritage Area.

SEC. 258A. 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 management entity and has given written consent for such preservation, conservation, or promotion to the management entity.

(b) Landowner Withdraw- Any owner of private property included within the boundary of the Heritage Area shall have their property immediately removed from the boundary by submitting a written request to the management entity.

SEC. 258B. PRIVATE PROPERTY PROTECTION.

(a) Access to Private Property- Nothing in this title shall be construed to—

(1) require any private property owner to allow public access (including Federal, State, or local government access) to such private property; or

(2) modify any provision of Federal, State, or local law with regard to public access to or use of private property.

(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 Authority To Control Land Use- Nothing in this title shall be construed to modify the authority of Federal, State, or local governments to regulate land use.

(d) Participation of Private Property Owners in Heritage Area- Nothing in this title 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) Effect of Establishment- The boundaries designated for the Heritage Area represent the area within which Federal funds appropriated for the purpose of this title may be expended.

SEC. 259. AUTHORIZATION OF APPROPRIATIONS.

(a) In General- There is authorized to be appropriated to carry out this subtitle \$10,000,000, to remain available until expended, of which not more than \$1,000,000 may be authorized to be appropriated for any fiscal year.

(b) Federal Share- The Federal share of the cost of any activity carried out using funds made available under this subtitle shall not exceed 50 percent.

SEC. 260. TERMINATION OF AUTHORITY.

The authority of the Secretary to provide assistance under this subtitle terminates on the date that is 15 years after the date of enactment of this Act.

MPNHA State Legislation

MPNHA State Legislation

53B-18-1001. Definitions.

As used in this part:

- (1) “Alliance” means the Utah Heritage Highway 89 Alliance.
- (2) “Center” means the Mormon Pioneer Heritage Center.
- (3) “Counties” means the counties of Sanpete, Sevier, Piute, Wayne, Garfield, and Kane.

Enacted by Chapter 23, 2004 General Session

53B-18-1002. Establishment of the center — Purpose — Duties and responsibilities.

(1) There is established the Mormon Pioneer Heritage Center in connection with Utah State University.

(2) The purpose of the center is to coordinate interdepartmental research and extension efforts in recreation, heritage tourism, and agricultural extension service and to enter into cooperative contracts with the United States Departments of Agriculture and Interior, state, county, and city officers, public and private organizations, and individuals to enhance Mormon pioneer heritage.

(3) The center has the following duties and responsibilities:

(a) to support U.S. Congressional findings that the landscape, architecture, traditions, products, and events in the counties convey the heritage of pioneer settlements and their role in agricultural development;

(b) to coordinate with extension agents in the counties to assist in the enhancement of heritage businesses and the creation of heritage products;

(c) to foster a close working relationship with all levels of government, the private sector, residents, business interests, and local communities;

(d) to support U.S. Congressional findings that the historical, cultural, and natural heritage legacies of Mormon colonization and settlement are nationally significant;

(e) to encourage research and studies relative to the variety of heritage resources along the 250-mile Highway 89 corridor from Fairview to Kanab, Utah, and Highways 12 and 24, the All American Road, to the extent those resources demonstrate:

(i) the colonization of the western United States; and

(ii) the expansion of the United States as a major world power;

(f) to demonstrate that the great relocation to the western United States was facilitated by:

(i) the 1,400 mile trek from Illinois to the Great Salt Lake by the Mormon Pioneers; and

(ii) the subsequent colonization effort in Nevada, Utah, the southeast corner of Idaho, the southwest corner of Wyoming, large areas of southeastern Oregon, much of southern California, and areas along the eastern border of California; and

(g) to assist in interpretive efforts that demonstrate how the Boulder Loop, Capitol Reef National Park, Zion National Park, Bryce Canyon National Park, and the Highway 89 area convey the compelling story of how early settlers:

(i) interacted with Native Americans; and

(ii) established towns and cities in a harsh, yet spectacular, natural environment.

(4) The center, in collaboration with the U.S. Department of Interior, the National Park Service, the U.S. Department of Agriculture, the U.S. Forest Service, the Utah Department of Community and Culture, the Utah Division of State History, and the alliance and its intergovernmental local partners, shall:

(a) assist in empowering communities in the counties to conserve, preserve, and enhance the heritage of the communities while strengthening future economic opportunities;

(b) help conserve, interpret, and develop the historical, cultural, natural, and recreational resources within the counties; and

(c) expand, foster, and develop heritage businesses and products relating to the cultural heritage of the counties.

(5) The center, in collaboration with the U.S. Department of the Interior, the National Park Service, and with funding from the alliance, shall develop a heritage management plan. Amended by Chapter 148, 2005 General Session

72-4-209. Mormon Pioneer Heritage Area.

(1) There is established a state heritage area known as the Mormon Pioneer Heritage Area comprising a section of Route 89 beginning in Fairview to Kanab and including the Boulder Loop in Garfield and Wayne Counties.

(2) In addition to other official designations, the Department of Transportation shall designate the portions of the highway identified in Subsection (1) as the Mormon Pioneer Heritage Area on future state highway maps.

Enacted by Chapter 127, 2004 General Session

The Utah State University Charrette Introduction

The Utah State University Department of Landscape Architecture & Environmental Planning is an important partner in the MPNHA. This Charrette for Sanpete County is the first of six projects that will be completed in Little Denmark, Sevier Valley, Headwaters, Under the Rim, and Boulder Loop. It is included in the Supporting Documents because it represents the quality and scope this department brings to the MPNHA and the significance of trails, parks, open space and downtown planning throughout the heritage Region.

"IT IS NOT JUST A ROAD...
IT IS MUCH MORE"
FROM THE MOVIE "CARS"



2007 CHARRETTE
DEPARTMENT OF LANDSCAPE ARCHITECTURE &
ENVIRONMENTAL PLANNING & USU EXTENSION
UTAH STATE UNIVERSITY

A LOOK AT
U.S. HERITAGE HIGHWAY 89
IN SANPETE COUNTY, UTAH

2007 LAEP CHARRETTE

A LOOK AT U.S. HERITAGE HIGHWAY 89

This project was completed by students in the Landscape Architecture and Environmental Planning Department for the U.S. Heritage Highway 89 Corridor thru Sanpete County and the communities of Fairview, Mount Pleasant, Spring City, Ephraim, Manti, and Gunnison. The duration of the project was five days (February 5 thru February 9, 2007).

Partners, participants and contributors of this project include:

Landscape Architecture & Environmental Planning, Utah State University
USU Extension/Rural Intermountain Planning Program

Utah Main Street

U.S. 89 Heritage Highway Corridor

Fairview City, Mayor and City Council

Mount Pleasant Mayor and City Council

Spring City Mayor and City Council

Ephraim City Mayor and City Council

Manti City Mayor and City Council

Gunnison City Mayor and City Council

Sanpete County Council

Utah Department of Transportation

The Governor's Office of Planning and Budget

U.S. Forest Service

Private Practitioners

2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

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2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

SANPETE CO. U.S. 89 CORRIDOR

Introduction

The present condition of Sanpete Valley is a product of geologic forces, wind, water, successions of plant and wildlife communities, fire and human activity. The stories these forces left behind are evident in the landscape today: they await the telling. Heritage story chapters include:

- Physical and historical geology
- Hydrology
- Vegetation
- Wildlife
- Native Americans
- Trappers and fur traders
- Mormon settlement to present

These stories speak of past landscape abuse, adaptive farming practices, restoration of public lands and a rich culture all within a stunningly beautiful setting. But the story isn't finished, much remains to be done. Present authors are challenged to preserve, enhance and restore the valley landscape, its culture and economic viability.

Wildlife biologist Aldo Leopold noted more than 50 years ago that the key to a viable economy was a healthy viable physical environment.

Goals

Promote healthy ecosystems within Sanpete Valley by preserving, enhancing, or restoring

- riparian (river) corridors
- water quality
- critical wildlife habitats and corridors
- productive soils

Direct urban growth away from wildlife habitats and prime agricultural lands into existing communities

- agricultural and urban buffers

Promote sustainable productive agricultural practices by preserving enhancing or restoring

- prime agricultural land
- water quality and quantity
- opportunities to explore alternative crops or agricultural products

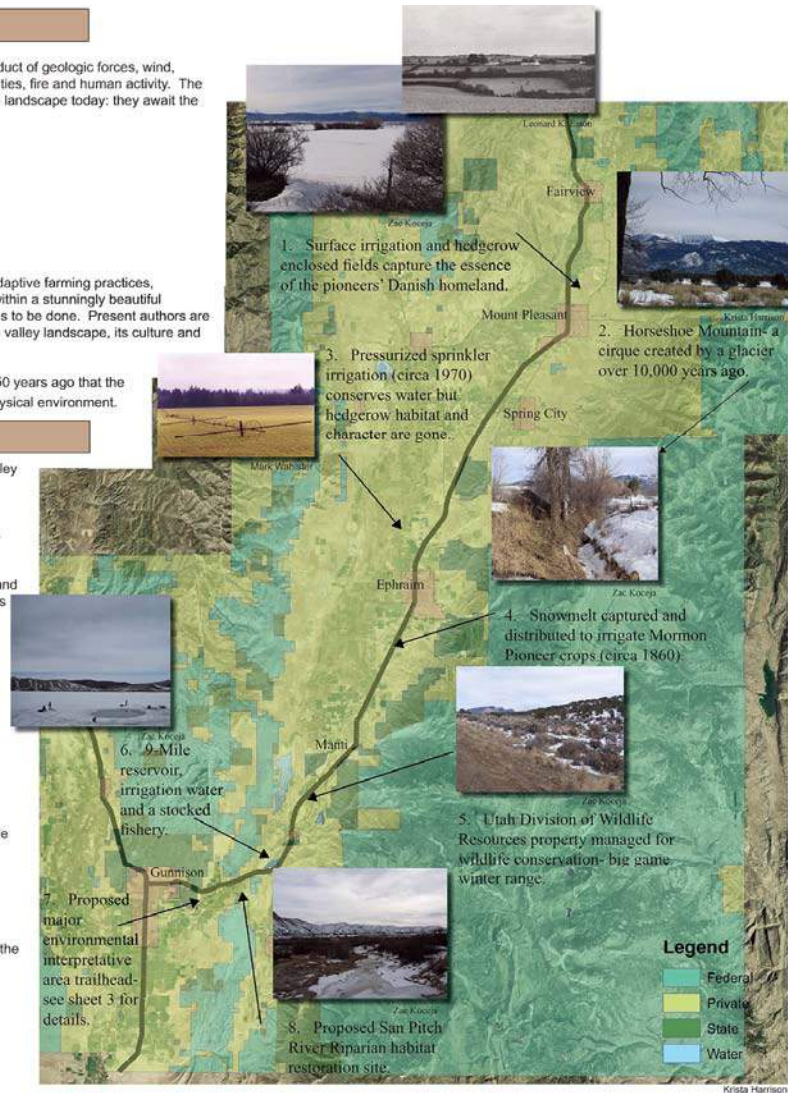
Increase outdoor recreation and education opportunities for residents and visitors compatible with the needs of wildlife

Improve public access to and awareness of recreational opportunities

Accommodate a variety of trail user types in appropriate environments and separate them to the extent possible for safety

Link trails throughout Sanpete Valley

Control exotic plants



Methods

We used several methods to create our final boards. The first method was a site visit to Sanpete Valley where we obtained photographs, visited with the locals, and noted vegetation, roads, waterways, and habitat character. Then in the second method we downloaded information in GIS of Sanpete Valley's soil, vegetation type, critical habitat, land ownership, cities, major roads, trails, railroad, and lakes and layered them to create wildlife habitat areas. Next, we combined the site visit and GIS information to explore recreational opportunities and critical areas that should be preserved for wildlife in Sanpete Valley. With this information along with hand and sketch-up drawings of purposed changes, we have been able to compose the final presentation of the Sanpete Valley.



SanpeteCounty.org



Judd Patterson



Adventure Travel Media Source



Wikipedia.org



Photojohn, John Schaffer



Craig Johnson



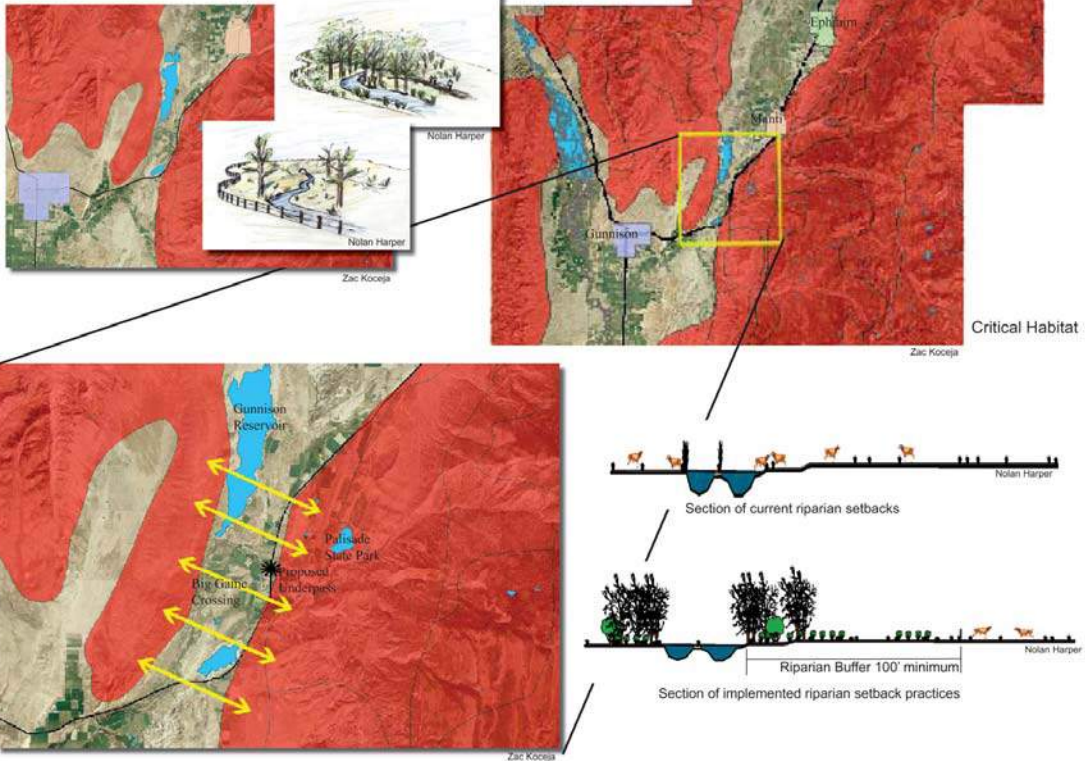
Challenges / Opportunities

Challenges

- A relatively stagnant economy
- Limited funds to implement the plan and recommendations
- The potential impacts of increased tourism
- Restoration of habitats degraded over the past 150 years
- Altered stream flows
- Decadent riparian woodlands
- Juniper intrusion into shrub steppe grasslands
- Limited natural wildlife corridors
- To accommodate safe wildlife movement across Sanpete Valley
- Big game automobile conflicts along the entire length of highway 89 in the valley
- Invasive exotic vegetation
- Many plan proposals occur on private property involving numerous land owners

Opportunities

- Public support and interest in parks, open space, habitat and trails
- Cooperative spirit among valley communities
- Well tended largely unfragmented farms
- Limited urban sprawl
- Extensive network of existing trails
- Access to recreation opportunities on adjacent state and federal lands
- Opportunities to link trails between valley communities
- Phased plan implementation



Craig Johnson



Nolan Harper

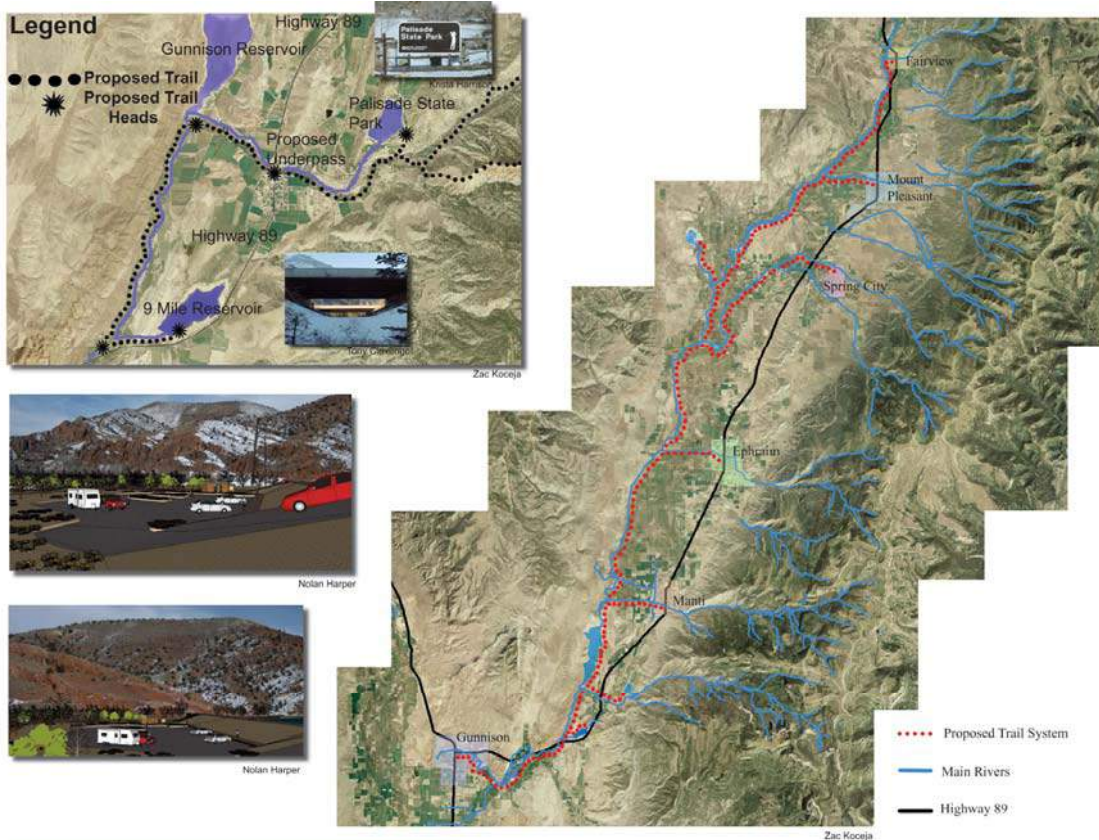


Nolan Harper



Craig Johnson





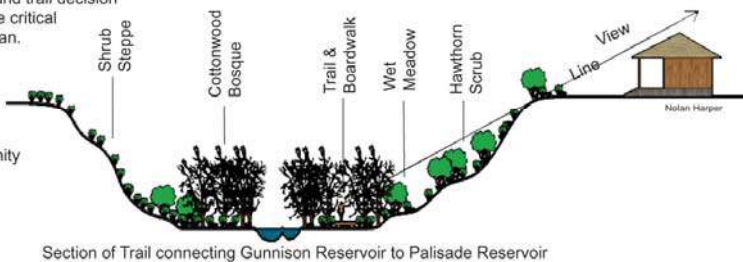
Implementation

The most important parks, open space, habitat and trail decision to be made is to preserve enhance or restore the critical landscape features shown on the open space plan. The plan illustrates the community's vision of a desired future pattern of parks open space habitat and trails in the valley. Detailed design recommendations as shown on these drawings are illustrative; they may be modified over time as the landscape context and community values change.

Most of the recommendations occur on private property and affect land owners. There are a variety of options for implementing an open space plan under these circumstances including

- Land acquisition
- Conservation easements
- Federal and State programs
- Zoning
- Voluntary participation
- Management agreements with land owners

In most cases a combination of these techniques will be used. Partnerships between public and private parties interested in conservation are usually most successful at achieving the desired results.



NORTH CORRIDOR U.S. 89 LAND USE

Sanpete, a structural basin between plateaus rather than a river-cut valley, depends on adjacent highlands for sustenance, for life itself. Water is the key. Stored as winter snow, it is released down side canyon streams and distributed in irrigation systems grading off alluvial fans. Water and soil have served as base for agriculture, valley and plateau as backdrop for townscape and society. They continue to provide building materials, fuel and food, recreation and water. To the Mormon pioneer, this Sanpete became both wilderness of Sinai and Promised Land. (Sanpete Scenes p.8)

This valley contains several small towns making up a network of community members. To a visitor it is a step back in time to a simpler, pleasanter way of life. Agriculture is the historical base of life in this valley. This is evident to any traveler on the way through the valley on Heritage Highway 89. In a time where development has taken over America this is a piece that has remained much the same. It should be in the best interest of the citizens of Sanpete County to embrace change with a vision to maintain the character which their home is known for.

Agricultural Land

Agricultural land provides more than simply food production and economic benefits. It also provides open space, wildlife habitat, and water recharge, along with other amenities such as visual quality and landscape diversity. Deer, elk, and many species of birds rely on ranches or farms. Rain and snowmelt seep back into the groundwater in agricultural areas instead of being evaporated on driveways and parking lots. As Utah's population continues to grow, more and more agricultural land is being lost to development. ("The Farm Protection Toolbox." 13 Dec. 2004).

Wetlands

Wetlands are transition areas between dry land and open water where the water table is usually at or near the surface or the land is covered by shallow water all or part of the year. All wetlands have three common characteristics: 1) Wetlands are sometimes or always covered with water. 2) Wetland soils are hydric, meaning they are poorly drained and contain little or no oxygen. 3) Wetlands contain plants called hydrophytes or "water-lovers." These plants can survive with little or no oxygen (Lock 1993). Wetlands play a vital role in a healthy ecosystem. They control flooding, store floodwater, provide a home to a diverse population of wildlife, filter pollutants from runoff, and provide many recreational opportunities (Utah Department of Natural Resources May 2000)

Cultural and Historic Resources

Urban and rural cultural and historic resources encompass a variety of buildings, objects, landscapes, etc. These non-renewable resources enhance our understanding and appreciation of our heritage. Preservation of historic and cultural resources can increase our knowledge of history, provide scientific data, and stimulate economies through tourism. Often it is up to the community to decide what they value and desire to protect as historical or cultural resources. Protecting these resources preserves the character and quality of a community and its values. Careful planning can prevent irreversible damage to historic and cultural resources. The National Park Service promotes a planning system that identifies, documents, and evaluates these resources. It involves historical research, inventory and documentation of existing conditions, site analysis and evaluation of significance, and the development of a management and maintenance strategy for the resource. Community efforts can mimic the National Park Service's planning system in their own preservation efforts (National Park Service 3 Dec. 2004).

Watershed

A watershed is a land area that catches rain or snow and drains to a common point. A system of drainage pathways, either underground or on the surface, move the water. In arid regions such as Utah, the water often drains into a lake or wetland. A healthy watershed performs a number of vital functions. Watersheds capture, store, and release water, filter sediments and pollutants, cycle nutrients through the environment, and support many living organisms, including humans. (Know Your Watershed 16 Dec. 2004).

Wildlife Habitat

A habitat is a place where an animal (or plant) lives and finds water, food, shelter and room to grow and reproduce. A habitat can be a wetland, an alfalfa field or even a park (Urban Wildlife Habitat). As the population of Utah grows, so does the demand for houses, schools, stores, and roads. This growth puts pressure on critical habitat and increases the chances for conflict with wildlife. The amount of wildlife habitat statewide has been in decline in recent years. Some of the most significant reasons for this decline is the loss of open space to urbanization, agricultural conversion, draining of wetlands and other development patterns which often fragment habitat (Wilmer 2000).



Dept. of Landscape Architecture & Environmental Planning-Rural Intermountain Planning Program-Utah Main Street-U.S. 89 Heritage Highway Corridor-Mayors & City Councils-Sanpete County-UDOT



NORTH CORRIDOR U.S. 89 LANDSCAPE CHARACTER



Fairview

Often times, the rustic qualities that add aesthetic benefits are overlooked when they become common. Old Farm equipment, weathered structures, and other home-town elements are valuable items. By keeping these elements within the community helps to keep the rustic atmosphere that so many cherish about this county.

The juniper fencing gives a great example of an old historical district. These fences are a small part of the esthetics to these towns, but add a great deal of history to these small towns.



When the pioneers started to develop the land, homesteads and farms in the midst of trees in groupings. When you look across the land the in the rural setting you will notice that you don't see suburban sprawl, but you do see tiny groups of trees, which are the settlements of old.

Mount Pleasant



Spring City

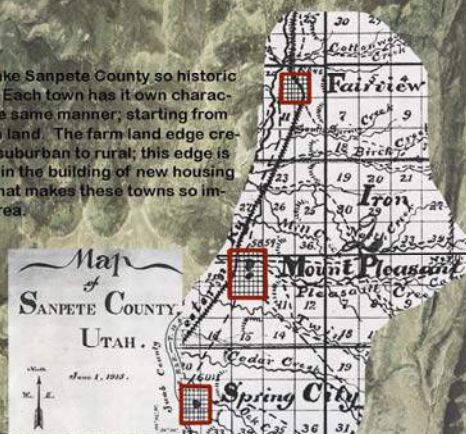


The historic architecture within the towns creates harmony between the communities and adds to the rustic nature. The organic nature of the buildings is visible through non-mechanical techniques like un-finished mortar and hand-quarried stone. Carrying these same elements into future designs can only help maintain the harmony along historic Highway 89.



One of the main things that make Sanpete County so historic is the way the towns are built. Each town has its own characteristics, but each is built in the same manner; starting from main street to the outside farm land. The farm-land edge creates a strong distinction from suburban to rural; this edge is no longer look at as important in the building of new housing developments. This edge is what makes these towns so important to the history of this area.

Ephraim



Dept. of Landscape Architecture & Environmental Planning • Rural Intermountain Planning Program • Utah Main Street • U.S. 89 Heritage Highway Corridor • Mayors & City Councils • Sanpete County • UDOT

U.S. 89 Heritage Highway **Charrette '07**

Sanpete County

U.S. 89/Sanpete County: North Highway Corridor Analysis & Plan

Utah State UNIVERSITY

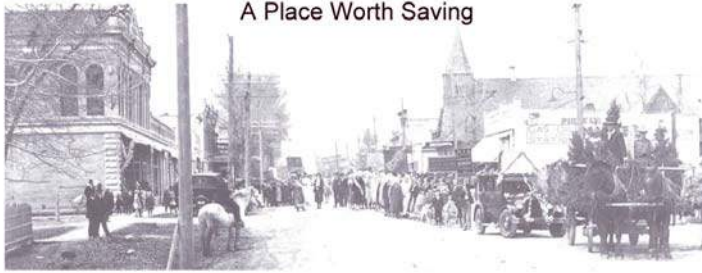
Team Members: J. H. Thompson, K. Johnson, A. Salmons, A. Crowder, S. Hult, A. Carr, B. Erickson, S. Mathews, T. McMurdo, W. Morris

"It's not just a road. It's much more."



2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

FAIRVIEW



A Place Worth Saving

Small towns are swiftly becoming a thing of the past where once they were the standard. More and more the small towns of America have given way to suburbia's sprawl and have lost all identity and character that once made them truly "a place worth living." A place where you could raise a family and not have to worry about anything more than if a cow had beaten them in a tipping contest. Fairview is one of a declining number of these small towns and one worth saving. But as change is an inevitable part of life, that doesn't mean our towns identities have to be discarded along the way. Our historical sites and open green space are valuable treasures that can not be replaced once they are lost. Future generations can and will truly benefit from knowing where they came from, keeping that part of their lives as treasured memories that have made them who they are.

Analysis of municipal and regional trail systems

Observations

- Road biking is a frequent activity around Fairview.
- Rich cultural and scenic beauty exist throughout Fairview.
- There is support from many in the community to increase recreation in and around the city.
- There are currently limited opportunities to recreate within Fairview Canyon.

Opportunities

- There is a need for regional and local trail systems.
- Through recreation, there is an opportunity to emphasize the significance of Heritage Highway 89.
- Through increased recreational opportunities, more people would come into Fairview and Sanpete County because of the rich natural resources and strong cultural heritage.
- Increase opportunities for recreation in Fairview Canyon closer to the city.

Regional Trail System

- Heritage Highway North and South Bike Trails
- Building a system of county-wide connections
- 20 mi of biking either a 10' wide path or an extended shoulder
- Road bike races could be held along both loops for 20 mi of scenic riding

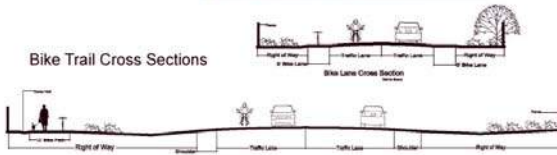


Municipal Trail System

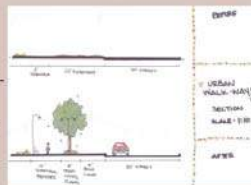
- Sidewalk improvement around historic district
- Smaller walk/bike paths from Monument Park to Cemeteries, and then along the San Pitch River
- Canyon Park Trailhead providing short nature trails or longer hill-climbing trails
- Bike lanes throughout the city providing access to various parks
- A possible greenway within the city following Cottonwood Creek

- Bike lane
- Paved bike path
- Improved sidewalks
- Unpaved bike/foot trail

Bike Trail Cross Sections

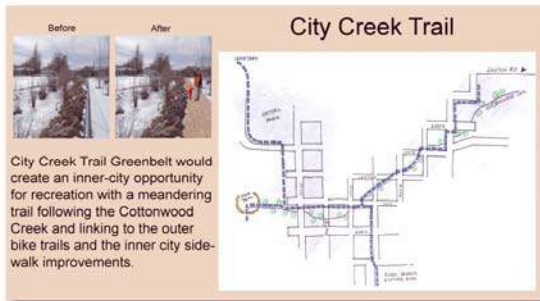


The Downtown route is going to connect with the river trail at one point, so it will provide a place for people traveling from either end of town to rest and continue. Therefore the trail should include wide lanes outside the plantings for bikers, runners, etc.

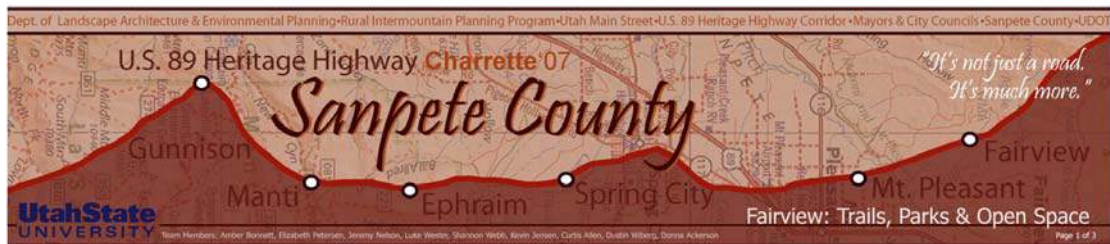


The walk way provides a safe place for people to walk at any time of the day. It should have benches, street trees, and interesting plantings to keep people relaxed and engaged.

Urban Walkway



Linking the City



Sports Park



Sports Park
The new, upgraded sports park will include 6 acres of fields and courts that provide outdoor recreation activities. It will attract multiple users during multiple seasons.

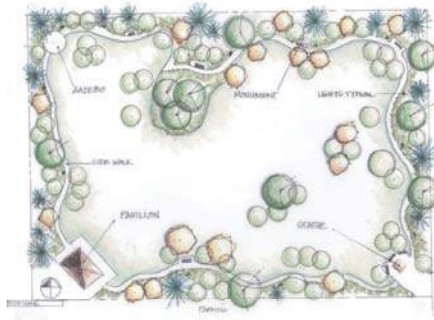


Monument Park



FAIRVIEW CITY IS HOME TO NUMEROUS WAR VETERANS THAT CURRENTLY HAVE NO MEMORIAL PARK. THIS NEW 3-ACRE PARK INCLUDES:

- Meandering pathway that winds around the park.
- Individual war monuments with the names of each veteran that served.
- Picturesque gazebo that can be used for meditation.
- Benches for rest.
- Arboretum with trees donated by families of veterans.
- Connection to trail to pioneer and modern cemeteries.
- Black and bronze plaques.
- Statue: Dedicated to all soldiers.
- Lighting: Major lighting near statue, pavilion and gazebo. Lower lights along pathway/sidewalk along the park.

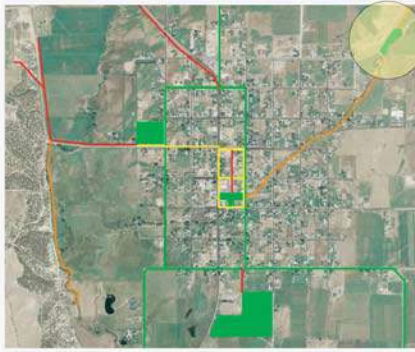


Before



After





Canyon Park

Educates visitors about the historical significance of Fairview and the Canyon.

Is the gateway to the Canyon.



Benefits of trail system with regard to wildlife:

Provides fisherman access along the San Pitch River.
Preserved open space allows roaming of native species.
Greenways provide access through town for migratory animals.
Unique animals and birds (such as the Bald Eagle) attract visitors and bird watchers from all over the state.

Mountain Bike Trail

Provides additional recreation near Fairview.
Offers views of the valley.
Allows better access for fishing.



Interpretive Signage and Trailhead

Plaques and signs welcome the outdoor enthusiast to enjoy the canyon, as well as giving them a taste of town. The canyon provides important economic and recreational opportunities for Fairview. Discovering the downtown is the best way to embrace the canyon.



ELK (*Cervus canadensis*)
Manti-Lasal National Forest is home to one of Utah's largest herds of elk.



Mule Deer (*Odocoileus hemionus*)
Mule deer use the Sanpete Valley for winter range.



Red Fox (*Vulpes vulpes*)
The Red Fox patrols the Sanpete Valley, hunting small mammals, berries, and insects.



Bald Eagle (*Haliaeetus leucocephalus*)
Our national bird uses the Sanpete Valley as a winter home. The residents of Sanpete are lucky to have such frequent sightings of the species.



Red Tail Hawk (*Buteo jamaicensis*)
This raptor uses fence talons and eyesight that is eight times greater than that of a human to capture their prey.



Cliff Swallow (*Petrochelidon pyrrhonota*)
Cliff Swallows build nests in colonies on the faces of cliffs, under bridges, and in culverts.



Rainbow Trout (*Oncorhynchus mykiss*)
This fish, easily identified by the vibrant colors, is sought after by many anglers.



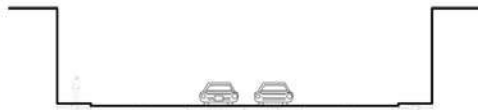
Brown Trout (*Salmo trutta*)
San Pitch river contains a population of this tasty trout.



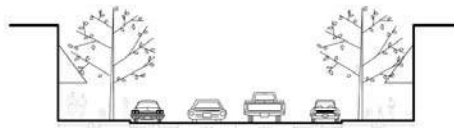


Downtown Revitalization

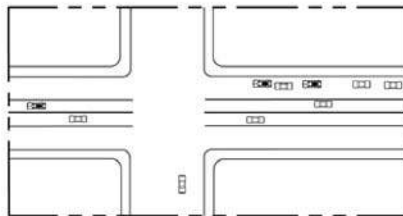
Fairview City has an endless amount of potential. The charming architecture, historic feel, location as the gateway to the Heritage Highway corridor, and booming tourism, makes this city a very desirable destination. However, there isn't much of a "destination". The downtown is empty and bleak. With the unnecessarily wide shoulders, narrow sidewalks, cold building facades and lack of amenities, the Fairview City Main Street corridor is dominated by the automobile scale, while a much more inviting pedestrian atmosphere is an afterthought.



Current Street Section



Proposed Street Section



Current Pedestrian Crossings



Proposed Pedestrian Crossings

The current streetscape is not inviting and won't attract people. The proposed street section shows improvements that can be made, such as widening the sidewalks and narrowing the shoulder for parallel parking. Trees and other amenities help to create a wonderful, lively pedestrian atmosphere. Also, there are no safe places to cross the street. Pedestrian crosswalks should be at every block, allowing for people to move easily and safely throughout downtown, while calming traffic and making the pedestrian first priority.



Current Streetscape



Proposed Streetscape

The charm of a walkable, attractive main street will create pedestrians, which will create a lively atmosphere. These elements will draw people downtown and offer a pleasant, refreshing destination for tourists and residents. People would have a reason to spend time and money in Fairview as opposed to bypassing downtown.

Fairview City is a significant destination for active people. With the Skyline Drive, kiteboarding, and possibly The Narrows, Fairview experiences a large amount of tourism, which is only going to increase. It is vital that downtown Fairview becomes a major destination for these tourists and residents. Currently, there isn't much of a reason for people to go downtown when downtown isn't an inviting place to spend an hour or two shopping, eating, etc. Plus, there is no chance that people would waste their time coming to downtown in its current state, when they can easily stop at the gas station right before the turn onto Canyon Road. However, there is no reason for downtown Fairview to miss out on being a major attraction. With the products of a pedestrian scale design, classic architecture and materials, and unique anchor stores, the sky is the limit for Fairview City and its potential to become a significant destination.





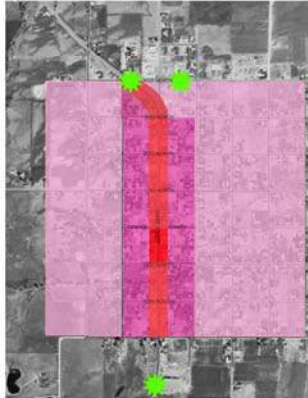
Zoning

The correct zoning is very important to the proper growth and development of a city. Zoning ordinances should be implemented to keep the core commercial growth concentrated in the downtown area, preventing unattractive retail from creating sprawl up Canyon Road and other locations, which as a result will detract from downtown.

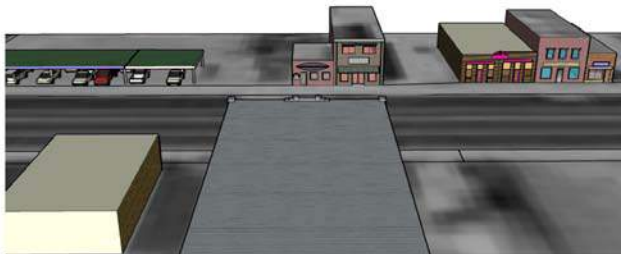
Proposed Zoning Map

- Core Commercial/ Mixed Use
- Future Core Commercial/ Mixed Use
- High Density Residential
- Residential
- Gateway Locations

This proposed zoning map recommends that the Main Street corridor becomes the core commercial/ mixed use zone and the heart of Fairview City. The connecting blocks to Main Street should be zoned for high density residential to prevent sprawl, while promoting a strong sense of community. The edges of town should be zoned for standard residential and should be altered according to the amount of growth that occurs.



This is an example of live/ work units. They would be a great fit for the mixed use or high residential area. They consist of shops or offices on the street level, with living areas above. These offer affordable options for a variety of different people, while offering a unique dynamic to the streetscape with residential above commercial.



Before View of Main Street and Existing Car Lot.

This is the current view of Main Street with the existing car lot. The car lot is an eye sore and detracts greatly from the feel of downtown. There is also discontinuity and gaps between a majority of the building. It is very important to have a constant yet varied building facade to create an inclosed, intimate feel. This will unify downtown and be a leading cause in creating a great destination.



After View of Main Street and Existing Car Lot.

Zoning can prevent uses like car lots and other strip mall commercial from locating downtown and destroying it. Strip mall commercial should be zoned for areas on the edge of town.





2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

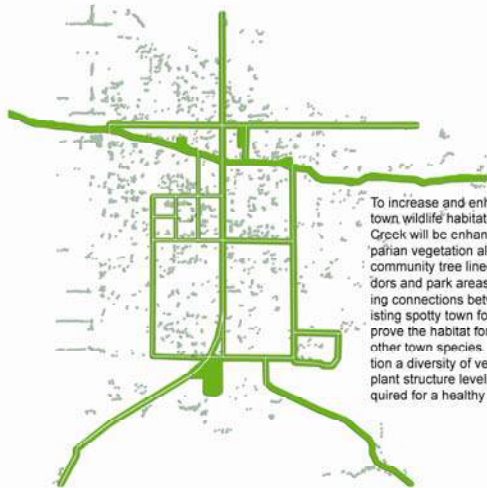
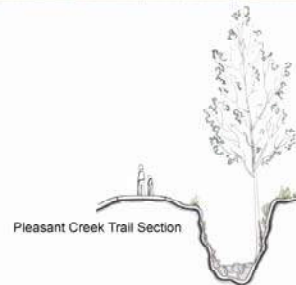
MT. PLEASANT

MT PLEASANT

TOWN & REGIONAL TRAIL CONNECTIONS

- Short Walk or Bike Ride ■
- Longer Bike Ride or Hike ■
- ATV Routes ■
- Greenway & Parks ■

Encircled by exquisite mountain ranges, lies a small community full of opportunities and rich with heritage. We propose to add to and enhance this historic area that provides the resident or visitor with ATV trails, hunting, hiking, biking, camping, baseball, cross country running, snowshoeing, soccer, tennis, and nature watching. Connections between community and land provide a better experience for these outdoor activities.



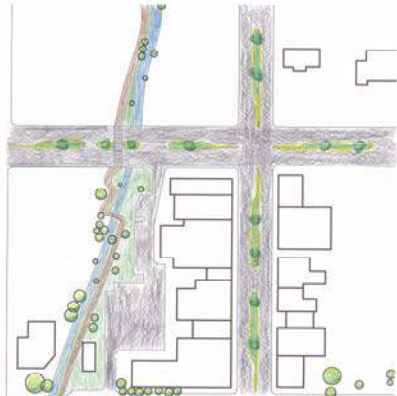
To increase and enhance the town wildlife habitat Pleasant Creek will be enhanced with riparian vegetation along with community tree lined street corridors and park areas. By increasing connections between the existing spotty town forest will improve the habitat for birds and other town species. In addition a diversity of vegetation and plant structure levels is also required for a healthy habitat.



Lighting For Primary Trails & Sidewalks



MT PLEASANT



HIGHWAY 89 CROSSWALK & MEDIANS

Our goal for this part of Mt. Pleasant was to make more connections in downtown. We added a multiple use trail along Pleasant Creek from 300 East to 300 West, proposing new parks at each end of the trail. To allow for safe pedestrian crossing for those using the trail we added medians to the highway. This will also help to direct some attention to Main Street due to the slower speeds.

Next we wanted to connect Wasatch Academy and Main Street; we took it one step further and connected Main Street and our proposed park along the trail. This connection was accomplished by adding swales between the street and the park strip along 100 West. The swales will not only separate the street from the sidewalk, but also control excess water from the weather.

We also added a park on the gymnasium grounds to give the citizens another place to relax. We are hopeful that it will become a place for the senior citizens that live nearby to increase, or maintain, their daily activity. This park also has a Life Trail which gives those using the trail simple exercises to do at each station.



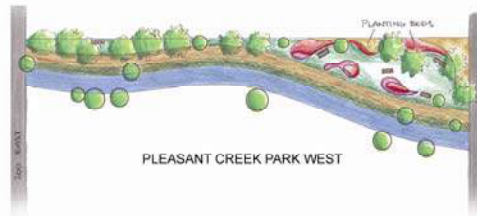
HIGHWAY 89 MEDIAN



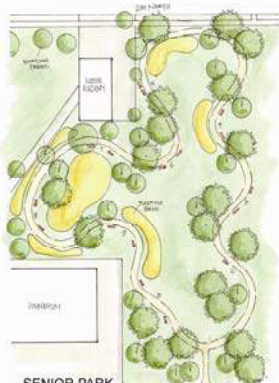
HIGHWAY 89 CROSSWALK



PLEASANT CREEK PARK EAST



PLEASANT CREEK PARK WEST



SENIOR PARK

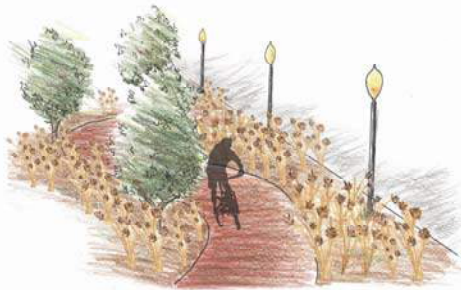


WASATCH ACADEMY MASTER PLAN



MT PLEASANT

When entering Mt Pleasant from the south it's easy to determine that the city starts at the RG & W Railroad Depot/Antique shop. First impressions are important, so that's why we ran with the opportunities provided to us by the Mt Pleasant City Park, historic train depot, and the events center area, to fine tune and reinforce the southern entry for the city of Mt Pleasant. This is one of the cities largest open spaces, so it really works well to help establish a definitive city border. Not wanting to take anything away from Main Street, we suggested more small commercial use, an amphitheatre for all types of activities, and green space as far as the eye can see already provided by the existing park area. What's really going to make this area succeed is its connection to the green trails throughout the city making the area easily accessible to the community. Welcome to Mt Pleasant!



MT PLEASANT

Power Plant Park has the potential to serve as a gateway to Skyline Drive. This would allow Mount Pleasant to become a destination for travelers bound for Skyline Drive. If the park was expanded to also serve as an overnight campground this could help generate revenue for the city. The overall design of the park is accomplished through the influence of the Dutch countryside. A combination of allees and open fields strengthened with a strong outline of trees. It is proposed that something be done to the Power Plant building to decrease noise resonance, as it would discourage overnight stay at the site.

Pleasant Creek, being the only natural resource within the town should be conserved and re-established as a city greenway. A multi use trail proposed to extend through the city all the way to Power Plant Park would enhance the connection of the city to the park and surrounding natural attractions.

Because of the proposed Pleasant Creek Trails close proximity to the area that is used as a shooting range. It may be a good idea to construct a shooting range, north of the trail that would encourage all shooters to shoot in a north easterly direction.



MOUNT PLEASANT HISTORIC DOWNTOWN



WELCOME TO HISTORIC MOUNT PLEASANT!

Mount Pleasant was settled in 1859. In the 1880's it was the county's largest city with 2,000 people in it. Today its population is around 2,700. Downtown Mount Pleasant still has many of the buildings built during the late 1800's and early 1900's. The city has a history of diversity in the forms of ethnicity and religion. A great example of a positive legacy of this diversity is at the Wasatch Academy located near Main Street. We propose keeping the historic downtown alive by creating an identity, destinations, a walkable Main Street, better connections to Wasatch Academy, and preserving the historical charm.

IDENTITY

One of the problems facing Mt Pleasant is its lack of identity. History has given the city a "liberal" image. However, simply being liberal will not attract people or businesses. The liberal nature of the city must be shown through a specific medium to be an effective draw.

There are many different ways to strengthen this identity. One way we believe the city can do this is through

continuing the city's history of liberal arts opportunities and turning Mt. Pleasant into a place for the performing arts.

Wasatch Academy already has a rich tradition of excellence in the performing arts as does the community have a history filled with dance halls, opera houses and performance halls.

ECONOMIC FACTORS

In speaking with residents it became clear that any and all improvements made to the city needed to be cost effective. Many people living in Mt. Pleasant are on a fixed income and can't afford a huge tax increase.

However, we have found that sustainable development can occur without too much money coming out of the taxpayer's pockets. There are historic preservation funds and tax credits available for communities trying to revitalize historic downtown areas. For more information on these go to www.mainstreet.org

Even in the cases when funding isn't available, studies have shown that investment into downtown revitalization is a

risk worth taking. The National Trust Main Street Center has provided the following 2005 reinvestment statistics:

Dollar invested: \$31.5 Billion
Average reinvestment per community: \$12,485,058
Net gain in businesses: 72,387
Net gain in jobs: 331,417
Number of building rehabilitations: 178,727

Reinvestment ratio: \$28.31

(The average number of dollars generated in each community for every dollar used to operate the local Main Street program.)

On average, when a community puts one dollar into downtown revitalization it receives nearly thirty back! That is more than self-sustaining!

The following panels show our recommendations for redevelopment of Mt. Pleasant's historic downtown.



MOUNT PLEASANT HISTORIC DOWNTOWN

HISTORIC MAIN STREET

Mount Pleasant's Main Street is a historic treasure. The majority of the buildings are from the turn of the century. While many have suffered from a lack of maintenance, most are still in good condition.

With such an asset available to the community we believe the best way to revitalize the city's economy is to restore and adapt this beautiful area.

Redeveloping main Street is the first step towards creating a viable identity for the city. By creating a fun and interesting atmosphere where people want to stop and spend time (and money) is essential. The area is pedestrian-oriented and encourages walking rather than driving. Angled parking (after UDOT inspects road width) will allow for more cars which means more people.

In order to keep people downtown we first have to get them there. In keeping with our desire to celebrate the city's liberal arts heritage we propose adding an Opera House on highway 89 (treated on the next panel). While the Opera House won't be located on Main Street, the street will be vital to the Opera's success by acting as the location for restaurants and shops that can cater to the theater crowd. A bakery, an outdoor coffee shop, and a candy store would be nice compliments to the existing food establishments.

With the combination of entertainment, food, and shopping downtown Mt. Pleasant can once again become a vibrant and exciting area.



Painted walls advertise city attractions



The malt shop corner with proposed changes



Sitting areas with greenery



GATEWAYS

Two distinct gateway areas should be built to help travelers have a better sense of place and a greater desire to stop. The first (below left) is a sign accompanied by plantings on both sides of the highway that will give people a definite sense of entrance to the city.



The second (below right) is a gateway arch that will frame Main Street and draw people's attention down as they drive by.



MOUNT PLEASANT HISTORIC DOWNTOWN

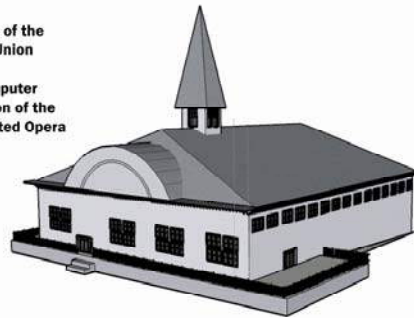
OPERA HOUSE

Mount Pleasant has a strong history of performing arts beginning with the first play house in 1860 located at the log meeting house in the center of the fort. Over time other show houses were built culminating in the Union Pavilion built in 1894. The Pavilion housed one of the best dancing halls in the area. A stage was later added and it became the Opera House. Unfortunately it burnt down in 1922.

The next step in establishing an identity for the city is to build a new opera house patterned after the Union Pavilion. The House could serve not only as a play house but also a movie house and dance hall. A variety of activities and functions could be housed in the new Opera House and, with the cooperation of Wasatch Academy, could possibly be a venue for the school's plays. The proposed location on Highway 89 will not only attract travelers to the downtown but it will also better connect Main Street and the highway.



Left: Photo of the original Union Pavilion
Right: Computer construction of the reconstructed Opera House



View of Highway 89 with the addition of the Opera House



Current view of Highway 89

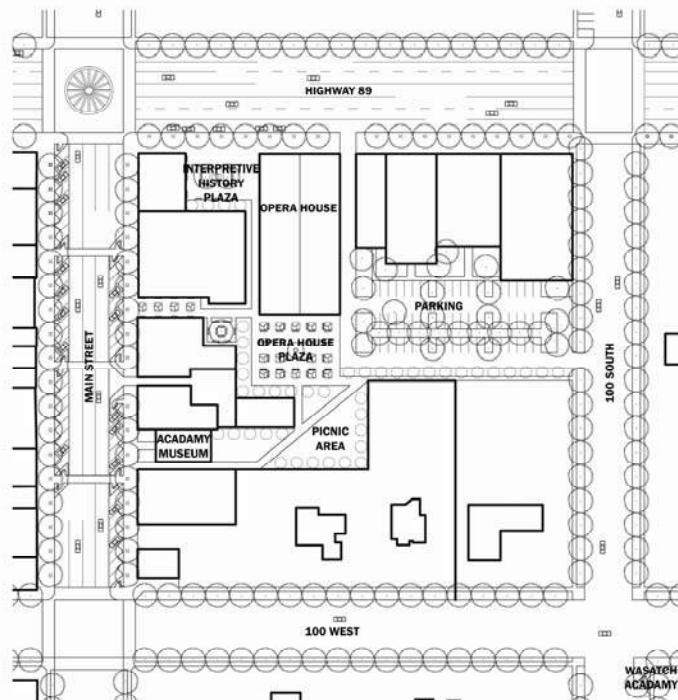
BLOCK REVISION

An essential part of Mt. Pleasant's history and liberal heritage is the Wasatch Academy. However, due to ideological differences, the school and the community have largely remained separated. In order to create a better connection between the community and the academy we must first make the academy more accessible. This can be accomplished by reconsidering the block on the southwest corner of the Highway 89/Main Street intersection.

Through the creation of a series of open and semi-private spaces we can pull people from Main Street towards the academy and visa-versa. The spaces will also serve to compliment the new Opera House and the Academy Museum located on Main Street. It also encourages the perception of a pedestrian-oriented downtown, an essential part of its revitalization.



Above: View from alley into the Opera Plaza
Below: View of the fountain in the plaza





2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

SPRING CITY

Spring City Parks

Open space, such as a park, is an essential part of any community. It provides places for recreation, reflection, and relaxation. These spaces offer an escape and welcome contrast to the built environment. They also create a sense of ownership and belonging for members of the community. Open spaces must be preserved and capitalized upon before they become a restoration project because of its absence in the future.

Existing Park Improvement Suggestions



The addition of single picnic shelters will provide a protected place for people to get away from the elements during community events.



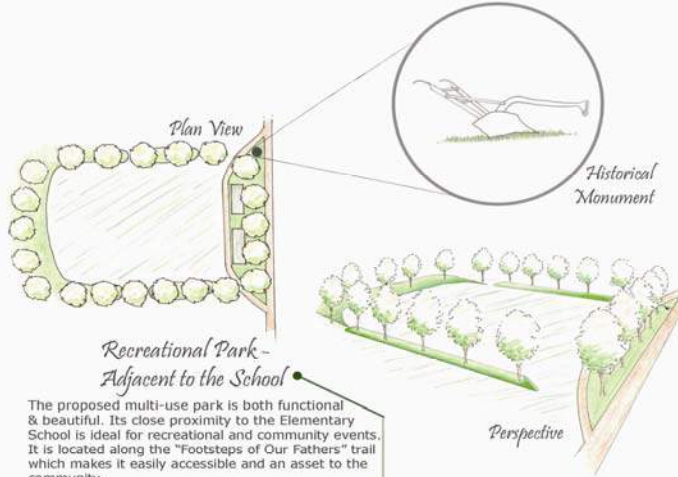
Another way to upgrade the existing parks would be to include more benches and site amenities such as trash cans, bike racks, and low pathway lighting.



Design ideas to promote park use is to include more secluded areas for visiting with friends and watching children play. Secluded areas can include proper placement of trees, berms, and retaining walls.



Economic funding for many of these ideas and suggestions such as the trail and updating the baseball fields can be achieved by community service projects where people donate their time and services to improve the area.



Main Street Pocket Park

This quaint park represents the heart of Spring City. Its main feature is a free flowing spring and monument placed in the center of the park. The spring is an homage to the original spring once located in the middle of the road. The park is tucked away off Main Street to provide a sense of security and retreat; a place of rest to learn more about Spring City's history. The Main Street Pocket Park caters to all the senses and is a welcome treasure sure to be enjoyed by all.



Spring City, Utah

The City of Living History:
An Entire Town Historically Preserved, Thoughtfully Moving Forward



History

Spring City, originally settled in 1852, has a rich history worth preserving. From the many free flowing springs from which its name derived, to its beautiful Scandinavian architecture, there are many things that make Spring City unique. The small town, rural environment, and landscape which have remained through the years provide an ideal situation for raising a family and living a rural lifestyle, Spring City's history is a vital part of the present and future.

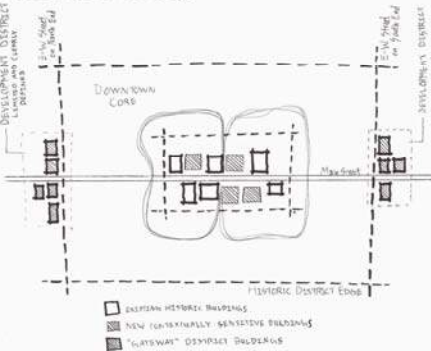
Local Concern

With such a rich history and a hopeful future, Spring City is faced with a few future concerns. An important aspect of its future is preserving the authenticity and character of the city. In order to do this, issues such as controlled growth, open space preservation and water management must be addressed. Community involvement and proactive solutions will ensure that Spring City's history and future remain true to its original character.

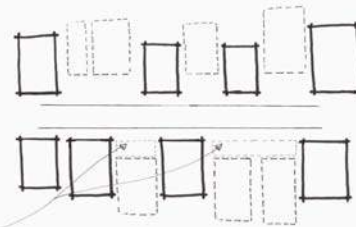
Team Objective:

Sustain Spring City's historical & rural character through any potential changes that may affect the city.

Economic Toolbox



"Note: A proposed 'High' building from the adjacent historic structures, for new structures/development."



"By retaining the existing building line for new buildings, the new structures preserve, enhance & even increase the existing historic character by putting them back & keeping their impact in the existing historic structures. Additionally, this would create a wider sidewalk on downtown as places, creating 'pockets' for tables, dining, patios, flower, etc."

Gateway to Historic Spring City Scenario:

A promising alternative would be to "frame" historic Spring City by carefully designed and placed development, at the boundaries of the historic townscape. This would most likely, best take the form, (to begin with) of two gateways on Main Street, near the intersections of the East-West running streets closest to both the North and South boundaries of the historic Spring City's landscape, townscape and Main Street. New development would then be placed along these East-West running streets, adjacent to and on both sides of this arching gateway over the street.



Community Heritage & Future Center:

- To instill a sense of pride in the residents regarding Spring City, and a heightened appreciation for its significance.
- To celebrate, promote and foster economic and social entrepreneurship

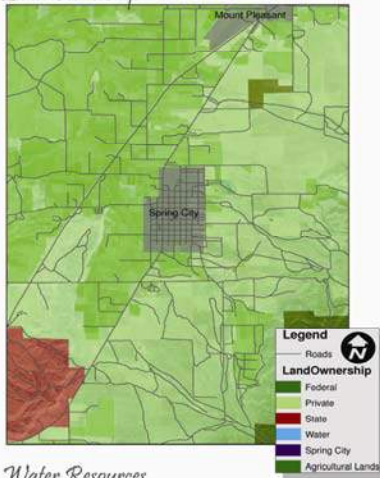


Downtown Main Street Enhancement Scenario:

Our first proposal rests on the concept of new downtown development along Main Street with building size and shape regulated by a form-based code (versus land use based zoning) that would keep the size and form off building appropriate to the context of the existing historic Main Street. In addition new building, which would be placed in the empty pockets of space in the gaps between the downtown building, would be set 4-8 feet back from the closest adjacent historic building, thus giving emphasis to the historic buildings, creating a highlight and focus on the historic buildings, presenting them as something to be appreciated.



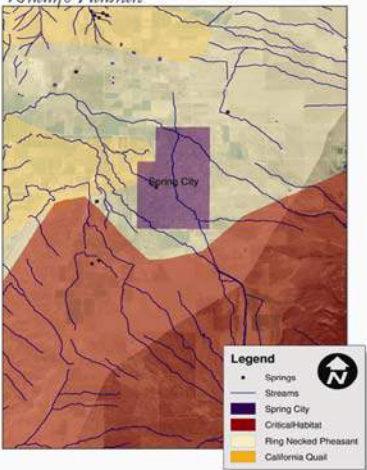
Land Ownership



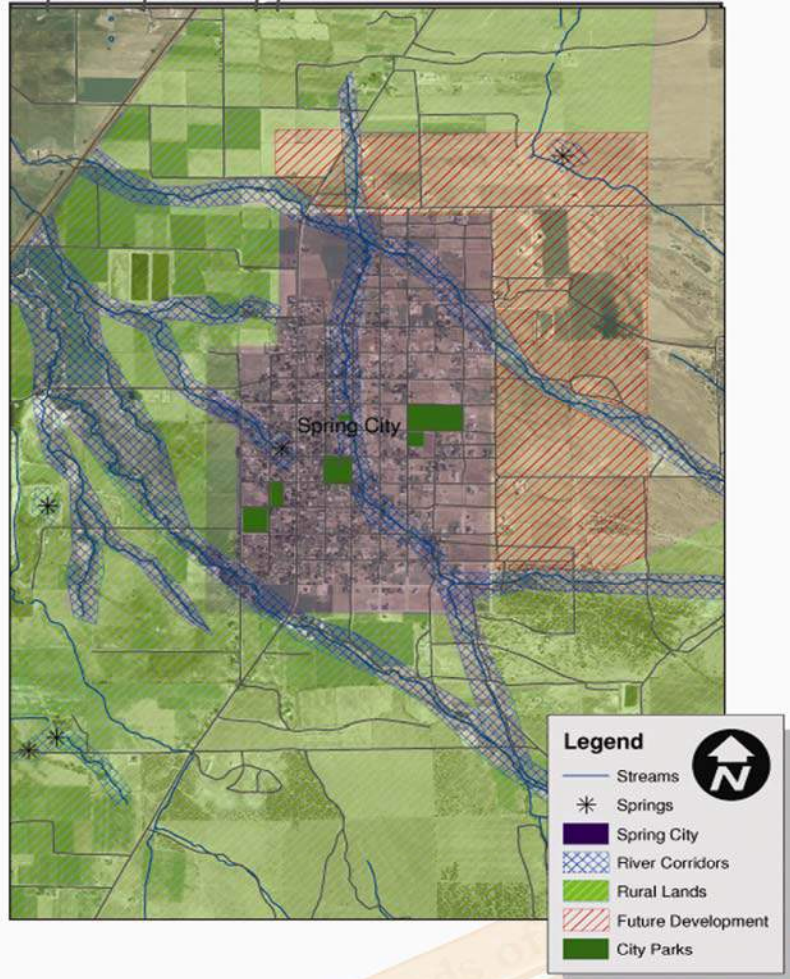
Water Resources



Wildlife Habitat



Open Space Opportunities



Agriculture Lands:

The majority of the agriculture lands are located on important areas for Spring City's natural resources. It is recommended that these areas continue to be used as agriculture or rural lands. By maintaining the current use of these lands the town will keep its rural feel. This rural quality will also be maintained for the visitor who is driving into Spring City through these lands on either Highway 117 or Pigeon Hollow Road.

Future Development:

New development within Spring City should compliment its historical townscape. The city should look to infill its current blocks were feasible and reduce outward growth as much as possible while still maintaining its historical character. If the city is to develop outside its current boundaries it is recommended that the development occurs on the north and east side of town. This area is the least sensitive to disturbance of Spring City's natural resources and will maintain the historic visual quality for the visitor passing through Main Street.

River Corridors:

Rivers, streams, and springs are important resources that should be protected. Natural buffers should be maintained or implemented to protect these areas. These buffers could be developed into greenway trail system for recreation use in the future.



"Footsteps of Our Fathers"

The proposed "Footsteps of Our Fathers" Trail creates an engaging Spring City experience. The trail enables pedestrians and bikers to safely maneuver through the city while enjoying the beautiful surroundings and *Historical* charm for which Spring City is so well known. It connects two existing bike trails and creates an *Interactive* path that helps to guide people through the city. Along route, the trail winds through prime open space corridors and parks passing many historical homes, buildings, and landmarks. The trail also *Exhibits* local artists' work and *Displays* classic agricultural equipment to provide an *Educational* way to inform both visitors and locals of how special Spring City was in the past and continues to be in the present.



Historic Sites Along the Trail:

Spring City Chapel
Niels H. Borresen House
Orson Hyde House
William Ford House

Spring City Confectionery
Spring City Old Firehouse
John T. Baxter, Sr. House
Jens Petersen House

Lyceum Theater
Spring City Old City Hall
Petersen-Nielsen House
Freeman Allred house

Sandstrom's Pool & Dance Hall
Justesen House
Baxter Store
Spring City Public School

Crisp-Allred House
Olsen Hansen House
Behunnin-Beck House

Christophersen House
John Blain House
George Downard House



Benches placed along the trail provide resting areas where people can sit, relax, and soak up the surroundings.

Featured monuments highlight local artists' work and provide brief historical facts of Spring City.



Currently the wide median between the sidewalk and road is nice open space with great potential. The addition of a wide gravel trail would beautify the area and provide a safe pedestrian path. The trail connects various locations throughout the city and promotes an active lifestyle.



Historic Spring City

Spring City Aerial Map and Elements of Interest



Proposed North and South entrances.



Historic School with unique arched entrance.



Historic aerial photo, displaying the original grid city layout.



Historic LDS church.



Historic Main Street yesterday and today...what of tomorrow?

Spring City Historical District Map



A proposed modification of the entrance monument to be installed at the same location.



New storefront signs to be placed in front of the Main Street businesses.



A proposed gateway at the North and South Spring City entrances.

Legend:

Green - Main Street Central District
Blue - Expanded Main Street District
Red - Spring City Historical District
Green Dots - Historical Sites



A proposed pocket park along the Main Street corridor, south of Spring City Kitchen.



Section view of proposed Main Street parking in the business district, 100 North to 100 South.



Proper infill along Main Street with new businesses.



Improper infill along Main Street causes chaos.





2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

EPHRAIM

Parks, Trails, and Open Space Ephraim, Utah

Infill Alternatives



Housing Infill

Ag Infill



Park Infill

Opportunities for Infill

There are many areas in Ephraim to have infill development. There are several choices to make in that area. You can have Housing infill which increases density and reduces sprawl. You can have a continuation of agriculture and rural identity, or you can connect your parks, trails, and open space with "pocket parks". The brown areas are opportunities for infill and the green areas are existing parks. The blue area is the stream that runs through the city



Parks, Trails, and Open Space Ephraim, Utah

Open Space Matrix



Spatial Analysis

Connection with Parks

Existing

- Large Park 1 Square Mile Radius
- Pocket Park 1/2 Square Mile Radius

Future Needs

- Large Park 1 Square Mile Radius
- Pocket Park 1/2 Square Mile Radius

Spatial Analysis - Shows the existing large parks as well as smaller pocket parks. Leaving results of neighborhoods that are not within walkable distances to a park. This allows city planners and park directors to determine where the needs for parks are.

- Agriculture
- Urban
- Wildlife
- Riparian

Green Space

Throughout the City



City Uses

Connection with Parks

- Park Location
- Residential
- Industrial
- Commercial
- Institutional

Uses Analysis - This views the current cities planning and zoning. Then it looks at the current location of the parks, both large scale parks and small greenspaces. With this information you see who has close access to this park. This tells you the primary and secondary users of the park. Looking at zoning areas shows you where the future growth will occur. Then connecting green spaces together with trails that are legible and paths with signage. This shows how a clear overall matrix can allow citizens to not only form a cognitive map of how the city trail systems work, but then promotes the use of these areas.

Green Space

Within the City

Green Space Studies - The reason open and greenspace studies are significant is, that it deals with more than recreation. The agriculture land, wildlife corridors, riparian corridors, as well as urban habitat are all taken into consideration. This allows planners to preserve rural character, consider the importance of productive ag lands, and determine how important is there wildlife habitats. Although the importance of recreation can not be overlooked. Trail systems promote healthier lifestyles, Parks increase neighborhood real estate, and allows people to enjoy the beautiful place Ephraim has to offer.

By getting the community aware of the openspace matrix system, the city of Ephraim can focus on good planning for the future. Making decisions best for the community, environment, rural character, and future economy. Growth then becomes exciting and controllable, and sustains a future that represents the great people of Sanpete.

Background Photos:
<http://agric.its.state.ut.us/>

Computer Imaging:
Team 7 - Utah State University
LAEP Department



Parks, Trails, and Open Space Ephraim, Utah

What is Open Space?

In general, open space is forests, meadows, fields, wetlands, floodplains, stream corridors, historic landscapes, farmland, parks, greenways, and other areas that remain relatively undisturbed.

Classification of open space for Ephraim, Utah.

Agricultural- Any open space that is used for crops, livestock, or rangeland.

Riparian- Any open space that has direct correlation with streams, rivers, lakes, wetlands, or any other water body.

Wildlife/Natural- Any open space that is relatively undisturbed habitat for wildlife. Public access is restricted where low density, passive recreational activities may be allowed on a seasonal basis, such as birding and hiking.

Urban- Any open space that falls within a residential, commercial, or industrial setting. This may include but is not limited to parks, tennis courts, ball fields, and golf courses.

Benefits of Open Space.

The benefits of open space are basic but well known. Open space protects water supply, reduces flood hazard, promotes biodiversity among plant and animal life, and provides citizens a change to enjoy nature and the beauty that it provides us. Open spaces provide relief from the urban grind by simply offering aesthetic relief. Open space also provides opportunities to learn about ecology and our connection to the land. Agriculture has also been a fundamental icon to the heritage of Ephraim. The open space of agriculture provides Ephraim with a rural feeling that its citizens identify with and is treasured by those living outside that community.

Goals/Ideas for Ephraim, Utah.

Create a system of Open Space, Trails, and Parks that is interconnected.
Conserve and enhance the network of open and natural areas in and around Ephraim.
Protect and enhance the environment.
Protect wildlife corridors and wildlife habitat.
Natural features and riparian areas should also be protected and enhanced.
Protect Cultural Heritage.
Preserve historic landscapes that reflect Ephraim's rural history.
Limit sprawl by encouraging infill.
Successfully work with private landowners to protect and enhance stream corridors and other open spaces.
Source: Town of Cary, Open space and historic resources plan



T-O-O-L-B-O-X Regulations

Riparian Buffer Rules
Planned Unit Developments
Urban Growth Boundaries
Mandatory Dedication of Open Space
Performance Zoning
Bonus/Incentive Zoning
Voluntary Agriculture Districts

Aquisition Methods

Conservation Easements
Leasing
Management Agreements
Mutual Covenants
Limited Development Techniques
Purchases of Development Rights
Transfer of Development Rights

Financial Strategies

Bond Issues
General Fund Appropriation
Revolving Fund
Preferential Tax Assessment
Real Estate Transfer Tax
Development Impact Fees
Other Taxes and Fees
State and Federal Grants



By using the Toolbox, the city of Ephraim can avoid becoming a city they do not want to evolve into. More of the Toolbox can be found at:
www.cityofcary.org/extension.usu.edu/files/publications/publication/NR_RF_004.pdf
extension.usu.edu/files/publications/publication/NR_RF_003.pdf



Connecting with Trails

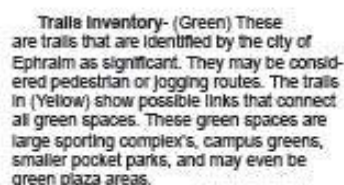
[illegible]

3. **Forest Park.** Forest park is a well forested spot in the center of both systems and located. For the reason it makes a great playground for the key part of the trip. Forest park serves different purposes for all different generations. It can be a nature park for anyone from age seven to over 60 years old.

Linking the Historical

[illegible]

Linking the Future



Links should always be legible by those who are the users. This means paths, signs, street trees, paving patterns, and other obvious indicators. This becomes the connective tissue in the pedestrian landscape.

There are great connective roads that go east from Ephraim into the hills. This is a great gateway for habitat observers. There are about 3 locations that may be considered these gateways. This is where the wildlife corridor crosses along the east bench, just outside the city limits.

By preparing for the future with trails, there lies great opportunities. One being the learning of the past by a historical type of walk, that connects people today with the past. The users can also experience a healthier lifestyle with recreational, and fitness oriented trails. Users are often seeking serenity with wilderness walks. Ephraim as a city can strategically utilize all these wonderful resources. Trails can be a combination of both urban and rural, to help keep the small town feel.

Credits: State of Utah AGRC for the base
Map.



ANALYSIS MAP

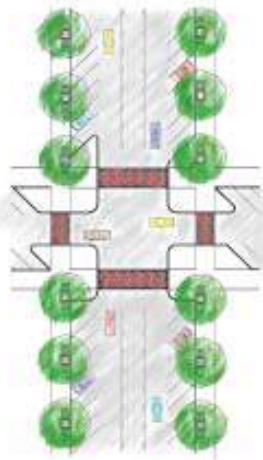


- Historic Downtown
- Vehicular Circulation
- Green Space
- Parking
- Landmarks

PARKING ISSUES - Street side parking, as it currently exists, is not visually legible and cannot accommodate parking for everyone. Alternate parking in rear or adjacent lots facilitate the majority of the parking for downtown businesses. Main Street parking needs to have 45 degree parking lines to delineate stalls and increase parking capacity. Bump-outs soften the monotony of a consecutive row of stalls and calm traffic to allow for safe street crossing. Statistically, street front businesses will not suffer a loss of customers if parking is placed in the rear. Improved access in and out of rear lots, along with visible signage, will help customers orient themselves towards the businesses. Multiple use stalls for day and night activities would help reduce the parking shortage as well.

CULTURAL HERITAGE

PRESERVATION - Around the mid 1800's, settlers from Denmark inhabited what is currently known as the City of Ephraim. In subsequent years, Scandinavian ancestors migrated to Ephraim and helped to bolster a distinct cultural identity to this area. Celebration of this heritage is displayed in the annual Scandinavian festival. Preserving this legacy can be accomplished in the downtown and main street area by portraying physical elements such as historic placards, sidewalk etches, lamp post signs, interpretive signage and bollard kiosks. Large objects such as statues can also help to define both the downtown area and the city as a whole.



(Before) (After)



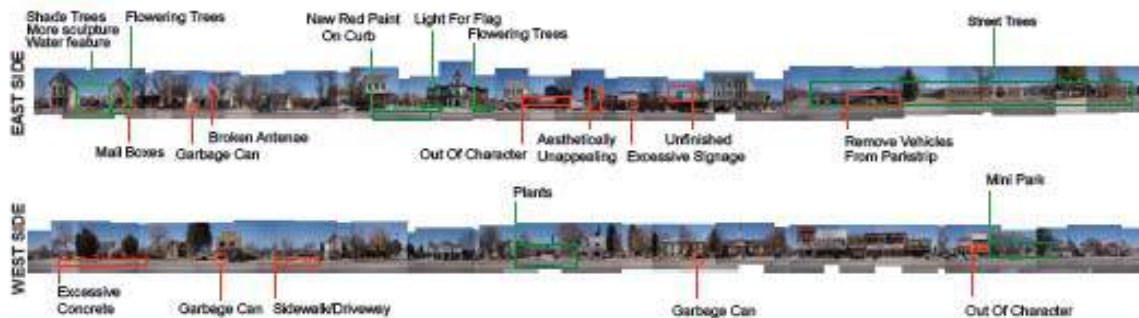
CONCEPT PLAN



PEDESTRIAN CIRCULATION - Safety is vital to a productive downtown atmosphere. Pedestrian access along store fronts and across the street should allow optimum security to its users. Patterned or striped crosswalks increase visibility to drivers and pedestrians, while also providing an aesthetic appeal. Crosswalk signal lights at intersections provide added safety. If signals are not feasible, then crossing flags, more abundantly provided, should be placed at either side of the street.

CROSS-SECTION

- Add
- Subtract or Change





CELEBRATION OF THE ARTS - Although Ephraim is small and secluded, many great artists have emerged from this talented city. Thanks to Snow College, many genres of art have been taught and shared throughout the world. One famous artist in particular is C.C.A. Christensen. The excitement and appreciation for art is only truly displayed in small pocket parks such as the adjoining courtyard of the Central Utah Art Center. The visual display of art can best enhance the downtown area by incorporating subtle artistic works of art on streetscape elements such as: lamp posts, benches, trash receptacles, fountains, buildings, etc. Current sculptures need night lighting to accentuate the art both day and night. Audio speakers playing popular jazz, or other music varieties, during special events or around food establishments, would also help to create a welcoming ambience to the downtown area.



HISTORIC GUIDELINES -

Traces of historic 19th century buildings and architecture can still be found in the City of Ephraim. Places such as the Co-op and the C.C.A. Christensen home are marvelously preserved artifacts. Unfortunately, there are no regulations that prohibit the alteration or renovation of historic buildings to reflect its original style. Rules governing the alteration or conserving of building facades must be established in order to truly preserve the look and feel of traditional Ephraim development. Here are a few suggestions to consider when setting guidelines.

1) Keep building facades as accurately detailed as its original design. 2) If renovations or upgrades are necessary, preserve existing elements and alter only what is necessary, conveying the style of the previous architecture. 3) If demolition is necessary, reconstruction must coincide with either the exact replica of the destroyed structure, or recreated to reflect and represent the style of other architecture from that era and/or the surrounding buildings. 4) Incentive programs will be offered to those who actively preserve the structure, whether it be under their ownership for an extended period of time, or a newly acquired piece of property. 5) A historic preservation committee will dictate if all regulations are being followed and penalize any one who acts contrary to these guidelines.

Signage Ideas - Signs similar to those used by the CO-OP reflect the Scandinavian culture. Signs of this style create that Scandinavian feeling for each pedestrian and downtown shopper.



Welcome Sign
(Before)



(After)



CITY SEAL IDEA - This symbol is an adaptation of the symbol currently used for the Scandinavian festival. It has been altered to reflect the Heritage and culture of Ephraim by incorporating country flags, historic wildlife, and hunting heritage.

WELCOME SIGN - At either end of Ephraim lies a welcome sign. This is a great way to welcome tourist and give a brief overview of the history and culture of the city. It is essential to keep these signs in open view and enhance the beauty around it. Relocating street and speed limit signs so they are not in the view of the welcome sign is important. Throughout the main street corridor, business signs can be lowered to the level of the welcome sign without jeopardizing business, and thus increasing the aesthetic driving experience. Greater attention will be drawn to the sign by providing colorful planting which grabs attention without obscuring the face of the sign.

INTERPRETIVE BOLLARD





2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

MANTI

Conceptual Open Space & Trail Master Plan



Trail Head Marker From Urban Trail to Foothill and Regional Trails

Potential Problems:

There are no strong markers to guide people to historical places in town. There is a need for better signage to advertise to people passing through the city.

Trails are minimal through the city. Sidewalks are not continuous and there could be more of them. Sidewalks are a little old and could use some maintenance in residential areas. There is no trail system to guide people to different locations in the city just sidewalk and road. Other types of paths could make it interesting and exciting to go places throughout the city. The historical walk is a great opportunity for people to walk and learn of the Manti's history but the sites are in an awkward order.



Example of Foothill Trail and Trail Head



Learning Opportunity on Trail

Proposals:

- Signs should be redesigned to be more visual to passersby. There should be signs designed to be in harmony with the buildings and character of Manti.

- Trails need to be created to give people opportunities for other activities. Different types of trails should be integrated, (for example: urban, canal, foothill, and regional trails) all of which interconnect.

- Trail heads should be located in public places and changes in trail types. Placing trailheads in parks will allow people to end or start in memorable identifiable locations. At trail heads, signs should be used to show the route of the trail and its connections to other trails.

Urban Park Trail Head to Connecting Trails Throughout the City



ROAD 11-12



Signage Located on Main Street for National Forest Corridor

- Materials should be in harmony with the rest of Manti and it's historical character. Trails can use permeable gravel that is the same color as the gravel in the valley, the canal trail would be paved with asphalt or it could be done with compressed clay, and urban trails would use concrete sidewalks.

- Sitting locations along the trails and at trail heads would be useful to users.

- Signs for educational purposes could be used to teach people about the city.

Example of Sitting Area on Trail



Downtown & Neighborhood Connectivity



Downtown & Neighborhood Connectivity Map

thus cause more damage to the landscape and environment on the mountainside. Having trails from one location to another creates a corridor. Downtown sidewalks are in fairly good condition.

Proposals:

- Urban trails should be concrete that matches the color of the native landscape or the existing concrete. Stepping stones native to Manti could be used around bench and sitting areas.
- Canal trails should use colored gravel that is or looks native to the area. Asphalt or compacted clay can also be used for trail surfaces. Neighbors to the canal should be contacted and before considering the trails because their property lies adjacent to the canals. Contact the canal company to see if they may allow for building a canal in their right-of-way.
- Foothill trails will give people the benefit of connecting to the regional trails in the area. Connecting to trails that go up Manti Canyon will guide users to the Sky Line Trail which is used often. Designated trail heads are necessary to help mark the trail for the daily user and the yearly user. These trail heads will reduce the amount of scaring occurring along the foothills, on the east side of Manti.



Downtown Sidewalk



Downtown Sidewalk



Downtown Cross Section of a Possible Solution for City Urban Trails

Potential Problems:

Urban trails are either in need of maintenance or they are not continuous. Canal trails are non existing and would be a major benefit to the community. A trail along the canal would allow other modes of travel in the city of Manti. Foothill trails are not marked and



Lack of Trail or Sidewalk in Residential Area



Residential Neighborhood Cross Section of Sidewalks With Curb or Stairs

Urban Trail



Canal Trail



Existing Park Reclamation



Proposed City Park Plan

not appear to be used often. In the fairgrounds it appears as though there is no central point or area where people can gather outside of the rodeo grounds. There is open area but it is either parking or dirt. Near the high school football field the two baseball fields need maintenance and a central point does not exist. There are no sidewalks to the baseball fields nor football field from the north parking area. All of these areas are essential to the city and should be maintained and kept in the city if it is the city's goal to bring in more revenue and keep the current residents here. Other small parks throughout the city seem to be in better condition but could also use some maintenance.

Proposals:

- Need to revitalize all parks but particularly the City Park and the Fairgrounds.
- The baseball fields by the high school should have a sidewalk installed and a soccer field to the east. Trees should be added west of the football field.
- Parks should have trails and trail heads installed.
- The Fairgrounds should stay in Manti and have

sidewalks installed, and designate open lawn area to the southeast.

- The pool should have a picnic area added to the north and additional planting.
- The city park needs maintenance and new pavilions and restrooms. A redesign of the park would be beneficial.



Existing Football and Baseball Fields

Proposed Changes to Baseball, Football, and Soccer Field



New Restrooms in the City Park



Existing Restrooms in the City Park



New Pavilion Design in the City Park



Existing Pavilion in the City Park

Potential Problems:

Currently the City Park and Fairgrounds seem to be run down and are an eyesore to people so the park and fairgrounds do not get used as to their full potential. Restrooms are not a great site but are necessary, pavilions seem old, and tennis courts are fenced by a rusting old fence and do



Existing Fairgrounds

Proposed Plan for Fairgrounds and the Aquatic Center



Proposed North & South Entrance Rest Areas



Plan View of North Entrance Rest Area



Perspective of North Entrance Rest Area



North Entrance Rest Area Plaza

Bottom: Plan View of South Entrance Rest Area



Perspective of South Entrance Rest Area

Potential Problems:

The North gateway is over powered by the Temple and resort style sign. Use of the temple as a gateway is important for Manti. The sign works but there should be a better use of the area around the sign. The South gateway is just barren and doesn't seem useable in any way. Speed coming in to town could be a factor in the future.

Proposal:

We propose that the land around the sign be used as a rest area for visitors and those residents who may just want to get away from home and enjoy the outdoors in a park environment.

- Slow traffic by using a center planting island on U.S. 89. Cross walks from one side of the U.S. 89 to the other with a different textured and paving pattern.
- Moving the proposed park across the street as well would help to create an even better gateway.
- Placing information kiosks at these rest areas would help people to get around the city better and if more information is needed, directions to city hall would be on the kiosk.
- Picnic tables at these rest areas would allow people other places and opportunities in the city.
- Trail heads would be at these locations to connect to other trails in and around the city.
- A location in this rest area is designated for a beautiful photo opportunity of the Manti Temple and the welcome sign for the city.



Parking for North Entrance Rest Area



Picnic Tables for Entrance Rest Areas



South Entrance Rest Area Plaza



Parking for South Entrance Rest Area



Downtown Manti and Mainstreet

"Preserving Historical Character and Identity"

UNDERSTANDING:

Settled in 1849 in the heart of Utah, the city of Manti is a place with rich historical significance and heritage. Located in Sanpete County, the city is known for the exquisite LDS Temple, Mormon Miracle Pagoda, and over 100 historical structures built by early Mormon settlers. This proud city has maintained its strong quality of historic character and displays many beautiful architectural buildings, houses, and museums throughout its downtown.



MANTI COMMUNITY VISION:

"To be a beautiful, clean, healthy, safe, friendly small town that is attractive to new businesses and is progressive and organized, while being centered around the community's heritage."
 "This vision has vast possibilities in becoming a working reality that realizes those potentials. Within this charter it is our pleasure to assist those in finding that vision."

IN EXISTENCE:

The city of Manti has gone to great lengths to preserve the identity of their city. It has done a commendable job in restoring much of the existing historic architecture and truly exemplifies the community organization and support necessary for the implementation of these planning phases. To maintain the character of their city, they have emphasized participation with many national programs including the National Tree City Program, National Mainstreet Program, and the Pioneer Communities Heritage Corridor Program. They are currently working towards the establishment of a Revitalization Program and the adoption of a Historic District Overlay. Through continued planning efforts, Manti possesses the unique potential to develop into an attractive growing community while capturing the essence of a the disappearing historic Utah life.



IMPLEMENTATION/GOALS:

"Locate the areas within Downtown Manti and along the highway 89 corridor which should be considered in future planning processes to continue in making the Manti vision a reality."
 "Aspects of planning include expansion of zoning and building ordinances."
 "Enhancement of streetscapes and landscaping through the preservation of Manti's historic buildings and their friendly small town atmosphere and quiet rural lifestyle."





2007 CHARRETTE
A LOOK AT U.S. HERITAGE HIGHWAY 89

GUNNISON

Gunnison "Progress with Purpose"

The history of Gunnison is a deep well of culture and tradition. It includes such treasures as Rocky Point, the family-favorite City Park, a former Jewish settlement and graves, petroglyphs, dinosaur footprints, and the enduring spirit of the pioneers. Gunnison is living up to its motto "Progress with Purpose" but must remember its past.

The economic sources found in Gunnison are widely diverging, from agriculture and livestock to outdoor recreation. The town is both the retail and cultural center for all of Gunnison Valley. With the addition of open trails, parks, and greenways, the economy will only improve. One tangible benefit is the average increase to adjacent property values, usually about 30%. Though developers will argue that developed land will result in higher property tax revenues, the increased demand on public services and infrastructure most often outweigh such revenues, resulting in a net decrease to local governments. Intangible benefits include increased productivity and morale of local workers.

Open trails and parks are proven benefactors to mental, physical, and emotional wellbeing of local residents. The ability to walk, jog, or ride a bike along a greenway, or to simply enjoy a park in a more passive sense, is good for the soul. The opportunities to create such greenways decrease with each passing year, as more and more land is bought up for development. City leaders and local citizens alike will long for the days when such trail networks and city parks could have been more easily created.

Gunnison is the destination of choice for hundreds of families each year. They come for family reunions, 4th of July celebrations, or simply to be home again. With many different recreational opportunities in the area, Gunnison is also becoming a destination for outdoor enthusiasts. This growing popularity should be prepared for and embraced.

ROCKY POINT

While the large G remains a beacon of tradition, the more ancient history found at Rocky Point should be respected and enjoyed. A short hike reveals petroglyphs, dinosaur footprints, and regional geology, which can become both an educational tool and a noted point of interest. These elements lend to a deeper history of the area. This area will become the primary destination along the Farmer's Freeway, providing wonder at such ancient marvels here in Gunnison Valley.



CITY PARK AND DOWNTOWN

The City Park has long been a favorite for family gatherings. The park already serves as a backdrop to the Main Street greenway leading to the Section Riverwalk. Its history should be maintained while also looking ahead to the future. With an updated design and added connections to other greenway nodes, the commercial downtown and civic center this traditional heart of celebration will retain its status as the premiere venue for family recreation.



INDUSTRIAL PARK

A city grows for many reasons, but industry is particularly important. The advance of an industrial park will provide corporations an open, beautifully landscaped and accessible area to locate their businesses. By providing this area close to the community and increasing the housing density in its northeastern neighborhood, Gunnison will become the kind of walkable community companies and workers can enjoy.



CHALK CLIFFS

This popular destination for Boy Scouts and others is in need of restoration and improvement. A riparian restoration center located near the Chalk Cliffs will become an educational tool for all age groups. This area will also become the trailhead to a connection between Gunnison and the river corridor further to the north. By including a campground, opportunities for fishing and recreation, and other amenities, this area will become a premier destination along the Sanpete River corridor.



THE FARMER'S FREEWAY

Next to a marathon, connection to important historical sites, scenic route to lakes and jagged peaks, this beautiful 25-mile loop through the western countryside of Gunnison Valley will be promoted for what it is, a passage through time. With the addition of staggered points of interest along the trail, and increased protection of the Freeway's existence, users will enjoy the scenic history found at Rocky Point and elsewhere along the loop. These points of interest become destinations themselves, providing an enjoyable journey for everyone.



OPEN SPACE PRESERVATION

Gunnison is a beautiful rural community with wide open spaces and big skies. As the city grows, it becomes increasingly important to preserve and maintain the open spaces surrounding the city. This will set Gunnison apart as an open city with space to grow, providing citizens an opportunity to retain their high-valued way of life.



RIVER GREENWAY PARK

The Riverwalk has been recognized as an important anchor to the trails and parks system, and its much-anticipated improvements will help the river corridor remain an appealing destination to all. By improving the river banks with native plants, and continuing the landscape development of key areas, the corridor's sustainability will excel. This will serve as both a recreational and educational experience to visitors of all ages.



NATIONAL FOREST

The nearby Manti-Self National Forest is a haven for the most popular outdoor recreational activities in Utah, including ATV, hiking, and mountain biking. This will only continue to improve Gunnison's standing as a hub for outdoor recreation.

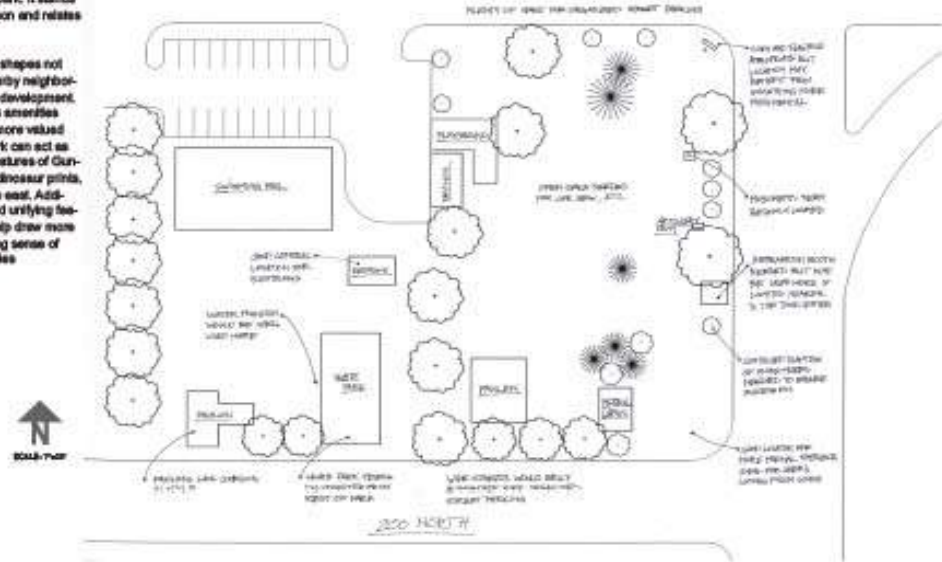


GUNNISON CITY PARK

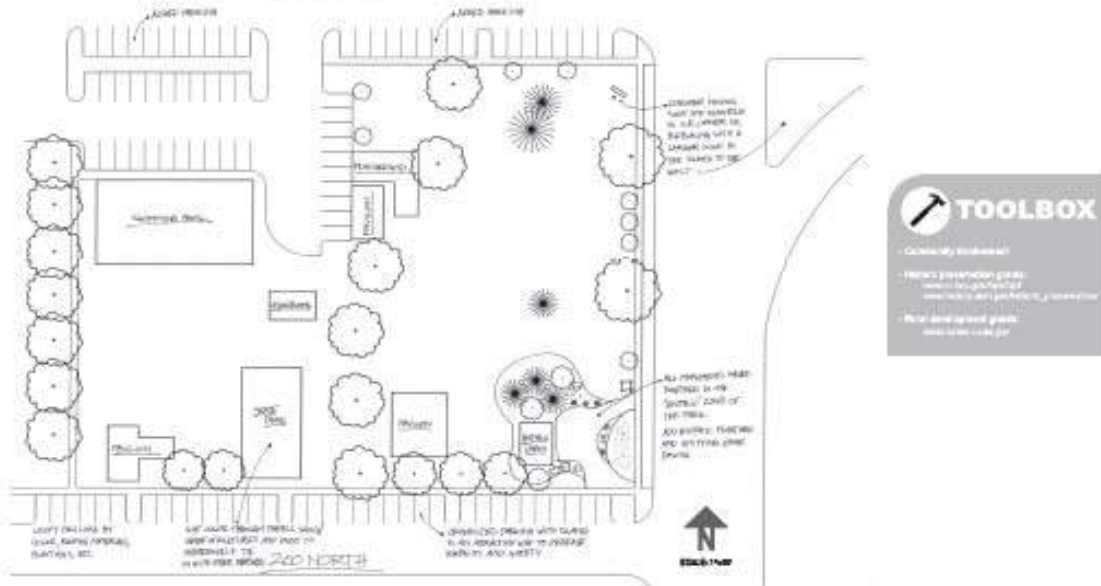
The City Park represents Gunnison's heritage and way of life. Longstanding traditions such as the Fourth of July celebration, family reunions, auto shows, and summer volleyball tournaments all depend on the park. It stands as a symbol of history in Gunnison and relates well to the people of the area.

The image of the City Park shapes not only visitor use, but also the nearby neighborhood investment and economic development. Revitalization of the park and its amenities could transform it into an even more valued asset to the community. The park can act as the linchpin for many unique features of Gunnison such as the petroglyphs, dinosaur prints, and the Farmers Freeway to the east. Additional organization, linkages, and unifying features throughout the park will help draw more users and strengthen the existing sense of community that the park embodies.

ANALYSIS OF EXISTING PARK



RECOMMENDATIONS



GUNNISON CITY PARK







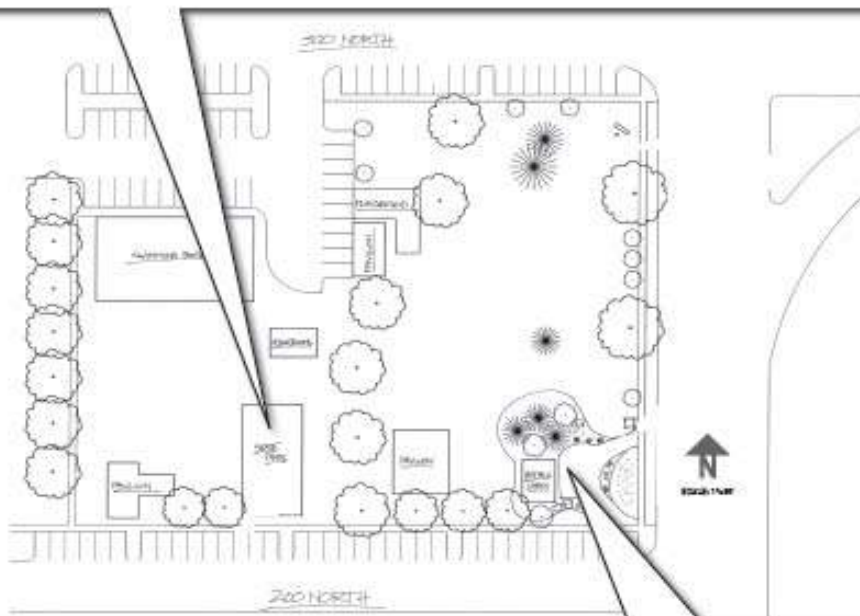
SKATE PARK

Local youth from Gunnison pulled together an amazing 4,000 dollars to build a skate park, which continues to be a very popular activity and well used space. These youth have created a space for which they feel a measure of ownership. This is an excellent example of community involvement that has improved the quality of life.

Given being a great example of community change, the skate park holds more potential. Relatively simple and inexpensive additions would enrich this amenity with its surroundings. Such additions may include: installing colorful tiles to the fence, painting ground or equipment, and shade structures.

TOOLBOX

- Community involvement:
 - What do the residents want? What have leaders from youth to the city? How will the youth take on these projects?
- Place of use for park's structure:
 - www.gunnisoncity.org
 - www.fairviewcity.org
 - www.mtpleasantcity.org



TOOLBOX

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HISTORIC ZONE

Gunnison has rich history that needs telling. The park already holds several important monuments that illustrate that history. The current placement of the monuments lacks visibility and unity. To create a better setting for the monuments, we propose moving them to the southwest corner of the park near the historic cabin. This location lends itself naturally to a historic zone. Grouping the monuments will help visitors appreciate Gunnison's heritage. Native limestone piers creates both walking paths and a place space suitable for both various civic events and casual visitors.



Other related elements could be added as appropriate such as a historical herb garden. The historical zone is an ideal location for this type of installation because of its scale and direct relation to the history of west town settlement.





**&
Oxbow Park**

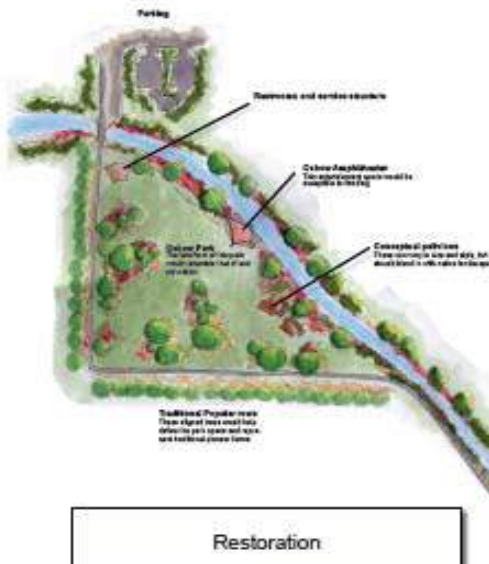
Connection

- Connecting to the Downtown and Gunnison Park
- Connecting the east and west neighborhoods
- Connecting to schools safely



Destination

South Gateway to Gunnison
Oxbow Park
Natural & Cultural Experience

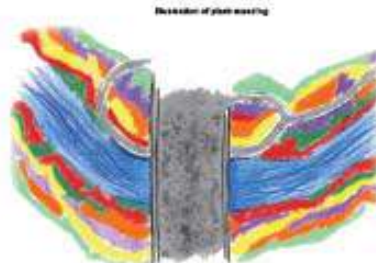


Restoration

*The Natural Conditions:
Reclaiming the Riverbank
Sustainable Design*

Education

- Outdoor Classroom
- Recreation
- Education of the Community



ENVISION

"One way a community can assess and preserve its open space is by developing an open space plan, or including an assessment of open space and recreational resources as part of its comprehensive plan. In this process, a community: 1) categorizes and inventories all of its open space parcels by looking at their use and function within the community, 2) prioritizes the open space parcels for protection, and 3) considers the best way to use and protect them."



"Greenways, trails, bikeways, and railtrails are now mainstream. They are infrastructure."

COOPERATION

Learning is a continuous process, and new issues, resources, and constituents will be discovered at all stages of the process. There will be a great deal of feedback between steps, and returning to earlier steps to make adjustments will be necessary. By allowing for this natural learning process, you don't have to worry about getting everything right the first time you try it.

The benefits of Community Involvement are that it gives the opportunity to:

- Resolve potential conflicts between parties at an early stage;
- Involve stakeholders and local communities knowledge and experience;
- Develop feelings of local ownership;
- Reduce the perception that policy is provided without input from the community.

CONNECTION

Physical connections Connections between people
Connections between associations with common goals Connections to nature
Connections for wildlife Connections to nature



Bicycle Path

This type of bike path is a completely separate right-of-way for the primary use of bicycles. For existing pathways vegetation should be added to create a buffer between bicycles and vehicular traffic.



Recreation Trails

This type of trail system is located along existing canals and river systems. They will connect users to recreational opportunities found within the city. It is recommended that these trails should be 10' wide to allow for maintenance vehicles.



Shared Roadways

This type of bike path refers to a right-of-way on the edge of a road designated by signs or permanent markings as a bicycle route, but which is also shared with pedestrians and motorists.

PRESERVATION

"Smart growth uses the term "open space" broadly to mean natural areas both in and surrounding localities that provide important community space, habitat for plants and animals, recreational opportunities, farm and ranch land, places of natural beauty and critical environmental areas. Open space preservation supports smart growth goals by bolstering local economies, preserving critical environmental areas, improving our communities quality of life, and guiding new growth into existing communities."



In a rural community where there are farmsteads in typical arrangements such as this one (on the left), consider having new development follow a pattern shown at the right. New development can be accommodated while still preserving the landscape character and preserving farm lands.

Clustering

Clustering is a method to accommodate development and preservation at the same time. It allows development, at a higher than normal density on portions of a property that do not contain valuable resources and preserves environmentally sensitive or scenic lands, or agricultural lands in other areas of the site. The resulting open space areas are protected by deed restriction or easement.

Incentives for clustering often lead to the placement of home sites on marginal agricultural land. This lowers the impact of residential development on the natural landscape and minimizes the cost of providing public services to newer homes which are located more closely together.



CLUSTERING

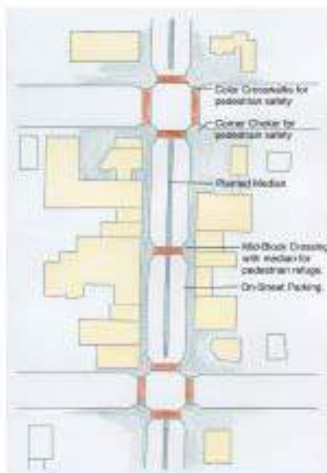




Gunnison City Concept Map

Traffic

Semi-truck traffic has a major negative impact on downtown Gunnison, with a truck passing every 80 seconds. This is a safety concern as well as a noise issue. There is currently a decrease in the speed limit through the downtown area, but official and physical enforcement measures are needed to make downtown a safer place for pedestrians. Traffic-calming measures such as those have been implemented in towns across the country.



Utah has adopted AASHTO guidelines (January 2001, Planning Magazine) which regulate the speeds and the adoption of pedestrian friendly environments. Some AASHTO guidelines include design speeds, lane widths, street trees, corners, mid-block crossings, pedestrian refuge islands, on-street parking, and sidewalks.

According to TrafficCalming.org chokers and narrowed lanes, as illustrated in figure "X", decreased speeds an average of 7%. Chokers decreased speeds up to 14%. Slower speeds contribute to pedestrian safety and could be funded through UDOT's Road Safety Improvement program. These devices can also have a positive aesthetic impact, can provide planting spaces, and are relatively inexpensive.

The improved pedestrian environment can create more street life, which could facilitate a dramatic improvement in the economic vitality of the downtown core.

As vehicles slow down the vernacular architecture of the downtown core is reinforced to passing motorists. This too will increase economic activity as parked cars and pedestrians can entice passing motorists to fulfill their curiosity and investigate the core.

Define Downtown

It is important as the city grows to define the core economic and cultural downtown area. The median proposed for traffic calming through this three-block area will also set it apart visually. Sidewalks should run the full length of the town and provide places to stop and rest.

Zoning Concerns

To promote and maintain an economic core the Gunnison City Council should carefully consider rezoning areas of Main Street particularly on the three-block area identified as the future urban core. This area should be zoned for commercial development and open space or "pocket parks". Density guidelines should be included in the zoning with a grandfather provision for existing property owners.

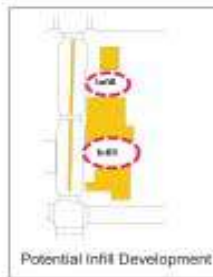
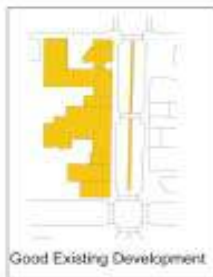
Identify Gateways

A city's identity is crucial to promoting name recognition. People should know when they enter and leave Gunnison. To mark the north end of town a "gateway" should be created at the intersection of 2nd north and Main Street just south of the city park. A prime location for the gateway on the south end is the intersection of HW89 and 2nd south, where the land rises.

Urban Trails

The Gunnison city park at the north end of town and the river parkway and trail system at the south should be connected via an urban trail running down the west side of Main Street. This connection will be emphasized by the proposed town square between 1st and 2nd south, and could also be emphasized by other "pocket parks" along the way.





Commercial building density

Increased commercial density can improve the overall aesthetics, and workability of the downtown core. If the buildings are close together it is easy to shop there. If they are too far away and you need a car you might choose to shop somewhere else.

To improve the cohesiveness of the downtown core, building densities should be uniform on all three blocks, as illustrated in the graphic to the left.

Development

The empty shops in the core downtown area detract from the cities character. Occupying and repairing these buildings will do much to revitalize the downtown area and the Gunnison economy. Residents should carefully consider their talents, interests, and needs and then call on their entrepreneurial spirit to establish businesses appropriate for, and sustainable in, the area. Special accommodations could be made to get these types of businesses into vacant buildings in downtown.

Signage Ordinances

The Gunnison City Council should create a commercial signage ordinance. The ordinance should address sign size, height, type, material used, and whether signs may jut out or lie flat on buildings. The city can also look at more options for street level signs for pedestrian benefit downtown. One good example of use of signs is the Dorius Law Office and HSR buildings. Their signs are visible and attractively fit without being obtrusive. It would be beneficial to look at ordinances developed by other cities.



New civic center

Our intent with the design of the new civic center is to incorporate City Hall into the downtown area, and provide a town square. This is a common place where the whole community can gather. It can function as a formal place of Government that is ADA accessible. We chose the corner of Main and 1st south as the location based on: traditional community activities, visibility from the street, and proximity to the pedestrian downtown core. This town square can be a place of cultural celebration, integrating traditions and events with the economics of the downtown core. This park can compliment the pedestrian friendly downtown businesses with an open area on the North side of the New Civic Hall. This park could be used for recreational activities, a picnic area during a block party, or a place to view the 4th of July parade. We have also provided a space for the annual Christmas tree lighting. Parking has been provided on the South side of the building which connects to an alley behind the building for better circulation.



Before

Architectural Guidelines

The Gunnison City Council should implement architectural style guidelines governing street lighting, building facades, public garbage cans along Main Street, benches, street signs, commercial signs, etc. This will create and maintain a desired atmosphere and experience in Gunnison in the face of future growth.



After





Highway 89 and 28 Intersection

The intersection between Highway 89 and 28 is a bit confusing and upon approaching the intersection there is a sense uncertainty of arrival and direction. The town lacks enclosure, depth, and color at the north gateway and is in need of a traffic calming solution.

One solution that would help communicate arrival, direction, and a warm welcome, as well as calm traffic at this intersection, would be to add street trees and park strips alongside the roads. To help maximize views and screen eyesores, such as the prison, a massing of trees should be planted at the intersection of 89 and 28 to the west and north.



Art

To showcase the characteristics and talents of the residents of Gunnison as well as to beautify the city, sculpture by local artists can be placed at city gateways, on sidewalks, and in parks. The median in the downtown area can also be used. Blank walls on the sides of buildings can be used for murals, mosaics, or paintings of historical and aesthetic value. Artwork or historic stories can also be incorporated into the sidewalks of the core downtown to provide visual interest in that area.



Island Art Interpretation

The island at the intersection of 89 and 28 has a lot of potential for a grand welcome and future landmark of Gunnison. This would be a great location where local art could be displayed to help portray the heritage of this unique place. Three planters could be placed in the island representing the history of Gunnison in its early developmental years. The two smaller planters represent Kearns and Chalk Hill Point. The dry creek river meandering through the island represents Sanpich River. The larger planter in the middle would represent how Kearns and Chalk Hill Point settlers merged together by counsel of Brigham Young for reasons of flooding to form Gunnison City as it is now. In the center, would be placed a sculpture representing the founders of Gunnison or some other special piece of artwork that could tell a story about the history of this valley. The plantings within the island and alongside the park strips could be a representation of the valley landscape with grasses, low shrubs, flowers, and rocks typical of the valley. Symbolism within the design of the landscape will add depth and differentiate the community from all others, emphasizing Gunnison's uniqueness.



A Sample Inventory

The following is a sample inventory of heritage, recreational, and educational resources found in the MPNHA, categorized by resource type. A full inventory is located in the Supporting Reference Materials, including the Corridor Management Plan for Scenic Byway 12.

National Historic Sites and Districts

- Fruita Rural Historic District
- Mt. Pleasant's Main Street
- Panguitch City
- Spring City Historic District
- Star Ranch
- Town centers of Kanab, Orderville, and Glendale
- Wasatch Academy

Preserve America and National Main Street Communities

- Escalante
- Kanab
- Manti
- Mt. Pleasant
- Panguitch

National Parks

- Bryce Canyon—rock pinnacles and canyon scenery on the eastern edge of the Paunsaugunt Plateau form the scenic beauty of this park
- Capitol Reef—unique canyon scenery with upturned, folded rock formations along the Waterpocket Fold
- Zion—spectacular scenery, views, and overlooks

National Monuments

- Grand Staircase-Escalante National Monument—desert canyons and plateaus



Figure 1: Grand Staircase-Escalante National Monument

National Forests

- Dixie National Forest
- Fishlake National Forest
- Manti-La Sal National Forest

National Recreation Areas

- Glen Canyon National Recreational Area

National Resource Lands

- Lands administered by the BLM and available for recreational use

State Parks

- Anasazi Indian Village
- Coral Pink Sand Dunes
- Escalante
- Fremont Indian
- Kodachrome Basin
- Otter Creek
- Palisade
- Piute

State Wildlife and Management Areas

- Appletree
- Big Hollow
- Bicknell Bottoms
- Blackhill
- Ephraim Canyon
- Hilltop
- Manti Face
- Manti Meadows
- Mayfield
- Nine Mile
- Richfield
- South Nebo

National Scenic and Historic Byways

- Energy Loop: Huntington-Eccles Canyon (SR 31 from Huntington to Fairview; SR 264 and SR 96 from Fairview to Colton)
- Scenic Byway 12 (from its junction with U.S.-89 to Torrey)

State Scenic Byways

- Fishlake Scenic Byway (SR 25 between SR 24 and SR 72)
- Beaver Canyon Scenic Byway (SR 153 from Beaver to Elk Meadows)
- Capitol Reef Scenic Byway (SR 24 from Loa to Hanksville)
- Markagunt Scenic Byway (SR 14 from Cedar City to its junction with U.S.-89)
- Mt. Carmel Scenic Byway (U.S.-89 from Kanab to its junction with SR 12)
- Patchwork Parkway (SR 143 from Parowan to Panguitch)
- Zion Park Scenic Byway (SR 9 from I-15 to junction at Mt. Carmel)

County Historic Buildings

Sanpete County

- Ephraim Co-op, 1871
- Fairview Museum of History and Art
- Fountain Green Social Hall, 1891
- Heritage Village, Mt. Pleasant
- Manti Temple
- Moroni Opera House, 1890
- Old Pioneer Museum, Mt. Pleasant
- Wasatch Academy

Sevier County

- Glenwood Co-op Store, 1878
- Joseph Wall Gristmill, 1874
- Ralph Barney House (famous Mormon furniture maker), 1873, Richfield
- Redmond Town Hall, 1881

Piute County

- John & Ella Morill House, 1895, Junction
- Kimberly Ghost Town
- Pines Hotel, 1890, Marysvale
- Piute County Courthouse, 1903, Junction

Wayne County

- Hanksville LDS Meetinghouse, 1911
- Hans Peter Nielsen Gristmill, 1890
- Teasdale Tithing Granary

- Torrey Log Church/Schoolhouse

Garfield County

- Daughters of the Utah Pioneers Museum, Escalante
- Daughters of the Utah Pioneers Museum, Panguitch
- Edison Alvey Museum, Escalante
- Escalante Tithing Office, 1884
- M. Parker (Butch Cassidy), Cabin, c. 1879, Circleville
- Panguitch Social Hall, 1900

Kane County

- Daughters of Utah Pioneers Museum, Orderville
- Heritage House in Kanab
- Maynard Dixon and Edith Hamlin House and Studio, Mt. Carmel
- Mt. Carmel School and Church, c. 1890
- Home of William Derby Johnson, Jr., House (Cole's Hotel), Kanab

Heritage Events

Little Denmark

- Ephraim Scandinavian Festival
- Heritage Fly-In
- Horseshoe Mountain Pottery Sale and Heritage Music
- Hub City Days and Soap Box Derby
- Lace Making Days
- Lamb Days
- Mountain Man Rendezvous
- Mormon Miracle Pageant
- Pioneer Days
- Rhubarb Festival and Ugly Truck Contest
- Spring City Heritage Days

Sevier Valley

- Fremont Indian State Park
- Rocky Mountain ATV Jamboree
- San Rafael Trapping Party Mountain Man Rendezvous
- Western Heritage at the Black Hawk Arena

Headwaters

- Hometown Christmas Craft Fair
- Marysvale Town Reunion
- Long Valley Heritage Celebration
- Native American Powwow

- Panguitch Hometown Christmas Fair
- Panguitch Quilt Walk
- Panguitch Homecoming Celebration
- Under the Rim
- Biplane Fly-In
- Duck Creek Days
- Kaibab Paiute Heritage Day Powwow
- Kanab Highway 89 Days
- Southern Utah Bluegrass Festival
- Western Legends Roundup

Boulder Loop

- Bicknell International Film Festival
- Bryce Canyon Country Rodeo
- Entrada Institute
- High Country Quilters Show and Big Apple Days
- Old-Time Fiddlers and Bear Festival
- Wide Hollow Fishing Derby

MPNHA Supporting Historic Information

Historical Overview by County

The Mormon pioneer experience has directly affected the Mormon Pioneer National Heritage Area's (MPNHA) natural environment, physical form, and social framework—from the architecture of the buildings and homes to the roads, communities, culture, and open space.

Garfield and Kane Counties

Pioneers who originally settled in an area known as Muddy River in present-day Nevada, returned to Utah and settled in a community they named Orderville. The name of this new community came from the pioneers' practice of the United Order, a social experiment in which all property was held in common. The pioneers ate their meals in a common dining room, raised livestock as a community, worshiped together, and coordinated other economic activities through a community board of directors. Orderville and neighboring Glendale were the longest lasting and most successful of the territory's United Order communities. The historic Rock Church in the area is now a museum that contains pictures and dioramas of the United Order era.



Figure 1: The Rock Church in Mt. Carmel, Utah

On the southern end of the corridor, Kane County's prehistoric Indian dwellers were part of the Hisatsinom culture, which existed in the area until approximately 1250 AD.

Archaeologists have recorded hundreds of Hisatsinom sites on Fifty Mile Mountain within Grand Staircase-Escalante National Monument. Only a few have been excavated. The Southern Paiutes occupied the county in more recent historic times.



Figure 2: MPNHA Native Americans

Several southern corridor towns, including Kanab, were first settled in the mid-1860s.

Kanab was resettled in 1870 by Levi Stewart and others at the request of Brigham Young. In March 1874, Young encouraged the formation of a United Order in Kanab. It did not last as long as its counterpart in Orderville.

During the 19th and early 20th centuries a majority of Kane County's residents were farmers or ranchers. However, another dimension of activity was added in 1922 when *Deadwood Coach*, a movie starring Tom Mix, was filmed in the Kanab area. By the 1930s, Kanab was called Little Hollywood because of extensive movie filming.

The 1920s and 1930s also saw rapid tourism development centered on the popularity of Bryce Canyon, Zion, and Grand Canyon national parks. In addition, during the construction of Glen Canyon Dam, which began in 1956, Kanab's population doubled and its economy expanded.

The Native Americans (the Hisatsinom, Fremont, Southern Paiutes, and Utes) lived in the areas of Garfield and Kane counties before the Mormon expansion. The first white settlers made the difficult trip from Beaver and Parowan through the mountains to Panguitch in March 1864. The young community was abandoned during the Black Hawk War (1865–68), a battle fought between the Native Americans and settlers over possession of lands, and was not resettled until 1871. Boulder, a small community located to the east of Panguitch, was settled in 1889 and was the most isolated town in Utah until the mid-1930s, when Civilian Conservation Workers (CCC) constructed a road connecting it to Escalante.

Vast rangelands and some of the state's largest forest reserves have made cattle

ranching and lumber Garfield County's most important industries since pioneer times. The creation of Bryce Canyon National Park in 1928 increased the importance of tourism to the local economy. Sections of Capitol Reef National Park and Glen Canyon National Recreational Area that lie within the county remained highly inaccessible into the late 1980s. However, they now draw tourists to the area.

Wayne County

In May 1892, Wayne County was carved from Piute County. Most of the new county's towns were settled after 1880 because of its remote location and limited resources.

Raising livestock is the oldest and traditionally most important industry in this area; although today tourism adds an important dimension to the county's economy. The creation of national forests in the early-20th century reduced the number of cattle that could be grazed in western Wayne County, and cattle rustling by the notorious Robbers Roost gang threatened ranchers until the late 1890s.

During the Great Depression, the Works Progress Administration (WPA) provided funds to build a courthouse in Loa. The CCC operated three camps in the county, building roads, campgrounds, and small water projects.



Figure 3: Bunks in a CCC bunkhouse

In Wayne County, scientists have identified the remains of extinct Pleistocene species such as the sloth, horse, mammoth, bison, and camel. Scientists have also dated Archaic and Fremont Indian sites (e.g., the Cowboy Caves) to between 6300 BC and 450 AD. In historic times, the county was also part of the Ute Indian's domain.

Horseshoe (Barrier) Canyon and the Maze section of Canyonlands in eastern Wayne County contain spectacular pictographs.

Sevier and Piute Counties

Before the pioneers arrived, Sevier Valley and the surrounding country were claimed by Indian Chief Sowiatt, half-brother of Chiefs Walker and Arapien. Their bands numbered in the hundreds, and their hunting grounds were plentiful.

The Mormons arrived in 1864, settling the areas near present-day Richfield. The community was abandoned during the Black Hawk War and was not resettled until 1870. Many of Sevier County's early settlers were Scandinavians who brought distinctive building styles and cultural practices with them.



Figure 4: Early home in Sevier County
(© Copyright 2007 onlineutah.com, Kathy M. Wiersdorf)

Evidence of prehistoric inhabitants has been found in the caves of Kingston Canyon in Piute County. The Fremont and Paiute tribes also occupied the area. Then the pioneers came.

The cultures of the Native Americans and the pioneers conflicted, and the struggle that emerged centered on the concept of land and how it should be used. When the first Anglo families—25 in number—arrived in the Sevier Valley in the spring of 1864 and started building homes, the Native Americans observed the newcomers. They were especially intrigued when a ditch was dug from what was called Warm Springs Creek.

The pioneers had planted about 10 acres of wheat and some oats, and the irrigation ditch did its job. The grain grew so well that the town was changed from its original name of Omni to Richfield. The water and soil in the Sevier Valley provided the settlers with the resources they needed to develop an agricultural-based economy.

Circleville, the boyhood home of Butch Cassidy, was settled in 1864 by a group of pioneers from Ephraim. Another group of Mormons settled the neighboring town of Junction in the same year.

In nearby Marysvale, the earth's riches played an important role in the economy, with a mining boom appearing in the late 1800s and early 1900s. Today, Big Rock Candy Mountain stands in full color where mining for gold once blossomed.

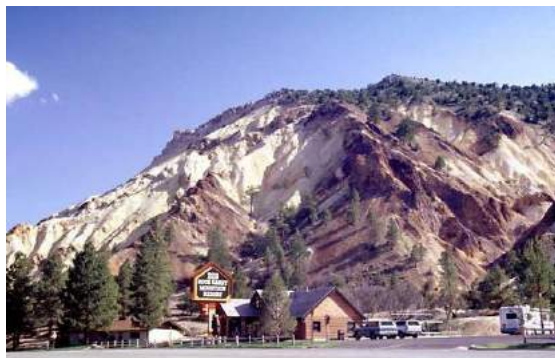


Figure 5: Big Rock Candy Mountain

In Sevier Valley, Fremont sites continue to be found, especially during construction projects. Fremont State Park preserves artifacts from a recently discovered prehistoric village. In November 1983, the largest known Fremont village was uncovered. The site includes 80 residential structures and pit houses and many storage granaries. Several tons of cultural material have been found, including pottery, arrowheads, and grinding stones. All of the discovered materials are now on

display in the visitor center, which includes a museum with information about Fremont and present-day Native Americans. A replica of a Fremont pithouse is located nearby. Trails throughout the park allow one to view the rock art and visit other points of interest.

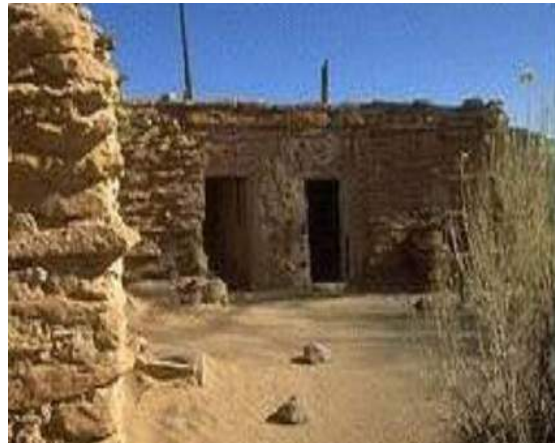


Figure 6: Fremont State Park Sevier County

Sanpete County

The Sanpete area's prehistoric inhabitants include the Fremont-Sevier agriculturalists who disappeared around AD 1300.

Mounds have yielded small stone- and mud-walled structures, as well as pottery, points, and metates, but Sanpete has not been systematically studied as have areas to the south and east.

Ute Chief Wakara enslaved local San Pitch Indians, who gathered and hunted in the local marshes and canyons. The Utes had adopted the horse and other trappings of Plains Indian Culture and ranged widely from an apparent winter base in Sanpete County. Wakara at first invited Mormon settlement, perhaps for the resources it would bring, and then opposed it in a war during 1853–54, which caused a period of “forting up” and the abandonment of area towns. The Black Hawk War, a more

serious and prolonged series of guerrilla raids, also disrupted county settlement.

The first Mormon settlers arrived in the area in the fall of 1849. They chose the Manti site because of a nearby warm spring, the extensive limestone quarries (later exploited commercially), and the fine farming and grazing lands nearby. The county's larger towns were established in the first decade of settlement. Scandinavian immigrants soon made up a sizable minority, and elements of their culture and humor remain today.

The Mormon Pioneer Influence

The story of the Mormon pioneers is one of the most compelling and captivating in our nation's history. After traveling 1,400 miles from Illinois either by wagon or by handcart, the pioneers arrived at the great Salt Lake Valley. Along the way, the pioneers experienced many hardships, including starvation, dehydration, and exposure to the elements. Many pioneers died during the journey.

Most residents of Utah and some visitors are aware of the general story of the Mormon pioneers—how they entered the Great Salt Lake Valley and commenced a colonization effort. People in general, however, are not aware of the pioneer landscape that illustrated the early Mormon settlements, since urbanization has encroached on the settlement patterns that were characteristic of the pioneer experience.

The small towns along the corridor convey this heritage, offering a rich opportunity for schoolchildren, parents, and others in the state's more populous counties and for visitors at-large to understand and

appreciate the colonization heritage of the Mormon pioneers. For example, residents of Panguitch celebrate Quilt Days every year to commemorate the sacrifice and fortitude of the area's early settlers, whose efforts saved the community from starvation in 1864.



Figure 7: The Quilt Walk Festival

Quilt Days memorializes the Quilt Walk, in which a group of men from Panguitch attempted to cross over the mountains to Parowan, a community to the west, to procure food during the community's first winter. Because of deep snows, the pioneers were unable to trek across the mountains. Using quilts, these men formed a path that supported their weight. Using this unique form of "snowshoes," the men ultimately reached their destination, obtained food, and returned to Panguitch.

Other remarkable stories that took place throughout the heritage area demonstrate the tenacity of the Mormon pioneers. At times, in order to survive, the pioneers had to overcome major natural obstacles. One such obstacle was Hole in the Rock.



Figure 8: Hole in the Rock reenactment

In 1880, a group of 250 people, 80 wagons, and 1,000 head of cattle came upon the Colorado River Gorge. After searching to find an acceptable path to the river, the pioneers found a narrow crevice leading to the bottom of the gorge. Because the crevice was too narrow to accommodate their wagons, the pioneers spent six weeks enlarging the crevice by hand, using hammers, chisels, and blasting powder, so wagons could pass. Today the Hole in the Rock stands as a monument to the resourcefulness of the Mormon pioneers.

Soon after Mormons arrived in Utah, Brigham Young announced his intention to spread the new Zion from the Rocky Mountains west to the Sierra Nevada. The northern border of the territory would be Oregon and the southern border Mexico.

Parts of California would be annexed as well, in part to bring Mormon immigrants by sea rather than over the rough land crossing from the east.

Young instituted a pattern of establishing towns and way stations approximately one day's journey apart, along a "Mormon Corridor" meant to connect Salt Lake City with the Pacific Ocean. This corridor is now I-15. When Senator Robert F. Bennett first articulated his support for the MPNHA, he said that when he was young and traveled throughout the state with his father, the late U.S. Senator Wallace Bennett, they would go south on what was then U.S. Highway 91 and return north on U.S. Highway 89, or vice versa.

Senator Bennett also noted that with I-15, the traveler cannot get a feel for the towns that reflect the heritage of Mormon colonization. That, he said, can only be found along the Highway 89 corridor. It is crucial, noted Senator Bennett, to maintain and preserve the heritage of the small towns along Highway 89 and the Boulder Loop of Scenic Byway 12 (Utah's first All-American Road), and Capitol Reef Country Scenic Byway (SR 24).

Native American Influence

Fremont State Park and the Anasazi Indian village are the two best examples of the impact of Native Americans on the landscape. In addition, the story of Native Americans permeates the region, from the names of towns to numerous archaeological sites.

Native Americans lived in Sevier County as early as 11,000 BC, as illustrated by a weapon point identified as a Clovis fluted point that was discovered near Lake Accord in northeastern Sevier County. Prehistoric Native Americans used such

points to hunt mammoth. The Paleo-Native Americans attached the points to spears and used the weapons to hunt big game that lived near ancient lakes and marshes such as ancient Accord Lake.

Several anthropologists have theorized that the Paleo-Native Americans who used the Clovis points lived during a period of transition. Archaeologists later identified this new culture as the Western Desert Archaic culture.

Native Americans identified by anthropologists as Paleo-Native Americans (10,000 BC to 7500 BC) were followed by the western Archaic culture (7500 BC to AD 500), and then the Fremont culture (AD 500 to about AD 1300).

Native Americans played an integral role in the MPNHA's natural setting—a role that is manifest in the Anasazi Indian Village, at Fremont Indian State Park, and in the winding trails of Highway 89. Chief Black Hawk and his people struggled to preserve the lands from pioneer encroachment and found themselves embroiled in a classic clash of cultures. The intensity of the struggle can be seen in interpretive displays and battle site markings that show the triangle of distrust that developed among settlers, Native Americans, and the U.S. Army.



Figure 9: Anasazi Indian dwelling

The Anasazi are the ancestors of the modern Pueblo Indians. They settled and farmed in the Four Corners Region (where Utah, New Mexico, Arizona, and Colorado meet) between AD 1 and AD 1300. The Anasazi produced fine baskets, pottery, cloth, and tools. They left thousands of stone houses, cliff dwellings, and goods behind.

Anasazi is a Navajo word usually translated as “Ancient Ones.”

Archaeologists use the term to describe the basket-maker Pueblo Indian culture. They were a creative people who produced corn, squash, and beans and domesticated the turkey. They supplemented their diet by hunting game.

Beginning at about the start of the Christian era, the Western Desert Archaic people were replaced by a new group of people whom archaeologists identify as the Fremont culture.

The Fremont culture was first identified in 1931 from archaeological sites found along the Fremont River in Wayne County near Capitol Reef National Monument (later to be a national park). Thus, the Native American link to all of the counties along the corridor can be seen. The Fremont culture flourished in the region until about AD 1300 when, like their predecessors, the Fremont people disappeared and were either absorbed or replaced by Numic-speaking Native Americans from the American Southwest. The San Pitch Native Americans came after the Fremont-Sevier agriculturalists. They occupied the area drained by the San Pitch and Upper Sevier River.



Figure 10: Early Fremont dwelling

Whatever its origin, the Fremont culture left much evidence of its existence in Sevier County and other areas of the region. This legacy is preserved at several important sites. Fremont dwellings and food storage structures showing where the people lived in relation to the physical environment, the tools they used, societal artifacts, and their artwork provide trained archaeologists and others valuable windows through which to study these early inhabitants of the region.



Figure 11: Fremont State Park



SCENIC BYWAY 12

Corridor Management Plan

SCENIC BYWAY 12

Corridor Management Plan



Prepared for:

Garfield County and Wayne County Commissions

Prepared by:

Five County Association of Governments,
planning consultants

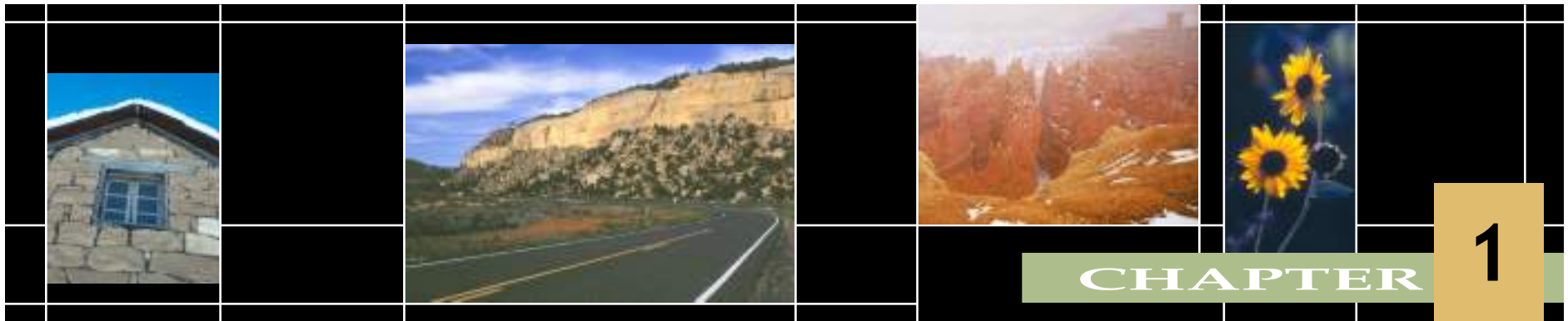
December 2001

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Introduction

Utah's Scenic Byway 12 is one of the most spectacular roads in the country. It stretches 124 miles across a richly varied landscape and serves as the main artery through this remote and rugged region of the Colorado Plateau. Its sensational scenery draws people from all over the world to journey through unforgettable terrain and time.

Scenic Byway 12 traverses the south central portion of the state of Utah, running in a southwest to northeast direction that travels through several ecosystems, from sage flats to ponderosa pine forests to slickrock deserts to quaking aspen stands. It lies between Bryce Canyon and Capitol Reef National Parks and travels through Dixie National Forest as well as the northern part of Grand Staircase-Escalante National Monument. The road travels through landscapes that span elevations ranging from 4,000 feet at the Escalante River to 11,000 feet at the top of Boulder Mountain. Travelers encounter archeological, cultural, historical, natural, recreational and scenic qualities while driving this unique and thrilling byway.




Scenic Byway 12 is the only principal through highway that runs east of Panguitch and links U.S. 89 with S.R. 24. It is the lifeblood of the region. To some, this byway supports their very livelihood and to most it

is a way to and from home. To the traveler, Scenic Byway 12 is a destination unto itself and the way into this remote region that affords a seamless transition through publicly-owned, state and private lands.

Scenic Byway 12 was designated a National Forest Scenic Byway in 1988. State Scenic Byway designation followed in April of 1990. It was among the first state highways in Utah to gain this status. Then in early 2001, local stakeholders decided to come together and plan for the future of this valuable resource and to consider pursuing All-American Road designation. This corridor management plan is a result of that collaborative effort.



-Western US context of Scenic Byway 12

National Scenic Byways Program

The National Scenic Byways Program was created as a part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). This was the first piece of transportation legislation to provide programs and funds to do more than construct or maintain highways. The legislation enabled communities to seek funding to enhance highway corridors through such projects as building picnic areas, constructing rest areas, or installing wayside interpretive exhibits.

Through community support, the corridor management plan may be used to apply for National Scenic Byway Designation, specifically All-American Road status. All-American Road status is the most prestigious of the national scenic byway



- Old gas station in Boulder, Utah,
alongside Scenic Byway 12

designations. It provides national and international marketing and may open doors to new and significant funding for scenic byway corridor improvement and preservation projects.

Purpose of a Corridor Management Plan

A corridor management plan (CMP) is a document that details the future strategies and actions for management of the byway. The plan is one that is compiled by the people of the local communities who have a vested interest in the protection and enhancement of the byway and its corridor. It is important to note that the CMP is not an instrument to regulate conditions, mandate changes, or condemn private property. The plan identifies the special qualities of the byway corridor and addresses how to sustain the character of Scenic Byway 12.

This corridor management plan can be used as a means to consolidate the ideas of those who live along Scenic Byway 12, communicate concerns, facilitate conflict, avoid redundancy, initiate byway pride and strive to protect the valuable resources. However, it is important to note that the CMP cannot solve all the issues; it is an outline of the goals and strategies for Scenic Byway 12.


Scenic Byway 12 serves as the gateway to a region that is rich in multiple intrinsic qualities and

deserves the security of a CMP that outlines the planning strategies and actions for the future.

The partners who engage in developing a future plan for the highway can vary. Examples of various partners and their potential interests include:

- *Mayors and city councils of towns that have an interest to represent the needs of their people.*
- *Local town and county government planning commissions that prepare and administer local general plans and zoning ordinances.*
- *A federal or state agency responsible for managing lands along the corridor.*
- *A state transportation agency responsible for the safety and maintenance of the byway.*
- *A county travel council responsible for promoting the region for tourism and economic development while also encouraging protection of the resources.*
- *A city or town responsible for improving or developing infrastructure within the byway corridor.*
- *Residents concerned about actions occurring in the byway corridor.*

Many entities have compelling reasons to participate in the preparation of a CMP that captures the vision and aspirations of the byway corridor.

				
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Protection of Private Property Rights

Not only is this corridor management plan intended to provide a tool to protect the intrinsic values along Scenic Byway 12, but also it is intended to protect the private property rights of those who own land or live on lands that lie within or adjacent to the corridor boundaries. Therefore, the following principles are made an integral part of this CMP and are intended to guide in the planning and implementation process.

- **THIS CMP WILL NOT HAVE AN EFFECT ON THE AUTHORITY OF LOCAL GOVERNMENT:** Nothing in this CMP will be construed to modify, enlarge, or diminish any authority of federal, state, or local governments to regulate any use of land under any other law or regulation.
- **THIS CMP DOES NOT HAVE ZONING OR LAND USE POWERS:** Nothing in this CMP shall be construed to grant any additional powers of zoning or land use control to anyone.
- **THIS CMP WILL NOT AFFECT LOCAL AUTHORITY AND PRIVATE PROPERTY:** Nothing in this CMP shall be construed to effect or to authorize any committee, agency, group, or official related to this CMP, to interfere with the

rights of any person with respect to private property; or any local zoning ordinance or land use plan of the State of Utah or a political subdivision thereof.

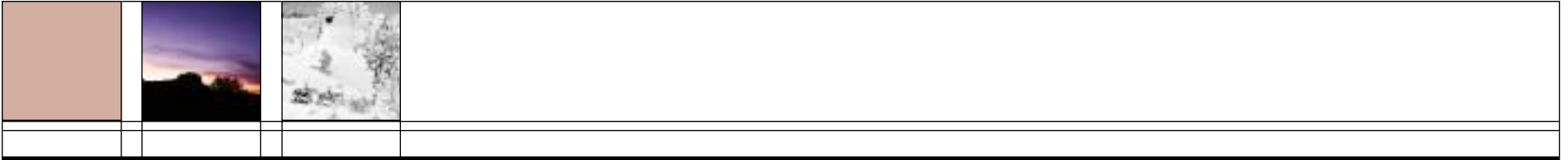
- **THIS CMP WILL NOT LIMIT COMMERCIAL DEVELOPMENT:** Nothing in this CMP will be construed as granting any authority to limit, in any manner commercial development.

This CMP is a neutral document neither limiting, nor promoting, development.

- **THIS CMP WILL RECOGNIZE THE GROWTH BOUNDARIES AND THE RELATED ANNEXATION PLANS OF EACH COMMUNITY ALONG THE CORRIDOR AS PROVIDED BY UTAH LAW.**



-Aerial photo of Cannonville, Utah, with Scenic Byway 12 passing through the landscape.



Scenic Byway 12 Description

Traveling from west to east, Scenic Byway 12 winds its way through red rock hoodoos, high plateaus, tiny rural communities, slickrock deserts, as well as pine and aspen forests. It travels through Garfield and Wayne Counties, the home of three national parks, three state parks, a national

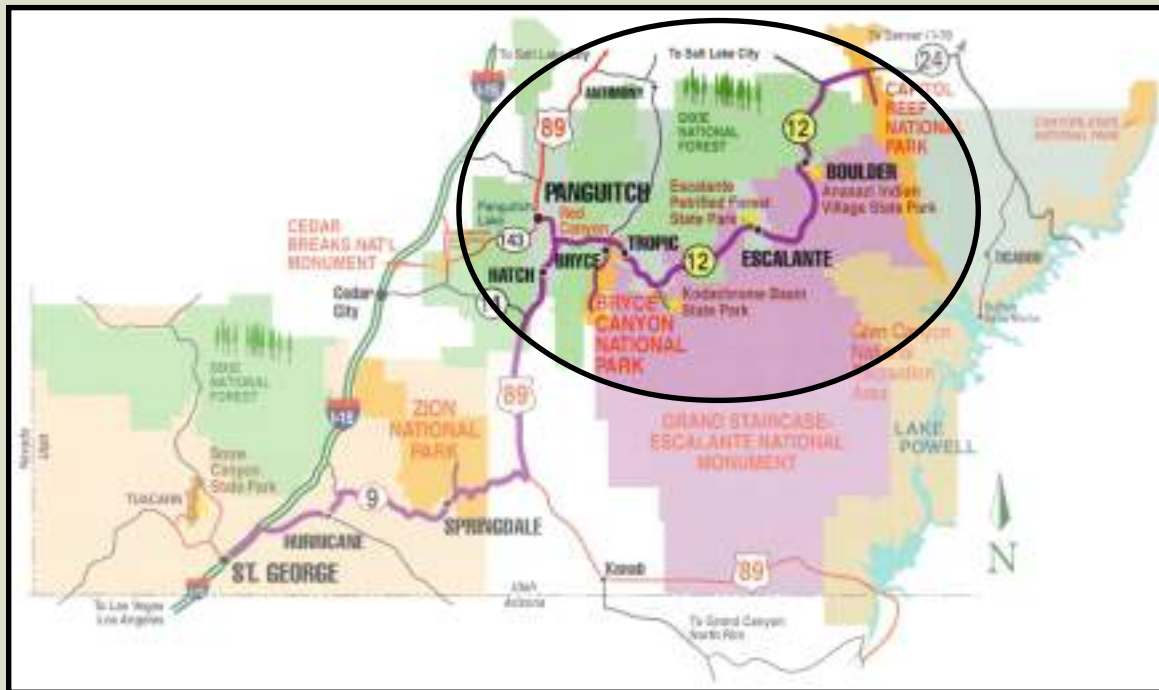
recreation area, and a national monument. The views along this route are breathtaking and the experience of driving Scenic Byway 12 makes an impression that lasts a lifetime.

The gateway of Scenic Byway 12 begins at the junction of U.S. Highway 89 where the road crosses the Sevier River which has meandered and cut through the valley, forming the west end of the Scenic Byway 12 corridor. The byway then winds

through Dixie National Forest's spectacular Red Canyon. Cutting through the burnt orange and pink towering pinnacles and hoodoos, that were formed by erosion of the sandstone of the Claron Formation, the road climbs to the top of the Paunsaugunt Plateau that opens to vistas of pine, spruce, sage, and pinyon juniper. It is not uncommon to experience wildlife viewing on the high plateau. One can anticipate seeing mule deer, elk, livestock grazing, antelope, prairie dogs, jackrabbits, and several types of raptors such as bald and golden eagles.

The byway drops through the vigorous erosion along the eastern margin of the Paunsaugunt Plateau that has created a sculpted rim that is within the borders of Bryce Canyon National Park. It continues through the towns of Tropic, Cannonville and Henrieville, communities of pioneer origin that are steeped in the rich history of Southern Utah. Each town has its own uniqueness and character, and all rely on this highway for their sustenance.

East of Henrieville, just after crossing the Paria River drainage, Scenic Byway 12 climbs through the eroded badlands of green-gray mudstone and sandstone of the Kaiparowits Formation, referred to as "The Blues". Sparse in vegetation, this stunningly eerie landscape yields some of the richest fossil specimens ever discovered from the Cretaceous Period. The Blues are a part of Grand Staircase-Escalante National Monument. In the distance, is the striking profile of Powell Point, the starkly prominent pink cliff used as a landmark by



-Regional context map of Scenic Byway 12 within south central Utah.



Major John Wesley Powell and his crew on their mapping and surveying expeditions throughout the region.

Continuing through Upper Valley, or Potato Valley as it was called because of the wild potatoes that grew there, Scenic Byway 12 follows the magnificent rock outcroppings of the Straight Cliffs Formation. These terraced and craggy yellow cliffs and ledges were home to many Native American cultures of the last 2000 years. The canyon walls rise above the floor of the Upper Valley drainage and follow Scenic Byway 12 on either side until they reach the Escalante Valley.

Once through the main street of Escalante, the byway heads toward the desert region where access to some of the most scenic backcountry experiences can be found. Just off Scenic Byway 12 is Hole-in-

the-Rock Road, one of the backways that follows the original route of the Mormon pioneer expeditions and today serves as the main access to the spectacular Escalante Canyons. There, in the distance, are the Straight Cliffs of the Kaiparowits Plateau that run parallel to Hole-in-the-Rock Road and reveal layer upon layer of sandstone stratigraphy all the way south to Lake Powell.

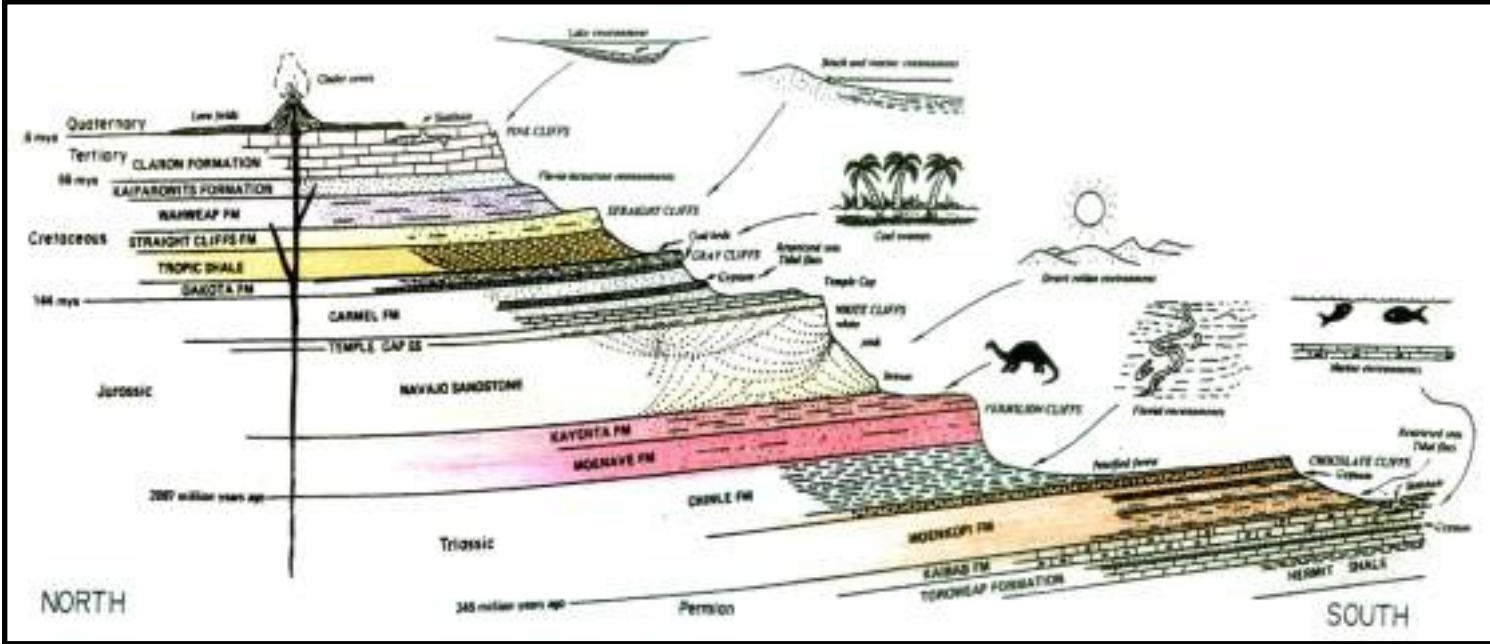
Traversing the Big Flat, Scenic Byway 12 opens into juniper and sage country where one may see the culture of the Old West. Cattlemen drive herds of cattle through this rugged area moving them between their summer and winter ranges. This stunning terrain is also the place from which many canyoneering excursions begin in Grand Staircase Escalante National Monument.

From Head of the Rocks, the slickrock country

is exposed in a dramatic fashion. Here the views stretch across the layers of slickrock all the way to the Henry, Fiftymile and Navajo Mountains, while capturing the labyrinth of canyon rims that twist and turn through the Escalante River drainage. Heading north to the town of Boulder the road crosses the Escalante River, borders the beautiful Calf Creek Recreation Area, and climbs in elevation through the majestic magenta Navajo sandstone to the Hogsback. This part of the highway is on top of a rim with waves of slickrock dropping off dramatically on either side of the pavement. The thrilling experience crossing the Hogsback is enjoyed by travelers as they slow down to negotiate the twisting turns.



-(left to right) Bryce Canyon hoodoos at sunrise; Scenic Byway 12 going east out of Cannonville, Utah; sandstone formations of the Escalante Canyons region; and sunset over the Waterpocket Fold in Capitol Reef National Park.



-Geologic formations of the Grand Staircase.

Bowns Reservoir it becomes clear why Clarence Dutton, the geologist who surveyed with Major John Wesley Powell, referred to this region as “the land of superlatives”.

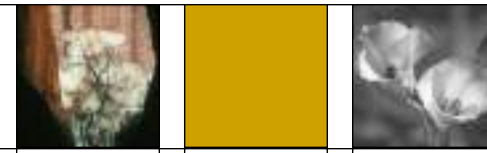
Continuing through aspen and alpine terrain, Scenic Byway 12 curves down the mountain through the town of Grover and onward to the town of Torrey. Just before Scenic Byway 12 reaches the intersection of S. R. 24, the Cockscomb, a jagged rock formation, rises out of the earth like the back of a stilled stegosaurus.

Cresting the hill to the pastoral setting of Boulder, with its rolling green fields and gurgling creeks, Scenic Byway 12 winds into this unique rural town that boasts of being so remote that it was the last town in America to receive its mail by mule. Here in Boulder the traveler can visit the Anasazi State Park Museum to learn of the Anasazi and Fremont cultures and enjoy viewing authentic ruins and artifacts.

Leaving the town of Boulder and climbing up

the eastern flank of Boulder Mountain, which is part of the Aquarius Plateau, Scenic Byway 12 coils upward to an elevation of over 9,000 feet. The mountain itself exceeds 11,000 feet. Several scenic pullouts just off Scenic Byway 12 surprise the traveler with views of Capitol Reef and the Henry Mountains, as well as the Little Rockies beyond. Below, the craggy, jagged edges of purple-red rocks reach upward to form the Waterpocket Fold. Looking down on these rock outcrops and the Lower

This is the point where Scenic Byway 12 ends. But anyone who has experienced this sensational drive knows that it is just as spectacular, only different, when traveling east to west. The ribbon of highway that cuts through this rugged region exposes wonders and memories traveling either direction.



Scenic Byway 12 User Profile

Scenic Byway 12 is driven by travelers of local, regional, national and international origin. Modes of transportation utilized on the byway include, but are not limited to, passenger vehicles, commercial

vehicles, motorcycles, agricultural equipment, bicycles, and horses.

Considering that driving for pleasure has become one of the most popular recreational activities in the U.S., the byway is used for pleasure by many. It is also used by commercial vehicles to transport goods, and by local travelers as a means

to go about daily business. Some travelers drive slowly to relish the sites, while others are focused on traveling efficiently to reach their destinations as quickly as possible. Some of the Scenic Byway 12 travelers are very familiar with the road and others, such as first time visitors, are not.



(left to right) Bryce Canyon National Park; road to Kodachrome State Park; view to “The Cut” east of Cannonville, Utah; Lower Calf Creek Falls trail from above; and view across slickrock from Hogsback.

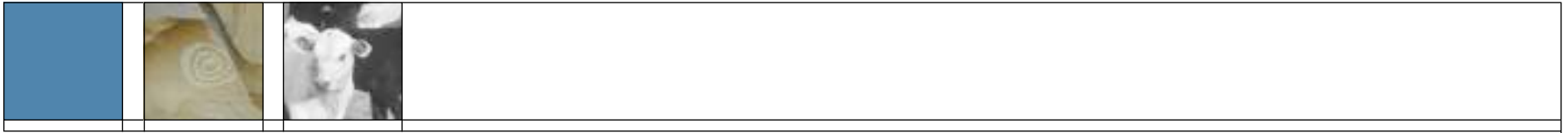
Scenic Byway 12 Partnerships

The Community Partners involved in the planning process for Scenic Byway 12 include a dedicated group who are interested in promoting and preserving the intrinsic qualities of the byway. The Steering Committee is proud of the working relationship that has been built among the follow partners:

Highway 12 neighbors
City of Panguitch
Town of Tropic

Town of Cannonville
Town of Henrieville
City of Escalante
Town of Boulder
Local Chambers of Commerce
Garfield County
Garfield County Travel Council
Wayne County
Wayne County Travel and Economic Development Council
Dixie Interpretive Association
Utah Travel Council
Five County Association of Governments
Utah Department of Transportation

Utah Farm Bureau
Utah State Parks
Dixie National Forest
Bureau of Land Management
Grand Staircase-Escalante National Monument
Bryce Canyon National Park
Capitol Reef National Park
Glen Canyon National Recreation Area
Federal Highways Administration
Panoramaland Resource Conservation & Development
Color Country Resource Conservation & Development



Scenic Byway 12 Group

The Steering Committee is the core management team for Scenic Byway 12. The Steering Committee will act as coordinator and clearinghouse of information. They will:

- *meet regularly to review the status of implementation projects*
- *review goals and strategies on a regular basis*
- *retire completed actions*
- *prepare annual action plans*
- *give guidance to grant applicants for Scenic Byway 12 projects*

A support group for Scenic Byway 12 will be formed. The intent will be to have the core management team carry on the vision of this plan and monitor the recommendations and actions called forth herein, in cooperation with the original partners.



Planning Process and Public Participation

In 2001, the Garfield and Wayne County Commissions were approached by the County Tourism Councils to consider designation of Scenic Byway 12 as an All-American Road. It was determined by the County Commissions of both Wayne and Garfield Counties that locally directed planning is the best way to protect the intrinsic qualities of Scenic Byway 12. After some consideration, the Commissions decided that if a CMP could be developed locally, with local elected officials and citizens participating, and if the CMP would outline strategies to strengthen the local economy as well as protect the intrinsic qualities along the byway, they could support it.

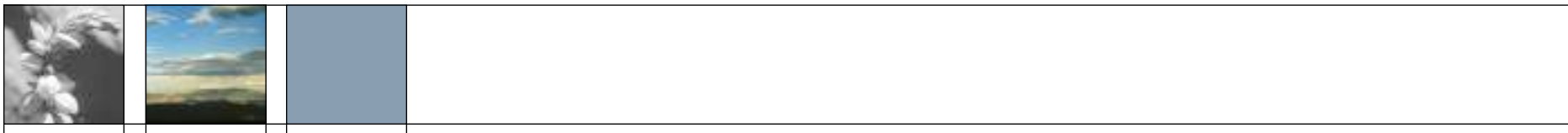
The planning process acknowledges the uniqueness of the resources and is a way to demonstrate the pride that the community has for the byway. And whether or not it is determined that the CMP will be used for application for All-American Road designation, the process that produces it is useful for bringing the various stakeholders along the byway together to collaboratively plan for the future of Scenic Byway 12.

The County Commissions have expressed from the beginning, their desire to see a locally developed corridor management plan for Scenic Byway 12. They retain the right to withdraw from the CMP development or the All-American Road designation process at any time. This is not to indicate their lack of support for a locally developed and managed corridor management plan, but to provide for the termination of the application process for All-American Road designation if necessary. Additionally, should application be made, and designation be awarded, the County Commissions retain the right to de-designate should it be felt at any time in the future that All-American Road status for Scenic Byway 12 is not a benefit to their county.

History of Scenic Byway 12 Planning Events

- **1985** - Completion of Highway 12 from Boulder to Torrey.
- **1988** - Forest Service designated Highway 12 a Scenic Byway through the USFS program.

- **1990** - State of Utah designated Highway 12 a State Scenic Byway.
- **2000** - Utah Department of Transportation initiated planning for its corridor study.
- **1/2001** - Dixie National Forest hosted a workshop on the National Scenic Byways Program.
- **2/2001** - Scenic Byway 12 Steering Committee was formed, and the decision was made to develop a CMP by November 2001.
- **5/2001** - Five County Association of Governments was hired to prepare the CMP and the All-American Road designation application.
- **6/2001** - Color Country Rural Conservation and Development Council became steering committee non-profit agency and financial manager.
- **7/2001** - First round of town meetings were held in five byway communities.
- **10-11/2001** - Second round of town meetings were held in the same byway communities.
- **11/2001** - The CMP was finalized and the application for All-American Road designation was compiled.



-Panel discussion during second town meeting in Boulder, Utah.

Town Meetings

Prior to the Scenic Byway 12 Town Meetings, the Utah Department of Transportation (UDOT) conducted public meetings in the Fall of 2000 to explain the UDOT corridor safety study of Highway 12. Information gathered during those meetings has been incorporated into this plan and is included in Chapter 11 – *Transportation and Safety Plan*.

The first round of Scenic Byway 12 town meetings were conducted in five communities during July 2001 to explain the purpose of the Scenic Byway 12 CMP and to seek public input. A

presentation was given that demonstrated the National Scenic Byways Program, the six intrinsic qualities of Scenic Byway 12, and the purpose of preparing a corridor management plan. The participants took part in a mapping exercise that was designed to gather their input on the highlights and concerns along the byway. The information gathered from those meetings has been incorporated throughout the CMP and provide its guiding outline.

The second round of town meetings were held in October and November 2001 to discuss the CMP draft and determine the level of public support for making application for All-American Road designation. The public was given the opportunity to voice their concerns and support for the corridor management document and the application process. At the conclusion of these meetings, the Wayne and Garfield County Commissioners determined that community support was substantial and they decided to go forward with an application to the Federal Highways Administration for All-American Road status.

Other Public Outreach

Throughout the Scenic Byway 12 corridor management planning process various public relations tools and techniques have been used to

inform the public of byway meetings and updates. Articles were published in local and regional newspapers; public service announcements were aired on local radio; and public notices were posted throughout the byway communities. In addition to these efforts, a Scenic Byway 12 newsletter was mailed to committee members, town meeting participants, and private property owners along the byway.

Ongoing Public Outreach

Public input will continue through the ongoing public meetings sponsored by the county commissions, state and federal agencies and the cities and towns in their normal course of implementation through planning and zoning processes in each jurisdiction. Along with this process, further input will be reviewed with the Association of Governments as the mayors, commissioners, and agency leaders meet throughout the year.

Town meetings will be held annually where citizens can hear the annual report on the CMP and voice their concerns and recommendations. These meetings will be held with the intent of finalizing the annual reports for the county commissions, mayors and agency leaders to adapt at their annual meeting.

An effort to design a Scenic Byway 12 website and link it to pertinent sites is ongoing.



Vision and Goals

Vision

It is envisioned that Scenic Byway 12 will remain a rural byway that serves the region as the main artery between Panguitch and Torrey and beyond. It is desired that its special rural and rugged flavor be maintained. However, Scenic Byway 12 is critical to the prosperity of the towns that it serves,

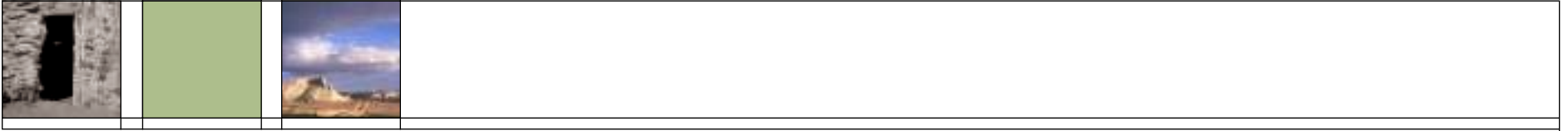
and with the increase in traffic and visitation, maintenance and improvement of the scenic byway will be necessary as issues of safety and enhancement come into play.

The vision is to make improvements, where necessary, but to do so in a way that will be in harmony with the intrinsic qualities. Using carefully designed methods and professional expertise, future

development could address the needs and do so without compromising the byway corridor. A good example of this is the construction of tastefully designed restrooms in an area where they minimally disturb the scenic and natural qualities, but address the needs of all travelers, particularly the physically challenged.



-Scenic Byway 12 between Cannonville and Henrieville, Utah.



Goals

- *Protect and enhance the quality of life and economic vitality of local communities.*
- *Protect and enhance the integrity of the intrinsic qualities within the byway corridor.*
- *Provide a safe driving experience for the diversity of travelers.*
- *Strengthen and maintain coordination among all partners.*
- *Balance the impacts of projected usage with the impacts to local communities.*
- *Enhance community pride and sense of place.*



Corridor Boundary and Major Land Use Map

Scenic Byway 12 passes through publicly owned, state and privately owned lands as it makes its way through Garfield and Wayne Counties, Utah. Approximately 95% of the land is managed by federal land management agencies. These include the National Park Service (Bryce Canyon National Park), the US Forest Service (Dixie National Forest), and the Bureau of Land Management (Grand Staircase-Escalante National Monument). The Escalante and Anasazi State Parks and State Trust Land parcels are located along the byway. Of the 124 miles of Scenic Byway 12, approximately 112.5 miles are within Garfield County, the remaining 11.5 miles are within Wayne County. Scenic Byway 12 is also the primary route leading to the communities of Tropic, Cannonville, Henrieville, Escalante, and Boulder.

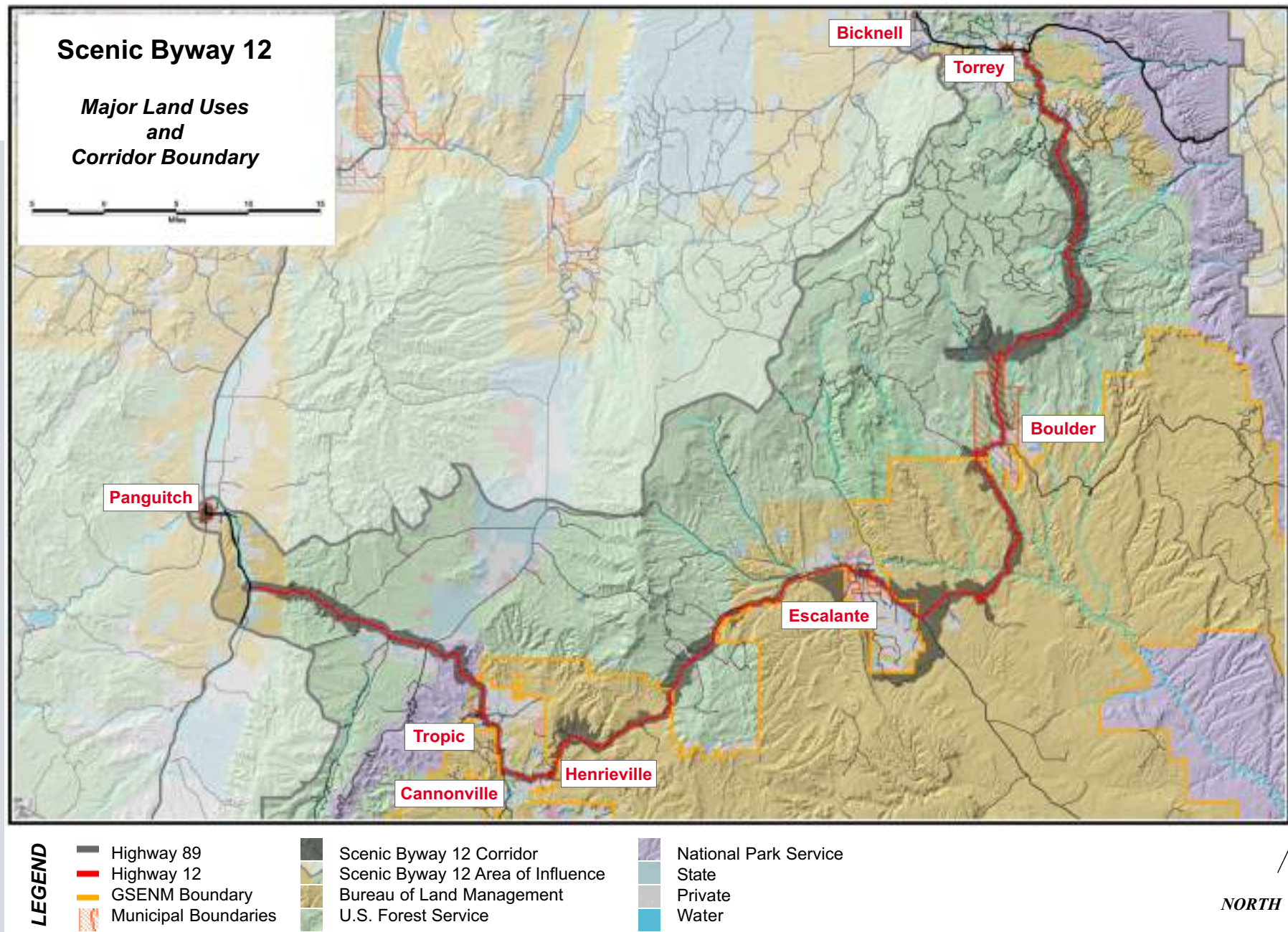
Scenic Byway 12 Corridor

The Scenic Byway 12 corridor, which is highlighted on the following map, is defined according to existing County and Community General Plans, as well as agency management plans.

The following is a breakdown of how the corridor was delineated:

- *Incorporated towns or cities properties - established commercial zones.*
- *Unincorporated county properties - commercially zoned parcels or highway right-of-way.*
- *Private properties not commercially zoned - highway right-of-way.*
- *BLM / Grand Staircase-Escalante National Monument lands - Monument Frontcountry Management Zone (focus area for visitor usage).*
- *USFS / Dixie National Forest lands - 'Roaded Natural' zones (most accessible and focus area for visitor usage).*
- *NPS / Bryce Canyon National Park lands - "Natural Area Sub-Zones" (are protected against development).*

The above-mentioned areas were chosen for inclusion within the corridor boundary because Scenic Byway 12 access is a primary factor in how adjacent lands are used and managed. To minimize local concerns about private property rights and to incorporate existing land management agency decisions, the boundary is based upon current zoning and management directives. The corridor boundary will not be adjusted beyond the areas highlighted on the adjacent map without approval of the Scenic Byway 12 Steering Committee and public involvement.





Scenic Byway 12 Area of Influence

The spectacular nature of Scenic Byway 12 is not based solely upon intrinsic qualities within the corridor boundary. Its uniqueness is also based upon the distant scenic views, the access it provides to

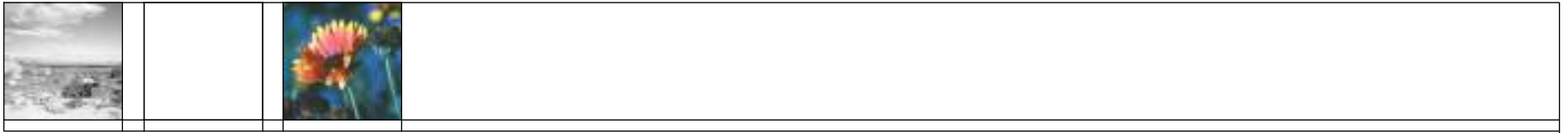
recreational resources not immediately adjacent to the highway, as well as the cultural and historic resources of the local communities that are outside the commercially zoned properties

The delineation of the *Area of Influence* is based upon input from the public meetings where it was noted that many intrinsic qualities in the region were

located not just along the byway, but also in areas primarily accessed from the byway. Examples of this include Bryce Canyon National Park and Escalante Petrified Forest State Park where the entrances are less than three miles off the byway. The shoulder communities located just off the byway also expressed an interest in being involved in the



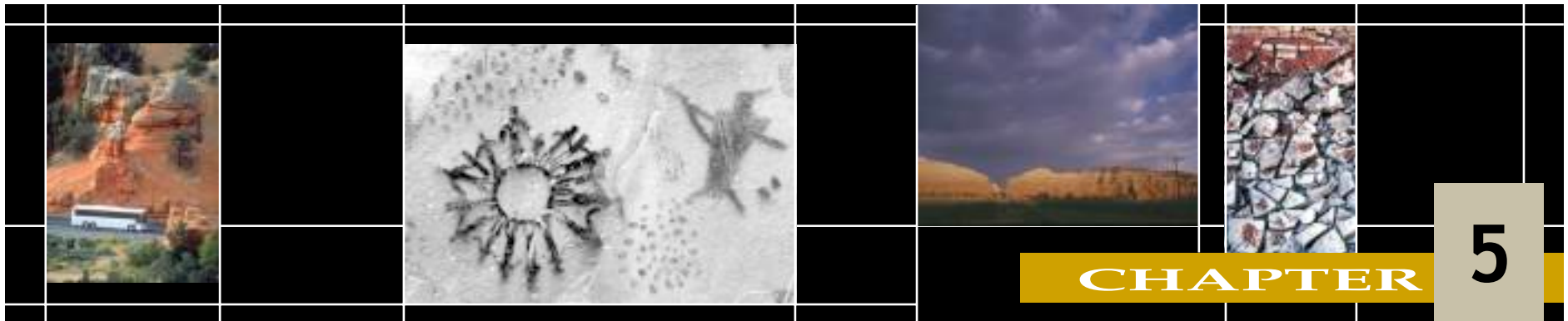
-(left to right) Bryce Canyon National Park; Promise Rock between Cannonville and Henrieville, Utah; Escalante Canyons; and stream and slickrock near Boulder, Utah.



planning process. In order to accommodate these requests and include public input, the *Area of Influence* specifically includes the following:

- *The communities of Panguitch, Torrey, and Bicknell*
- *Bryce Canyon and Capitol Reef National Parks*
- *Grand Staircase-Escalante National Monument*
- *Portions of the Paunsaugunt and Aquarius Plateaus that are within the Dixie National Forest and easily accessed from the byway*

The *Area of Influence* is also highlighted on the adjacent map only to illustrate the expansive influence this highway has on a traveler's ability to enjoy this region. But for the sake of clarity, this CMP does not provide guidance or planning strategies for properties within the *Area of Influence*.



Archeological Resources

Existing Archeological Resources

Archeological quality involves those characteristics of the scenic byways corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried and interpreted. The scenic byway corridor's archeological interest, as identified through ruins, artifacts, structural remains and other physical evidence, have scientific significance that educate the viewer and stir an appreciation of the past. (FHWA Policy 5.18.95)

The sequence of human populations who lived along what is now the Scenic Byway 12 corridor reaches back as far as 12,000 years ago. Numerous archeological resource sites are found in this region of Utah.

Petroglyphs, pictographs, granaries, pit houses and dwellings serve as some of the reminders of these prehistoric people. The traveler through the Scenic Byway 12 corridor may experience the excitement of discovery while stepping back in time

and learning about these unique cultures.

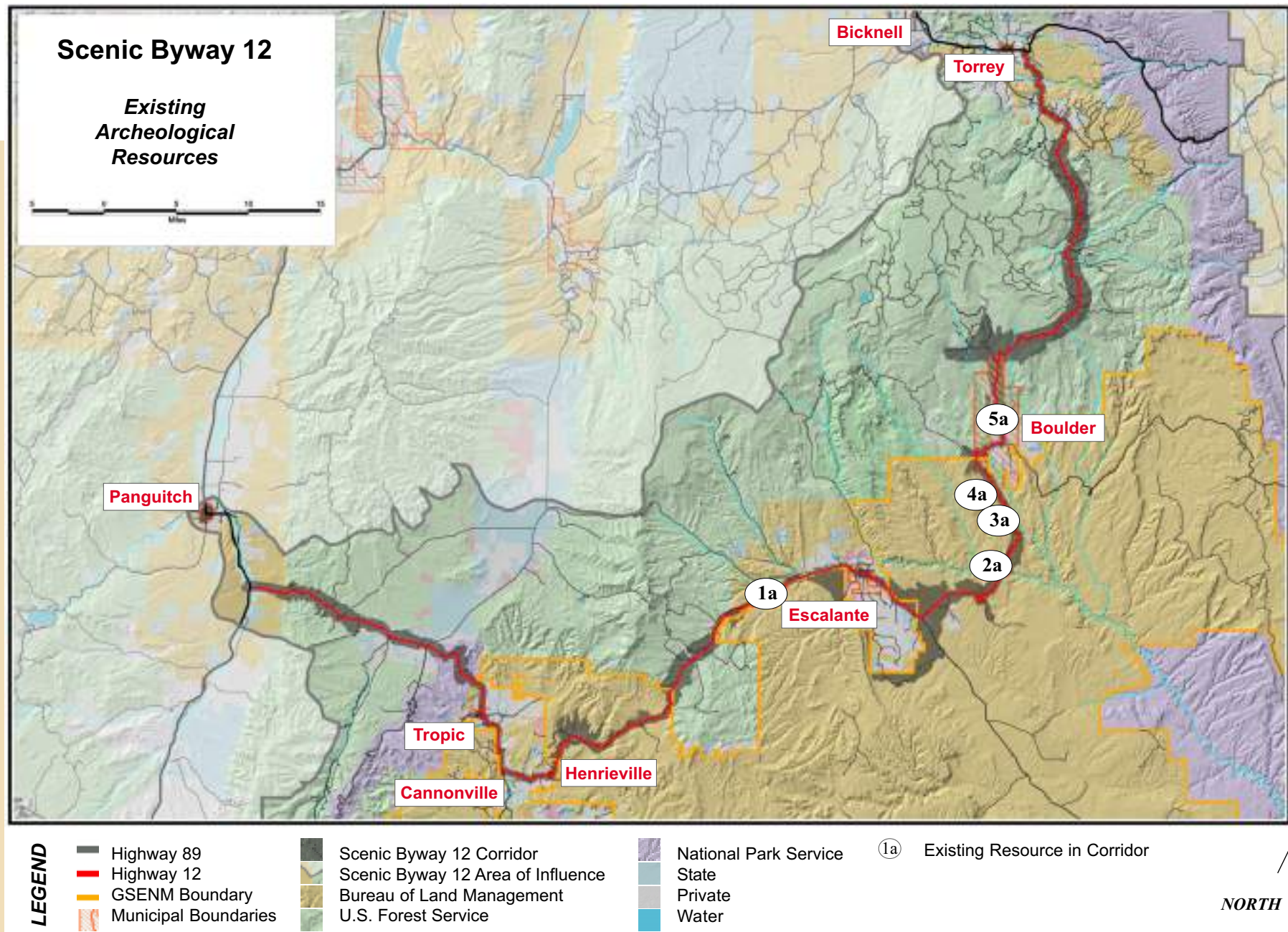
Various cultures have passed through this region: the big game hunters known as the Paleo-Indians (11,500-8,000 B.C.), the Archaic hunter-gatherers (8,000-600 B.C.), and the agricultural Fremont and Anasazi Indian cultures (200-1300 A.D.). Today modern day tribes include the Ute, Paiute, Hopi and Navajo.

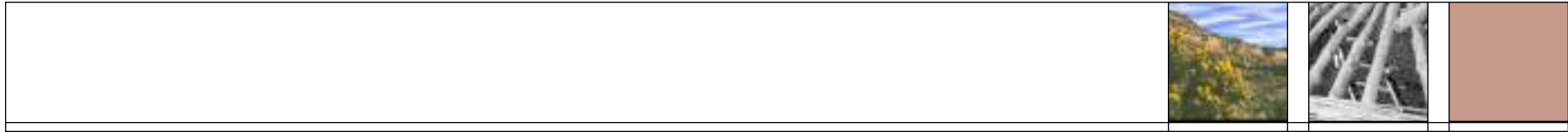
The most visible evidence of prehistoric activity existing within the corridor was left by the Anasazi and Fremont cultures. These were two distinct cultures that existed at the same time in the region, from approximately 200-1300 A.D. The Fremont Indians utilized caves and built clusters of pit houses, while the Anasazi Indians built masonry structures from sandstone slabs that were held together by clay mortar and mud. Both cultures were agricultural people who cultivated corn, beans and squash, built irrigation systems, crafted pottery, and excelled at basket weaving. And both cultures expressed themselves with rock art which, while it cannot be strictly interpreted, can be seen and enjoyed by the corridor traveler.

These cultures are interpreted extensively at the Anasazi State Park Museum in Boulder. Here a



-Anasazi structures at the Anasazi State Park Museum in Boulder, Utah.





traveler can venture through time and learn about the Coombs site and experience authentic ruins of the Anasazi culture.

There is always a concern that highlighting

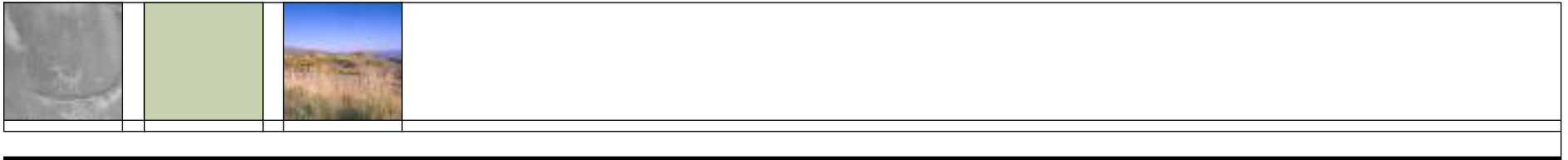
archeological resources may invite intentional or even unintentional damage. The sites, often considered sacred, are noted below and are routinely visited by the public and are highlighted in

guidebooks. They are also on lands managed by either federal or state agencies that monitor their use.



-Rock art located within the Scenic Byway 12 corridor.

Existing Archeological Resources			
#	Resource	Location	Agency
1a	Fremont Granary	Mile marker 52	GSENM
2a	Escalante River Sites	Highway 12 - Escalante River Junction	GSENM
3a	Calf Creek Granary	Lower Calf Creek Falls Trail	GSENM
4a	Friendship Panel	Lower Calf Creek Falls Trail	GSENM
5a	Coombs Site	Anasazi State Park	DNR

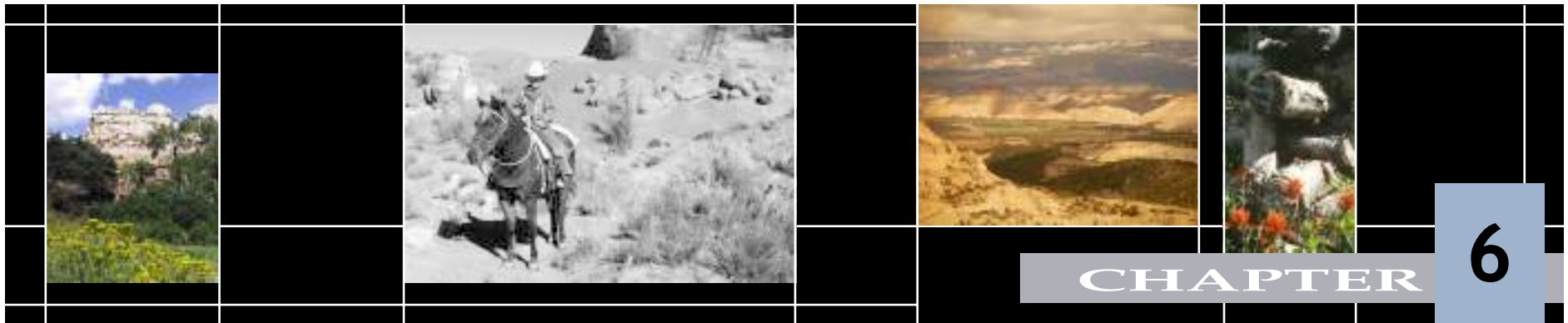


Strategies for Archeological Resources

- A. Ensure that an organization or agency maintains archeological sites that the public have been invited to visit.
- B. Utilize interpretive facilities and materials to educate the public about archeological sites and their preservation.

Proposed Actions for Archeological Resources

- A. Develop strategic plan for archeological resources in the corridor for the protection of the promoted sites.
- B. Educate the public about the archeological sites as a unique resource that may be considered sacred.



Cultural Resources

Existing Cultural Resources

Cultural quality is evidence and expressions of the customs or traditions of a distinct group of people. Cultural features including, but not limited to, crafts, music, dance, rituals, festivals, speech, food, special events, and vernacular architecture are currently practiced. The cultural qualities of the corridor could highlight one or more significant communities and/or ethnic traditions. (FHWA Policy 5.18.95)

The cultural resources along the Scenic Byway 12 corridor manifest themselves in events and traditions of the small rural towns that are found along the route. The people in Garfield and Wayne Counties are proud of their heritage and feel that there is a special and unique story to be told in every town. They express these traditions in annual events, activities and festivals that celebrate each community's uniqueness.

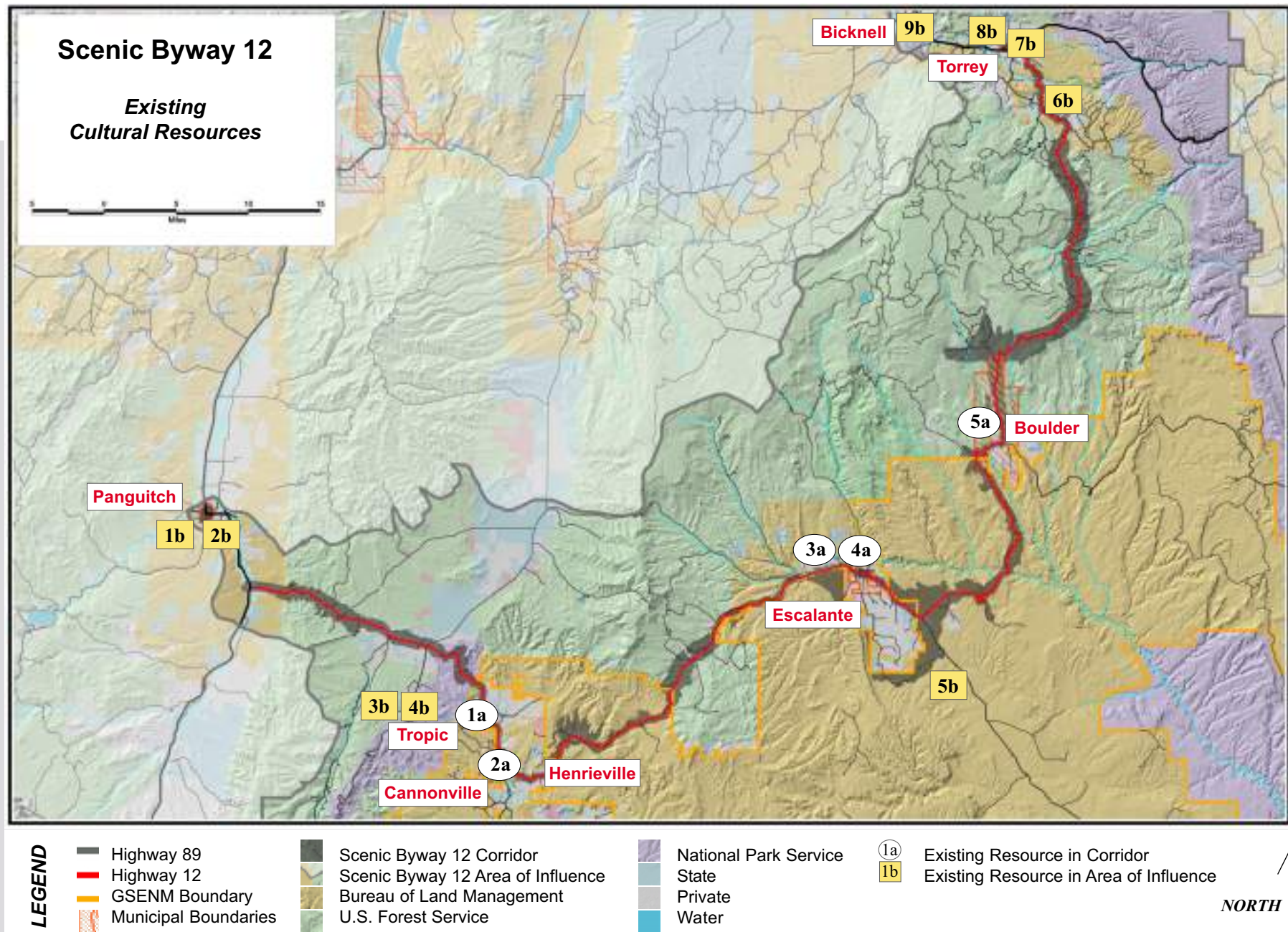
There are many annual events in Garfield and Wayne Counties. For example: the Panguitch Quiltwalk that delights local neighbors and visitors with colorful displays, throughout the town, of home

made quilts by the local quilters; the Cannonville Old Time Fiddlers & Bear Festival where musicians gather to play country, western, pioneer and old time music; The Deer Hunter's Ball in Tropic, a dance that celebrates the Fall hunting season; in Escalante, the Potato Harvest Festival and Escalante Festival where the heritage and local fare, handiwork, and produce of the town are highlighted; and the Torrey Apple Days in Wayne County when the apple harvest is celebrated with a town dance and dinner. These events are just an example of some of the regional cultural traditions. All of the cultural events in the area encourage a celebration and sense of pride in the heritage of the people and the region.

A cultural tradition that is not an event, but is valued just as highly, is the tradition of agricultural open space. The vast stretches of open areas where the land has been cultivated to grow hay or alfalfa, or graze horses, cows, or sheep are treasured in this rural region. The agricultural open space is one of the qualities that is unique in the region and is evident all along the Scenic Byway 12 corridor.

One of the cultural traditions that runs a risk of being lost forever is the Spring and Fall cattle drives. The cattle have been driven from the ranges on the

high plateaus, to the desert allotments in the lower elevations, for years. The method of transport has traditionally been on horseback with the wranglers carefully guiding the animals through the corridor. With the increase of traffic on Scenic Byway 12, as well as tourist fascination, there is a need to address the safety issues of continuing this tradition. Many ranchers have switched to the method of transporting the cattle from the higher to lower elevations in trucks or other vehicles. This method has a negative economic impact on the cattlemen and threatens to lose forever the cowboy tradition that makes the region culturally rich in its heritage. There is a strong sentiment locally to preserve this tradition as well as the agricultural open space that gives the feeling of vastness that makes the corridor unique.





Existing Cultural Resources Within Corridor

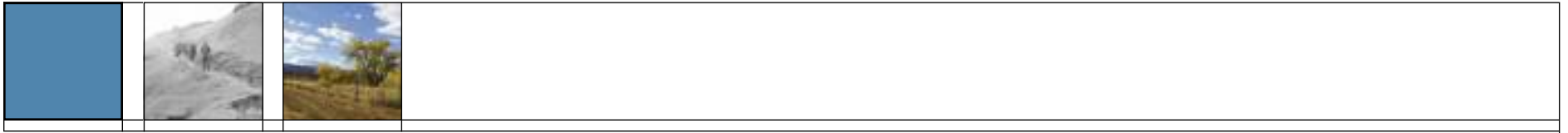
#	Resource	Location
1a	Deer Hunter's Ball	Tropic/Panguitch
2a	Cannonville Old Time Fiddlers & Bear Festival	Cannonville
3a	Escalante Festival	Escalante
4a	Potato Festival/Harvest Festival	Escalante
5a	Boulder Town 4 th of July	Boulder
	Agricultural Open Space	Region-wide
	Art Galleries	Region-wide
	County Fairs and Rodeos	Region-wide
	July 24 th Pioneer Day	Region wide
	Logging	Region-wide
	Horse Races	Region-wide
	Spring and Fall Cattle Drives	Region-wide
	Trail Rides/Dutch Oven Dinners	Region-wide

Existing Cultural Resources Within Area of Influence

#	Resource	Location
1b	Panguitch Quilt Walk	Panguitch
2b	Paunsaugunt Wildlife Museum	Panguitch
3b	Bryce Canyon Winter Festival	Bryce
4b	Bryce Canyon Rim Run	Bryce
5b	Hole-In-The-Rock Trek	Escalante
6b	Hale Theatre	Grover
7b	Entrata Institute Presentations	Torrey
8b	Torrey Apple Days	Torrey
9b	Bicknell International Film Festival	Bicknell



-Spring cattle drive on Scenic Byway 12
west of Escalante, Utah.



Strategies for Cultural Resources

- A. Provide a forum for local governments, businesses, and state and federal agencies to work together regarding commercial enterprise.
- B. Do not restrict traffic use (i.e. log trucks, cattle trucks, bicycles or agricultural equipment, etc.) along Scenic Byway 12, but continue to adhere to the UDOT laws and regulations that are already in place.
- C. Coordinate with the counties and agricultural preservation organizations to encourage the preservation of open space.
- D. Accommodate growth and development in a manner sensitive to existing cultural concerns.
- E. Scenic Byway 12 Committee supports the following goals that are in concert with the local county general plans:
 - *Promote a regular interface between representatives from agriculture and tourism through scheduling training seminars with Utah State University and with the Utah Department of Agriculture.*
 - *Through agricultural diversification, also*

known as “agritainment”, promote opportunities for tourism and tourist events/attractions.

- *Encourage grant and foundation research towards the establishment of museums, art galleries and Main Street projects in the byway communities.*
- F. Encourage the promotion and preservation of heritage activities that highlight local traditions, handiwork, arts and crafts.
- G. Encourage local communities to become active participants in the Utah State Pioneer Communities.

Proposed Actions for Cultural Resources

- A. Continue to provide a comprehensive list of cultural activities to be included in marketing packets.
- B. Partner with the Heritage Highway 89 Alliance - Boulder Loop.



-Barn located just off Scenic Byway 12 in Boulder, Utah.



Historic Resources

Existing Historic Resources

Historic quality encompasses legacies of the part that are distinctly associated with physical elements of the landscape, whether natural or man-made. They are usually historically significant enough to educate the viewer and stir an appreciation of the past. The historic elements reflect the actions of people and may include buildings, settlement patterns, and examples of human activity. Historic features can be inventoried, mapped and interpreted. They possess integrity of location, setting, material, workmanship, feeling and association. (FHWA Policy 5.18.95)

Although Native Americans lived in the area for years, the beginning of the modern historic period in Southern Utah is typically noted to be approximately 1540. It was at that time the Spanish explored the region and claimed it for Spain.

In 1776 a group of Spanish explorers lead by two Franciscan priests, Francisco Atanasio Dominguez and Silvestre Velez de Escalante traveled into Utah in search of an overland route to

the Pacific Ocean. These Spanish explorers actually never made it as far as Garfield or Wayne Counties, but their influence is felt through place names, such as the town of Escalante.

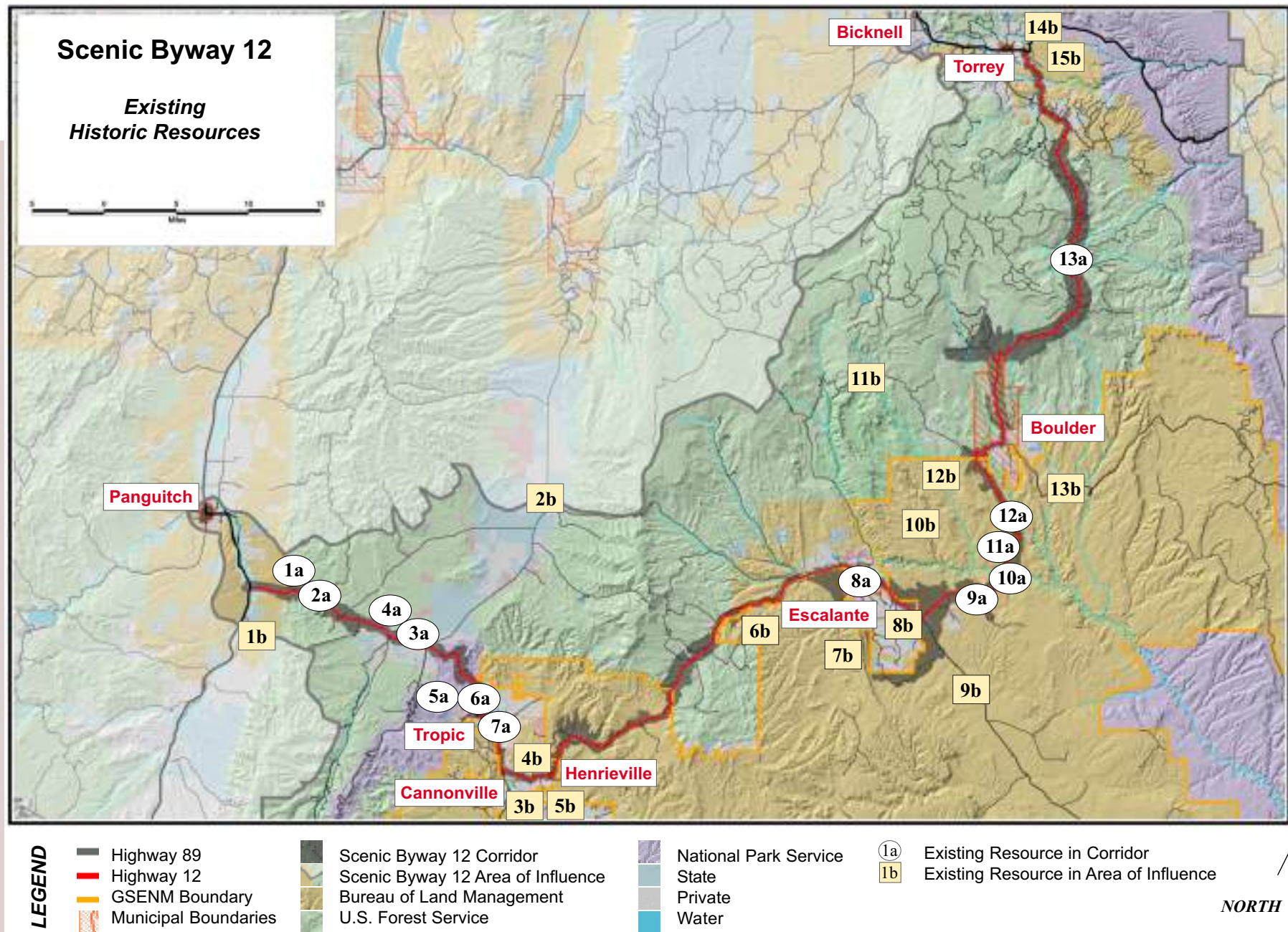
Major John Wesley Powell led two expeditions into the region in 1869. He sent Almon H. Thompson, his brother-in-law, to explore and map the tributaries that flow from the Colorado River again in 1871. Thompson, who actually mistakenly discovered the Escalante River when he mistook it for the Dirty Devil River, continued his scientific explorations until 1877.

The Mormon pioneers entered the region as early as 1864. Panguitch was settled once and then abandoned because of Indian raids and resettled in 1871. Panguitch was known throughout the region for its cold weather. However, the settlers came and farmed and ranched and built a lovely town graced with handsome brick pioneer homes.

Tropic, the next town along Highway 12 was almost named Hansen, but instead was called Tropic because of the mild climate. This town was settled in 1891. In May of that same year the water from the east fork of the Sevier River was diverted over the Paunsaugunt Plateau and channeled into the Tropic Ditch. This was the first time that water was



-Historic pioneer brick home in Panguitch, Utah.





Existing Historic Resources *Within Corridor*

#	Resource	Location
1a	Butch Cassidy Draw	Red Canyon
2a	Red Canyon Tunnels (CCC)	Red Canyon
3a	Bryce Canyon Airport and Hangar	Bryce Canyon
4a	1947 Bryce Canyon Crash Site	Paunsaungunt Plateau
5a	Mossy Caves	Bryce Canyon
6a	Tropic Ditch	Bryce Canyon
7a	Ebenazar Bryce Homestead	Tropic
8a	Everett Ruess Story	Escalante
9a	Cream Cellar Route	Head of the Rocks
10a	Boynton - Phipps Legend	Escalante River
11a	Calf Creek	Escalante – Boulder
12a	Hogsback	Escalante – Boulder
13a	Wildcat Guard Station	Boulder Mountain
	CCC Projects	Region-wide
	Pioneer Homes, Barns, Outbuildings	Region-wide
	Ripgut Fences, Old Juniper Pole Fences, Corrals	Region-wide
	Settlement Patterns	Region-wide
	Water Systems (Canals, Ditches, etc.)	Region-wide

diverted from the Great Basin to the Colorado River. Tropic had a thriving enterprise of plum and apple orchards because of its plentiful water and mild temperatures.

Cannonville, located in the Upper Paria Valley serves as the gateway to the intriguing Kodachrome State Park, a wonderland of red sandstone.

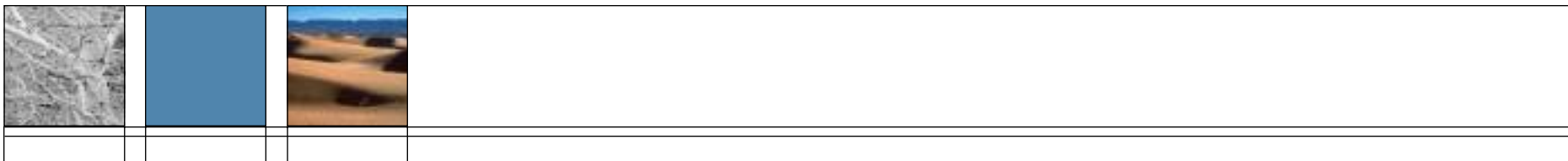
Cannonville residents first called their town Clifton because of the views of the Pink Cliffs. Ebenezer Bryce first settled in Cannonville, but became frustrated with the insufficient water supply. He and a partner moved to Henderson Valley, several miles upstream and built a canal seven miles long that ended in the amphitheater of red rock spires



-Post office in Henrieville, Utah.

that the local folk called Bryce's Canyon. Legend has it that when asked his opinion of the spectacular scenery of the future national park, Bryce claimed, "It's a hell of a place to lose a cow".

The town of Henrieville received families from the abandoned towns of Clifton and Wooden Shoe. It is a small town of homes, with no real commercial district. Residents are proud of the Henrieville Old School House / Community Center, a multi-use facility, which was built by the town folk in 1881. Henrieville, surrounded by vanilla and white cliffs and spires, can boast of unusual scenery that appears to radiate the sunlight in the sandstone. In many ways Henrieville, of all the towns, has changed the least from its original pioneer heritage.



Existing Historic Resources *Within Area of Influence*

#	Resource	Location
1b	Hillsdale	South of Junction 89 & 12
2b	Widstoe	John's Valley north of Bryce
3b	Peter's Crack	Henrieville
4b	Promise Rock	Henrieville
5b	Georgetown	South of Cannonville
6b	Upper Valley Homesteads	Escalante
7b	Proctor	South of Escalante
8b	Escalante Airport	Escalante
9b	Hole in the Rock	Escalante
10b	Boulder Mail Trail	Escalante – Boulder
11b	Hell's Backbone Road	Escalante – Boulder
12b	Old Boulder Road	Escalante – Boulder
13b	Burr Trail	Boulder
14b	Torrey Canal	Torrey
15b	DUP Schoolhouse	Torrey

Escalante, also known as Potato Valley, was settled in 1876 and lies approximately in the center of Garfield County on the south side of the Escalante River. Escalante was built, like so many Utah pioneer towns, on the settlement pattern grid system. Following the “Zion plat” plan, the blocks were sectioned into four one and one-fourth acre lots. Every lot had space for a home, usually log, a barn and a garden. Each family also had a 20 acre parcel

used for farm land outside of the town proper. The pioneer homes and barns are still seen in town today.

In 1879 stockmen brought their herds to the virgin ranges of Boulder Mountain. The town of Boulder has been noted as one of the most isolated towns in all of Utah. There the cattlemen let their stock take advantage of the lush grasses and flowing streams of Boulder Mountain. Even today the 200 some citizens are outnumbered by the horses and

cattle. Hundreds of years ago the Anasazi Indians thrived on the very land that is now known as Boulder town.

Grover, settled in 1887, is on the northern slope of Boulder Mountain and lies between Fish Creek and Carcass Creek. By 1894 Grover was receiving mail and the residents no longer had to travel to Teasdale to pick up letters and packages.

The town of Torrey is surrounded by Thousand Lake Mountain to the north, Boulder Mountain and the Fremont River to the south, and the stunning Waterpocket Fold to the east. It was officially surveyed in 1896 and still has irrigation ditches flowing in the center of town, flanked by a canopy of cottonwood trees. This picturesque town is the gateway to Capitol Reef National Park and serves as a picturesque village and tourist playground today.



*-Pastoral scene along Scenic Byway 12
in Boulder, Utah.*



-Rustic barn in Escalante, Utah.

Garfield County, which Scenic Byway 12 traverses, covers some of the most rugged landscape in the United States. This remote region has been noted by many as the “last” frontier. The last river to be discovered in the continental United States was the Escalante River. The last place in the U.S. to deliver mail by mules or horseback was the stretch between Boulder and Escalante. The last place to be explored, mapped and actually traversed was the rugged canyons of the Escalante. And the road between Boulder and Torrey was paved only as recently as 1985.

Another highlight of this rich history is the creation of the Civilian Conservation Corps (CCC) in 1933, which was established under President Roosevelt’s New Deal Administration. The CCC was formed to put young men, from needy families, to work during the Great Depression. The CCC improved campgrounds, worked on water and soil conservation projects and most notably built the roads that we use today. The CCC engineered the Hell’s Backbone Road and bridge as well as the byway from Head of the Rocks to the outer limits of Boulder town.

The Works Progress Administration (WPA) was established in 1935 and it also provided work for the needy. WPA projects included long-range value projects such as highways, streets, bridges, and parks. The Southern Utah region greatly benefited from the work of the CCC and the WPA.

Throughout the Scenic Byway 12 corridor one can experience evidence of the rich history and have the accessibility of areas of influence that lead from the byway proper. There are museums and authentic pioneer structures that house visitor centers to aid the traveler in the discovery.



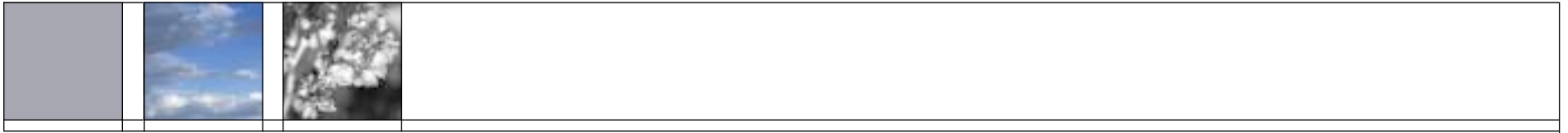
- Mule team that transported mail between Boulder and Escalante, Utah.



- CCC work once located near Escalante, Utah.



- Historic ranching cabin once located south of Escalante, Utah.



Strategies for Historic Resources

- A. Work with counties and towns along the scenic byway to develop planning and zoning to accommodate growth and development in a manner sensitive to the existing historic concerns.
- B. Work with counties and towns to develop inventory and preservation plan for the historic structures in the corridor, such as pioneer houses and outbuildings, historic airport hangars, and frontier fences.
- C. Support fund raising efforts for restoration and renovation of important historic structures along byway (consider seeking National or State Historic Register listing, by district or structure).
- D. Continue to develop interpretive materials that provide comprehensive historic highlights of the corridor.
- E. Work with towns and individuals to identify and develop sites that highlight historic events along the corridor.

Proposed Action for Historic Resources

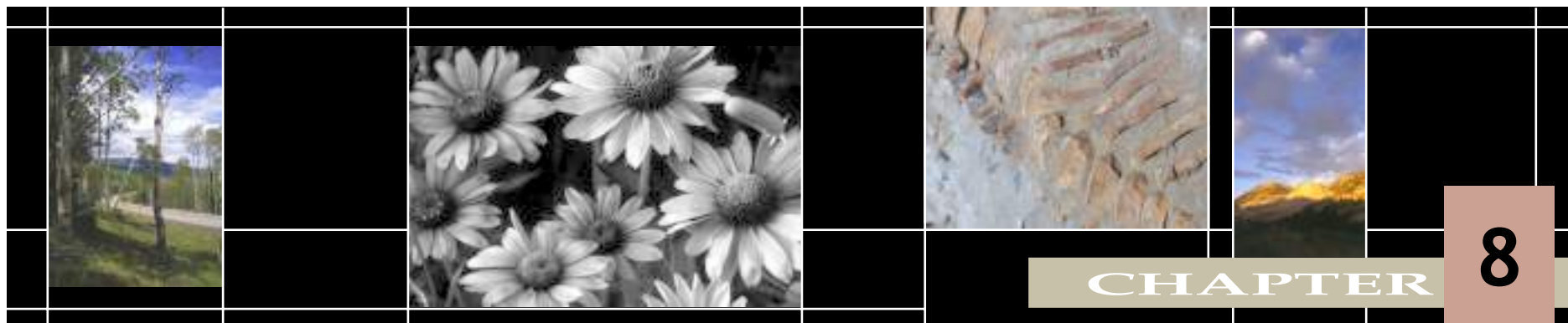
- A. Support the planning of The Last Wagon Museum, Escalante.

(Factual historic material in this section came primarily from the following sources:

Murphy, Miriam B. *A History Of Wayne County*. Salt Lake City, Utah. Utah State Historical Society. 1999.

Newell, Linda King. *A History Of Garfield County*. Salt Lake City, Utah. Utah State Historical Society. 1998.

Roundy, Jerry C. *“Advised Them To Call The Place Escalante”*. Springville, Utah. Art City Publishing. 2000.)



Natural Resources

Existing Natural Resources

Natural quality applies to those features of the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landforms, water bodies, vegetation, and wildlife. There may be evidence of human activity but the natural features reveal minimal disturbances. (FHWA Policy 5.18.95)

The natural intrinsic qualities along Scenic Byway 12 are found in a relatively undisturbed state. They often predate the human populations and include geological formations and paleontological phenomenon, vegetation and wildlife. These natural qualities abound along the byway corridor.

Because the road passes through at least five different ecosystems, the flora and fauna is quite diverse. Factors such as elevations, temperature, available moisture, soil makeup and slope direction effect plant distribution. There may be sage and rabbit brush at the lower elevations that yield to yucca and ponderosa pine and eventually to aspen

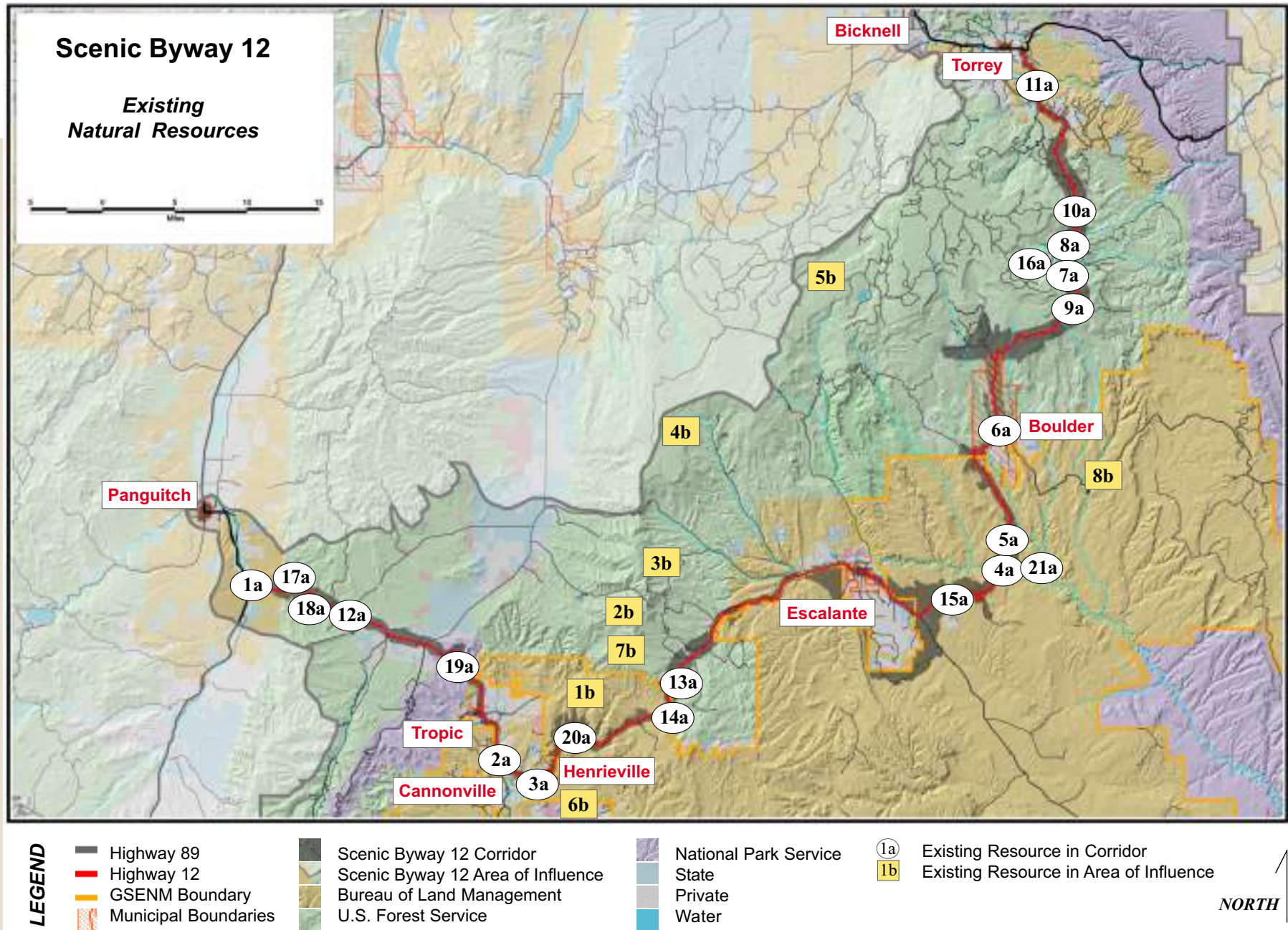
stands and other conifers. Wildlife is plentiful as well. It is not unusual to see antelope, elk and occasionally bear at the higher elevations. Mule deer, coyote, bobcats, rabbits and beaver can also be seen while experiencing the byway.

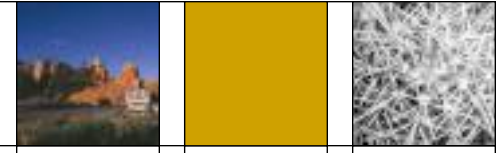
Geologically, Scenic Byway 12 is a journey through time. Erosion has played a part in exposing the geologic secrets throughout the corridor.

At the beginning of Scenic Byway 12 as it travels from west to east, the road begins in the colorful Jurassic rocks. It soon yields to the drab-colored sandstone and siltstone of the Cretaceous strata. Near Bryce Canyon the spectacular tertiary rocks, mostly of the Claron Formation, are also known as the Pink Cliffs. It winds its way through the Kaiparowits Formation, the Wahweap Formation, the Straight Cliffs Formation, through Tropic shale all the way to the Entrada Formation. It cuts even deeper and includes the Carmel Formation, the Navajo sandstone, the Kayenta, Chinle and Moenkopi Formations. It truly becomes a living laboratory for those interested in geologic history. For others it is simply a display of color and sculpture.



-Sandstone formations at Devils Garden south of Escalante, Utah.





Existing Natural Resources *Within Corridor*

#	Resource	#	Resource
Water Systems		Geology and Paleontology	
1a	Sevier River	17a	Sevier Fault
2a	Paria River	18a	Red Canyon
3a	Henrieville Creek	19a	Bryce Canyon
4a	Escalante River	20a	The Blues
5a	Calf Creek	21a	Escalante Canyons
6a	Boulder Creek		Straight Cliff Formation
7a	Pleasant Creek		Navajo Sandstone Formation
8a	Wildcat Creek		Kayenta Formation
9a	Oak Creek		Wingate Formation
10a	Chokecherry Creek		Claron Formation
11a	Fremont River		Dinosaur and other fossils
Land Areas		Wildlife	
12a	Paunsaugunt Plateau		Pronghorn
13a	Upper Valley		Deer herds
14a	Liston Flat		Elk herds
15a	Big Flat		Bald eagle
16a	Boulder Mountain		Golden eagle
General			Sage grouse
	Clean air		Wild turkey
	Night time skies		Mountain lion
	Quiet		Utah prairie dog
	Solitude		Black bear
	Clean air		Brown bear



Existing Natural Resources *Within Area of Influence*

#	Resource
Land Areas	
1b	Coal Bench
2b	Table Cliff Plateau
3b	Escalante Mountain
4b	Barney Top
5b	Aquarius Plateau
Geology and Paleontology	
6b	Kodachrome Basin
7b	Powell Point
8b	Long Canyon

Strategies for Natural Resources

- A. Encourage communities to adopt ordinances through planning and zoning that ensure protection of the night-time skies.
- B. Develop sites and interpretive materials that highlight the natural resources along the corridor.
- C. Cooperate with all agencies on long range planning.



-GSENM Paleontologist at a dinosaur excavation south of Cannonville, Utah.



Recreational Resources

Existing Recreational Resources

Recreation quality involves outdoor recreational activities directly associated with and dependent upon the natural and cultural elements of the corridor's landscape. The recreational activities provide opportunities for active and passive recreational experiences. They include but are not limited to, skiing, rafting, boating, fishing, and hiking. Driving the road itself may qualify as a pleasurable recreational experience. The recreational activities may be seasonal, but the quality and importance of the recreational activities as seasonal operations must be recognized. (FHWA 5.18.95)

Recreational opportunities abound all along the Scenic Byway 12 corridor. In fact, there are so many activities that travelers often exclaim that it would take a lifetime to experience the entire region. From hiking, camping, and backpacking to horseback riding, fishing, hunting, off-highway vehicle (OHV), motorcycle riding, road and mountain biking, cross-country skiing, rock climbing and photography to sheer driving for pleasure, the byway corridor offers

a multitude of memory-making moments.

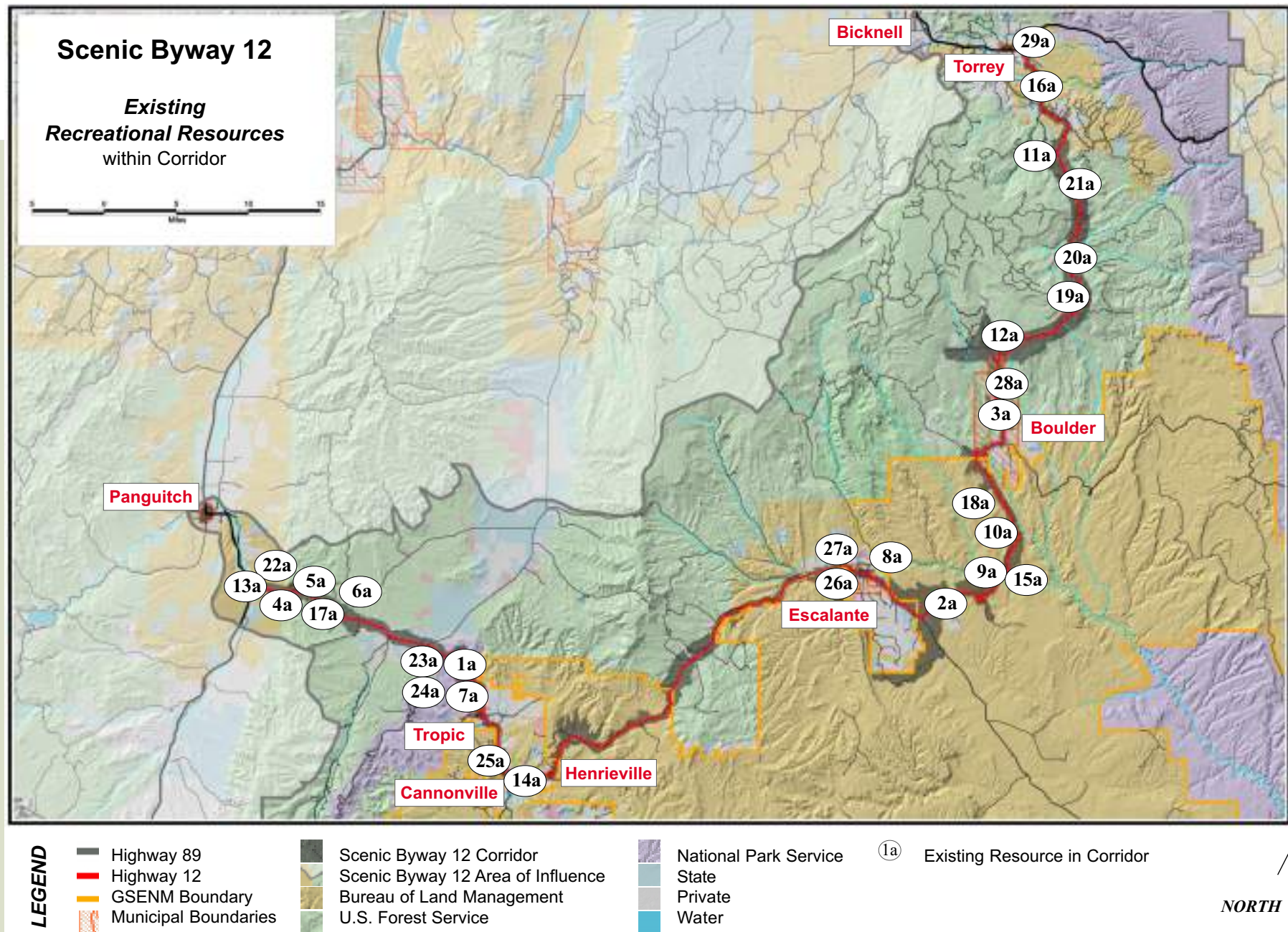
The type of activity to pursue is often determined by the amount of time one has in the area, as well as one's physical ability. The recreational experiences are typically the most satisfactory when the recreationalist consults a local visitor center for maps and current weather and road conditions. The very nature of this remote and rugged region that Scenic Byway 12 traverses is awesome because of its wildness. Travelers should explore the region with clear directions, current on-the-ground information, maps, drinking water, and an understanding that to get from one point to another usually takes longer than one may estimate.

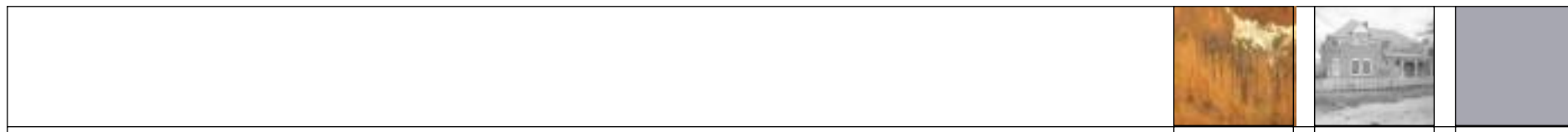
The chart below attempts to capture the recreational resources and opportunities that are



-Fly fisherman enjoying a local lake.

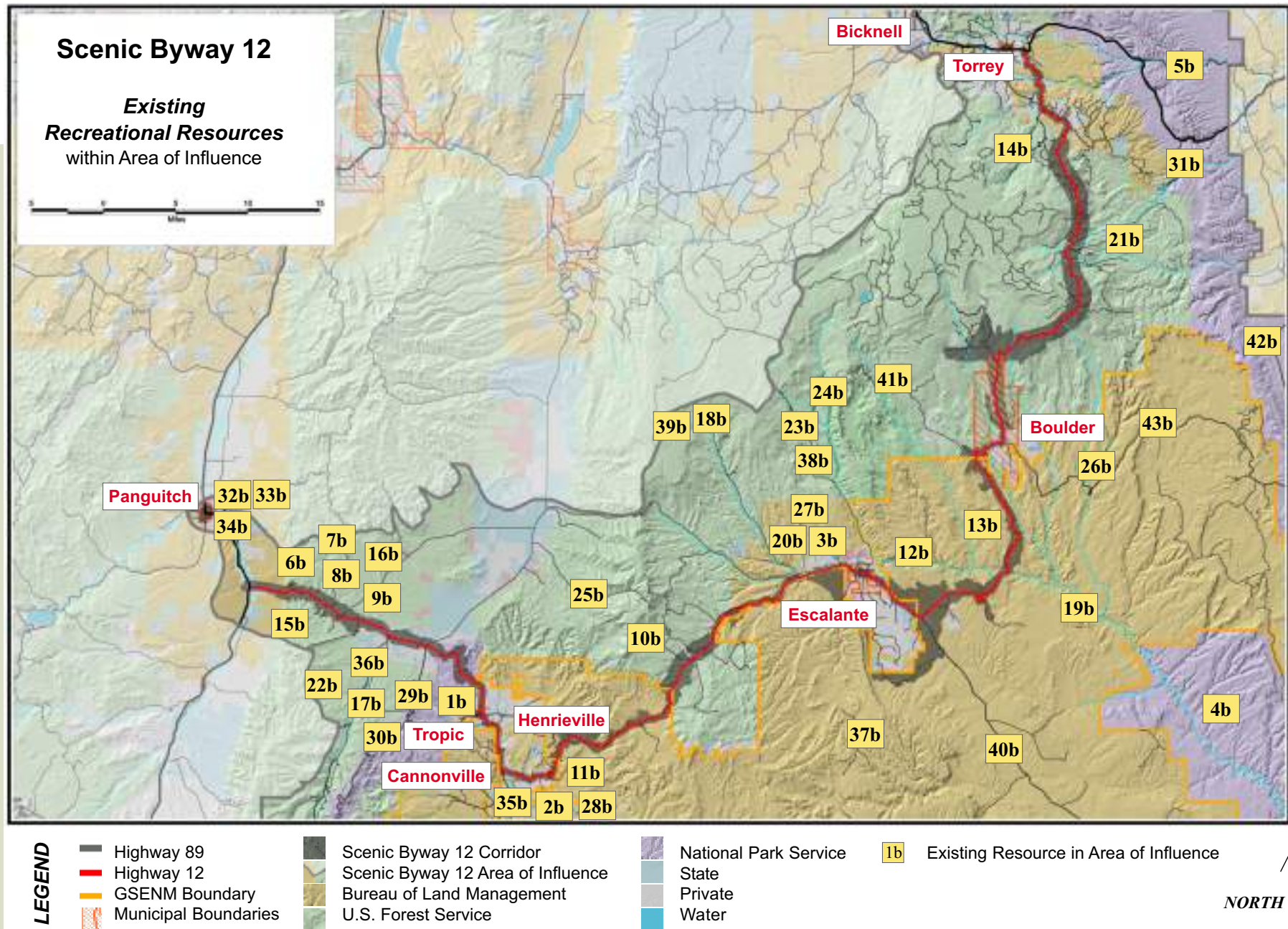
available. However, it must be noted that simply being in the region, with its spectacular scenery, clean air, night skies, and amazing solitude can be a recreational experience in and of itself.

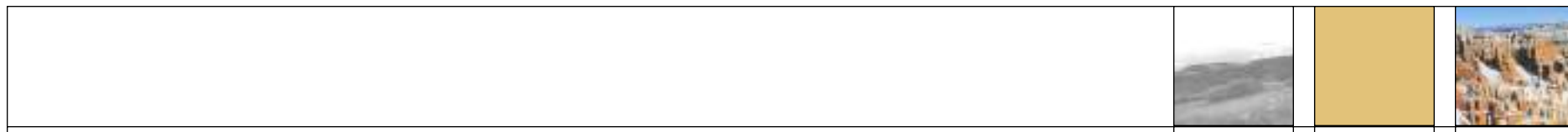




Existing Recreational Resources *Within Corridor*

#	Resource	Responsible Party	#	Resource	Responsible Party
National / State Parks and Monuments			Campgrounds		
1a	Bryce Canyon National Park	NPS	17a	Red Canyon Campground	USFS
2a	Grand Staircase-Escalante National Monument	BLM	18a	Calf Creek Recreation Area	BLM
3a	Anasazi State Park	DNR	19a	Oak Creek Campground	USFS
Trails			20a	Pleasant Creek Campground	USFS
4a	Thunder Mountain Trailhead	USFS	21a	Singletree Campground	USFS
5a	Red Canyon Bike Trail	USFS	22a	Red Canyon RV & Campground	Private Owner
6a	Butch Cassidy Trailhead	USFS	23a	Bryce Canyon Pines Campground	Private Owner
7a	Mossy Cave Trail	NPS	24a	Bryce Pioneer Village RV & Campground	Private Owner
8a	Escalante Town Trailhead	BLM	25a	Cannonville Bryce Valley KOA	Private Owner
9a	Escalante River Trailhead	BLM	26a	Broken Bow RV & Campground	Private Owner
10a	Lower Calf Creek Falls Trail	BLM	27a	Moqui RV Park	Private Owner
11a	Great Western Trail	USFS	28a	Boulder Exchange RV	Private Owner
12a	Chriss Lake Trailhead	USFS	29a	Wonderland Resort RV	Private Owner
Rivers					
13a	East Fork of the Sevier River				
14a	Paria River				
15a	Escalante River				
16a	Fremont River				


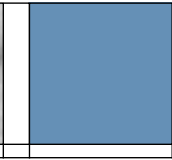





Existing Recreational Resources

Within Area of Influence

#	Resource	Responsible Party	#	Resource	Responsible Party
National / State Parks and Monuments			Campgrounds		
1b	Bryce Canyon National Park	NPS	22b	King Creek Campground	USFS
2b	Kodachrome State Park	DNR	23b	Posey Lake Campground	USFS
3b	Escalante Petrified Forest State Park	DNR	24b	Blue Spruce Campground	USFS
4b	Glen Canyon National Recreation Area	NPS	25b	Pine Lake Campground	USFS
5b	Capitol Reef National Park	NPS	26b	Deer Creek Campground	BLM
Trails			27b	Escalante State Park Campground	DNR
6b	Grand View Trail	USFS	28b	Kodachrome State Park Campground	DNR
7b	Losee Canyon Trailhead	USFS	29b	Ruby's Inn RV & Campground	Private
8b	Casto Canyon Trailhead	USFS	30b	Bryce Canyon NP Campground	NPS
9b	Butch Cassidy Draw	USFS	31b	Capitol Reef Campground	NPS
10b	Powell Point Trailhead	USFS	32b	Big Fish KOA Campground	Private
11b	Henrieville to Kodachrome Trail	Private, BLM, State	33b	Hitch N' Post Campground	Private
12b	Boulder Mail Trail	BLM	34b	Paradise RV & Campground	Private
13b	Upper Calf Creek Falls	BLM	Scenic Backways		
14b	Great Western Trail	USFS	35b	Cottonwood Canyon Road	Garfield/Kane Co.
15b	Coyote Hollow Trailhead	USFS	36b	East Fork of the Sevier Road	Garfield Co./USFS
16b	Fremont ATV Trail	USFS	37b	Smoky Mountain Road	Garfield/Kane Co.
Rivers, Lakes, and Reservoirs			38b	Posey Lake Road	Garfield Co./USFS
17b	Tropic Reservoir	USFS	39b	Griffin Top Road	Garfield Co./USFS
18b	Barker Reservoirs	NPS	40b	Hole in the Rock Road	Garfield/Kane Co.
19b	Escalante River	GSENM	41b	Hell's Backbone Road	Garfield Co./USFS
20b	Wide Hollow Reservoir	Esc. Irrigation Co.	42b	Notom-Bullfrog Road	Garfield/Kane Co.
21b	Lower Bowns Reservoir	USFS	43b	Burr Trail Road	Garfield Co./NPS

			
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Strategies for Recreational Resources

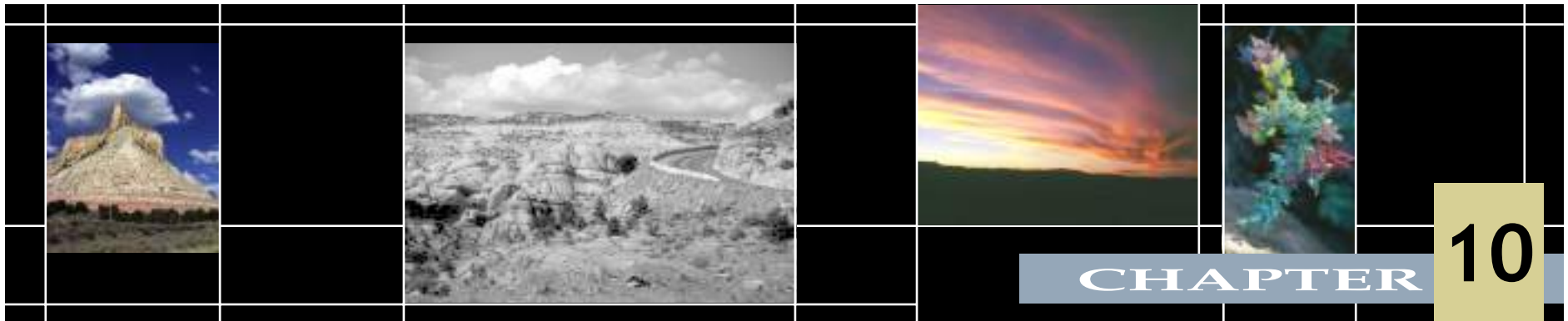
- Work with agencies and related businesses to provide recreational facilities that will accommodate travelers, including the physically challenged.
- Continue to update and produce comprehensive recreational materials to provide important directional and safety information.
- Encourage the extension of the recreational season to a year-round calendar.



-There is a variety of recreational activities along Scenic Byway 12.

Proposed Actions for Recreational Resources

#	Resource	Proposed Action	Responsible Party
A	Red Canyon Bike Trail	Extend to Bryce Canyon.	USFS, NPS
B	Hoodoo Formation Trail	Combine parking with the Cream Cellar Route site and develop a one-mile loop trail.	GSENM
C	Escalante River Trailhead	Install new kiosk; install toilet.	GSENM
D	Calf Creek Recreation Area	Complete site plan.	GSENM
E	Upper Calf Creek Falls Trailhead	Do NOT install signage on Byway 12.	GSENM
F	Great Western Trail	Improve all signage.	USFS



CHAPTER

10

Scenic Resources

Existing Scenic Resources

Scenic quality is the heightened visual experience derived from the view of natural and man-made elements of the visual environment of the scenic byway corridor. The characteristics of the landscape are strikingly distinct and offer a pleasing and most memorable visual experience. All elements of the landscape - landform, water vegetation, and man-made development - contribute to the quality of the corridor's visual environment. Everything present is in harmony and shares in the intrinsic qualities. (FHWA Policy 5.18.95)

The scenic quality along the Scenic Byway 12 corridor is evident in every mile. The outstanding landscape contributes to the reasons why Scenic Byway 12 is considered the crown jewel of southern Utah. The passage through the corridor is somewhat similar to a moveable feast; around every turn there is another remarkable view or landmark that makes driving the byway a memorable experience.

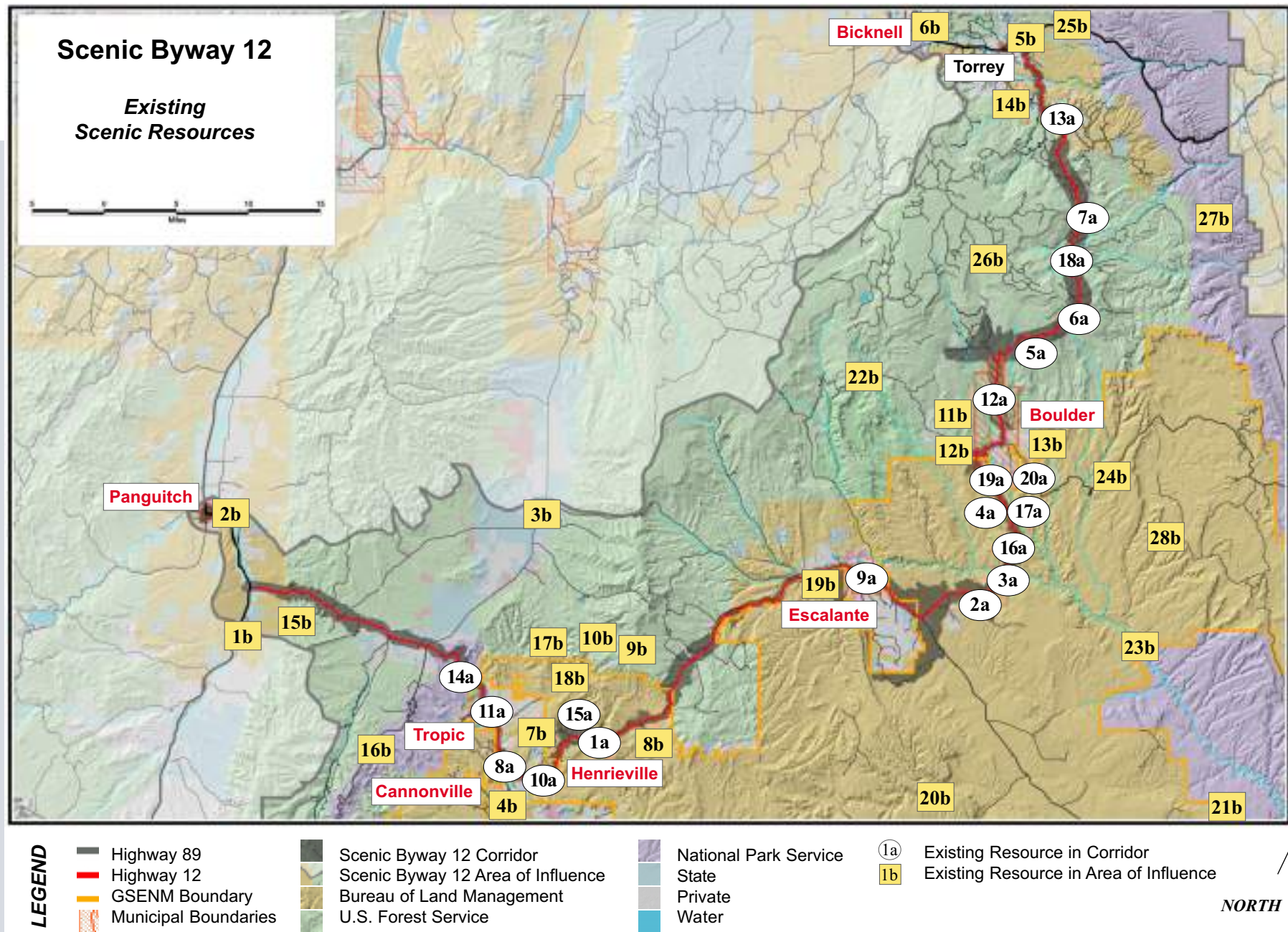
Traveling Scenic Byway 12 is a passage through time. The eroded cliffs of exposed stratigraphy take us through a geologic table of

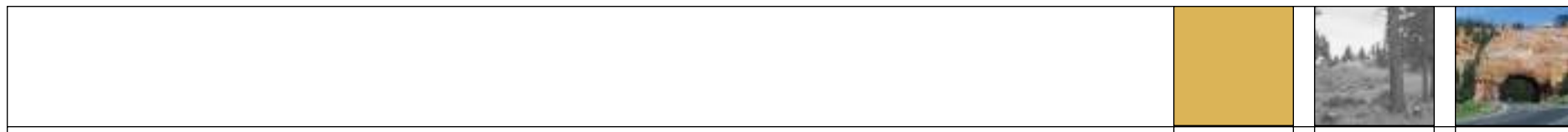
eons. The barns, outbuildings, pioneer structures and rip-gut fencing remind the traveler of the recent heritage. It takes time to enjoy this wonderful

scenic byway! The winding two-lane road insists that the traveler savor the experience.



-Hiking the Peek-a-boo Loop in Bryce Canyon National Park, Utah.






Existing Scenic Resources *Within Corridor*

#	Resource		#	Resource
Overlooks			Natural Areas	
1a	Upper Blues Overlook		14a	Bryce Canyon
2a	Head of the Rocks Overlook		15a	The Blues
3a	Boynton Overlook		16a	Calf Creek-Escalante River Canyons
4a	Hogsback Overlook		17a	The Hogsback
5a	Homestead Overlook		18a	Boulder Mountain
6a	Steep Creek Overlook		19a	New Home Bench
7a	Larb Hollow Overlook		20a	Dry Hollow
Settlements				
8a	Cannonville			
9a	Escalante			
10a	Henrieville			
11a	Tropic			
12a	Boulder			
13a	Grover			

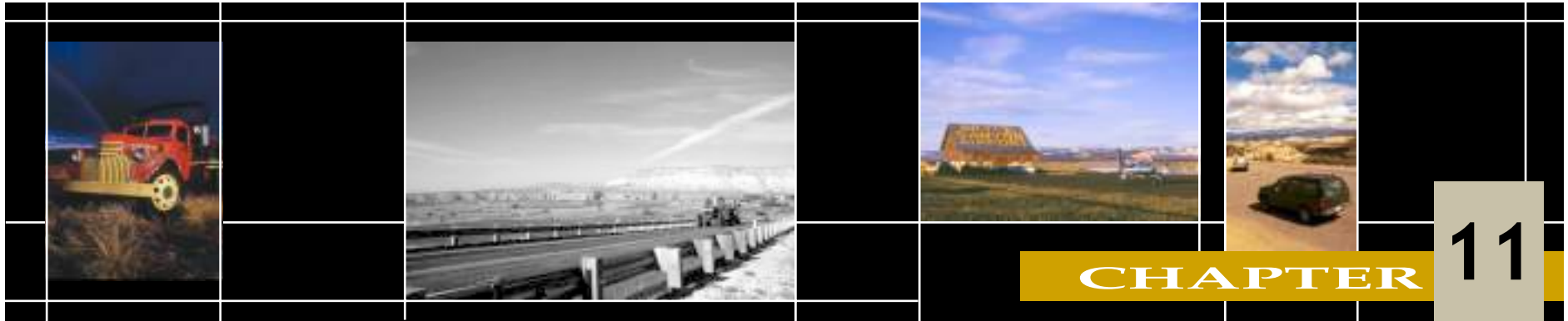
Strategies for Scenic Resources

- A. Recommend methods to preserve and protect visual quality along byway corridor within the existing ordinances.
- B. Encourage the enforcement of the existing regulations regarding removal of off-site signage.
- C. Encourage and work with local governments in consolidating business and services signage into single, standardized units.
- D. Work with the Utah Department of Transportation in replacing concrete “jersey” barriers with retaining structures that are equally effective but more aesthetically appropriate.
- E. Work with federal, state, and local agencies to institute common and consistent design and color standards for signage, public rest areas and similar facilities, and interpretive exhibits and kiosks.
- F. Encourage future development of industrial structures, such as cell phone towers, power lines, and telephone lines to be designed to blend into the landscape.

			
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Existing Scenic Resources *Within Area of Influence*

#	Resource		#	Resource
Settlements			Natural Areas	
1b	Hillsdale		15b	Red Canyon
2b	Panguitch		16b	Bryce Canyon
3b	Widstoe		17b	Pink Cliffs
4b	Georgetown		18b	The Blues
5b	Torrey		19b	Little Desert
6b	Bicknell		20b	Fiftymile Mountain
Landmarks			21b	Navajo Mountain
7b	Promise Rock		22b	Hell’s Backbone
8b	Sinking Ship		23b	Escalante River Canyons
9b	Powell Point		24b	Long Canyon
10b	Henderson Point		25b	Velvet Ridge
11b	Schoolhouse Ledge		26b	Boulder Mountain
12b	Balancing Rock		27b	Waterpocket Fold
13b	Sugarloaf		28b	Circle Cliffs
14b	Cockscomb			



Transportation and Safety Plan

The safety conditions for Scenic Byway 12 are generally good. The Utah Department of Transportation is conducting a separate Corridor Study that specifically relates to the maintenance

and safety conditions for Scenic Byway 12. This Scenic Byway 12 CMP is not intended to address operational problems related to Scenic Byway 12, but to record the areas of concern brought forth by the public in this planning process.

Safety for travelers on Scenic Byway 12 was one of the concerns voiced by the public in the Town Meetings. UDOT has for years, endeavored to keep the byway safe for all travelers. Their efforts are acknowledged as they address the emergency concerns when necessary, and address a maintenance schedule regularly.

It is understood, that bicycle traffic, pedestrians stopping on the byway, narrow shoulders or lack of shoulders; and the need for passing lanes are just a few of the areas of concern that continuously need

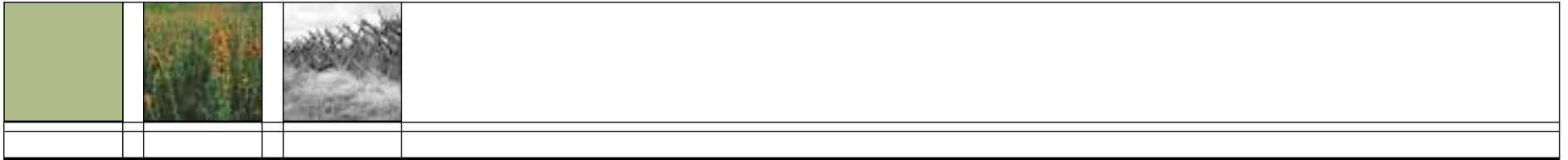
to be addressed as the byway receives more travelers annually.

Scenic Byway 12 is included in the Utah Department of Transportation's long range planning process. As noted, safety improvements and regular maintenance of the byway is an ongoing process. Through the corridor management planning process the safety, maintenance and signage issues are addressed and strategies will be recommended to continue this important step in enhancing and protecting the byway right-of-way.

Scenic Byway 12 partners will continue to look to UDOT for a cooperative relationship in the development of plans to improve the safety of the highway. These plans will be coordinated with the Scenic Byway 12 Steering Committee. Working together, the byway will be maintained to the level deserving of a scenic byway.



-A vehicle enters Red Canyon, the western gateway to Scenic Byway 12.



Traffic Counts

The traffic along Scenic Byway 12 has steadily increased in the last years. There has been a 9% increase in the *Annual Average Daily Traffic Count*

from the fiscal year 1997 to fiscal year 2000. In light of this fact, it appears that planning for a consistent increase in the number of travelers is

prudent. The chart below demonstrates the traffic patterns:

Annual Average Daily Traffic Count					
<i>Location Description</i>	<i>Beginning Mileage</i>	<i>End Mileage</i>	<i>Section Length</i>	<i>Fiscal Year 1997</i>	<i>Fiscal Year 2000</i>
Junction SR 89 to Bryce Canyon (SR 63)	0.00	13.68	13.68	2,106	2,360
Junction SR 63 to North Tropic	13.68	20.95	7.27	2,080	2,330
Incorporated Limits Tropic	20.95	21.48	0.53	1,650	1,620
South Tropic to West Cannonville	21.48	25.64	4.16	1,168	1,323
Incorporate Limits Cannonville	25.64	25.95	.031	1,199	1,345
East Cannonville to West Henrieville	25.95	29.25	3.30	1,245	1,395
Incorporated Limits Henrieville	29.25	29.48	0.23	1,435	1,605
East Henrieville to West Escalante	29.48	59.16	29.68	1,015	1,255
Incorporated Limits Escalante	59.16	60.49	1.33	3,213	3,610
East Escalante to Hole-in-the-Rock Road	60.49	64.82	4.33	1,086	1,220
Hole-in-the-Rock Road to West Boulder	64.82	83.77	18.95	1,086	1,220
West Boulder to Forest Boundary	83.77	87.92	4.15	917	1,030
Forest Boundary to North Boulder	87.92	92.96	5.04	574	645
North Boulder to County Boundary Line	92.96	111.21	18.25	574	645
County Boundary Line to Forest Boundary	111.21	115.74	4.53	302	345
Forest Boundary to Grover	115.74	117.00	1.26	302	345
Grover to Teasdale Road	117.00	118.95	1.95	246	305
Teasdale Road to Junction SR 24	118.95	123.67	4.72	205	420
Total Annual Average Traffic	0	124	124	20,403	23,018



General Byway Maintenance Concerns

The following items are general maintenance concerns that exist along Scenic Byway 12.

Flood control /Rock slides - Plans for addressing these concerns have been and will be ongoing.

Drainage and culverts - Replacement and clearing of culverts is regularly addressed in the maintenance process by UDOT.

Shoulders - Highway shoulder widening where needed and feasible will be planned and prioritized in coordination with UDOT to provide a safe and enjoyable travel experience for all those who use the highway.

Passing Lanes – The safe movement of multi-purpose traffic along the highway is a concern, for local businesses, residents, truck traffic, and visitors. The strategic location of these passing lanes will greatly enhance the driving experience of visitors and local residents.

Pullouts - More pullouts are potentially needed for slow-moving traffic along the byway. Pullouts should be clearly signed differentiating between those that are intended for slow traffic turnouts and those that are designed for scenic viewing.

Steep Slopes -The natural terrain lends itself to breathtaking views and relatively steep areas on the highway. The Scenic Byway 12 committee will encourage a positive look at these areas in coordination with the UDOT to ensure continued enjoyment of the natural surroundings while supporting safety.

Sight Distance - Sight distance both directions will be a concern in the design and location of these pullouts along with clear signing as to ingress and egress locations and speed reductions where necessary.


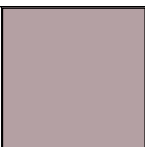

Speed - Consistent and appropriate speed limits are needed along the byway. UDOT will be encouraged to study speed transitions at intersections, pullouts, passing lanes, etc. to further enhance the travel experience and traffic integration along the highway.

Signage - Visible and consistent signage is necessary for the safety and aesthetics of the byway. Many travelers regularly stop for photo opportunities in areas that can create traffic-pedestrian hazards. Clear, understandable signage in these areas will be encouraged.

On the following page is an inventory of safety and maintenance areas along Scenic Byway 12.

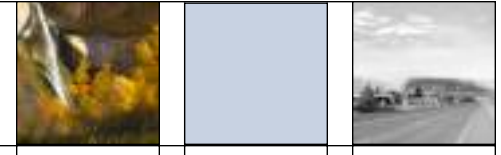


-UDOT crews working east of Henrieville, Utah
with Powell Point in the background.

Highway Safety and Maintenance Inventory

<i>Mileposts</i>	<i>Priority Safety and Maintenance Areas</i>
1-7	Wash-out problems, signage and crosswalks in areas of high motor vehicle/pedestrian traffic
7-14	Snow drift accumulation
14	Steep slopes result in difficulty keeping shoulder material in place
14-16	Passing lanes needed
14-20	Lack of designated ROW, weed control, flood control, shoulder work, edge slough-off, narrow and blocked culverts
21-22	Culverts blocked with old but operative irrigation pipes
22	County road intersection, sight distance problem
24-26	Chronic wash-out problem
27	Culvert box needs to be extended
29	Regular maintenance in Henrieville Creek area
29.5-33	Sinking of road-base through the "Henrieville Dips"
35-37	Culvert maintenance due to flood debris
37-48	Wash-out problems, flooding, sharp curves, steep drop-offs, no guardrails
47	Culvert needs to be extended
49-52	Chronic flooding and wash-out problems
55	Y-intersection (Main Canyon), sharp curve, and icy roads in winter
57-59	Drainage problems due to ditches and culverts being closed off
60-72	Problems keeping shoulder material in place
70-84	Shoulders need material, material sources inadequate, rock slides, wash-outs, narrow road, oil (pavement) depth, drainage, engineering of base, lack of designated ROW, shoring up barriers with fill/false shoulders, sight distance
83-112	Rock slide and drainage problems, snow drift, lack of designated ROW
94-101	Material sites used as borrow source are in this section
117-118	Alligator cracking, may need to be rebuilt down to the base
118-119	Rutting in road surface
119-124	Narrow and winding curves, sharp turns with drop-offs



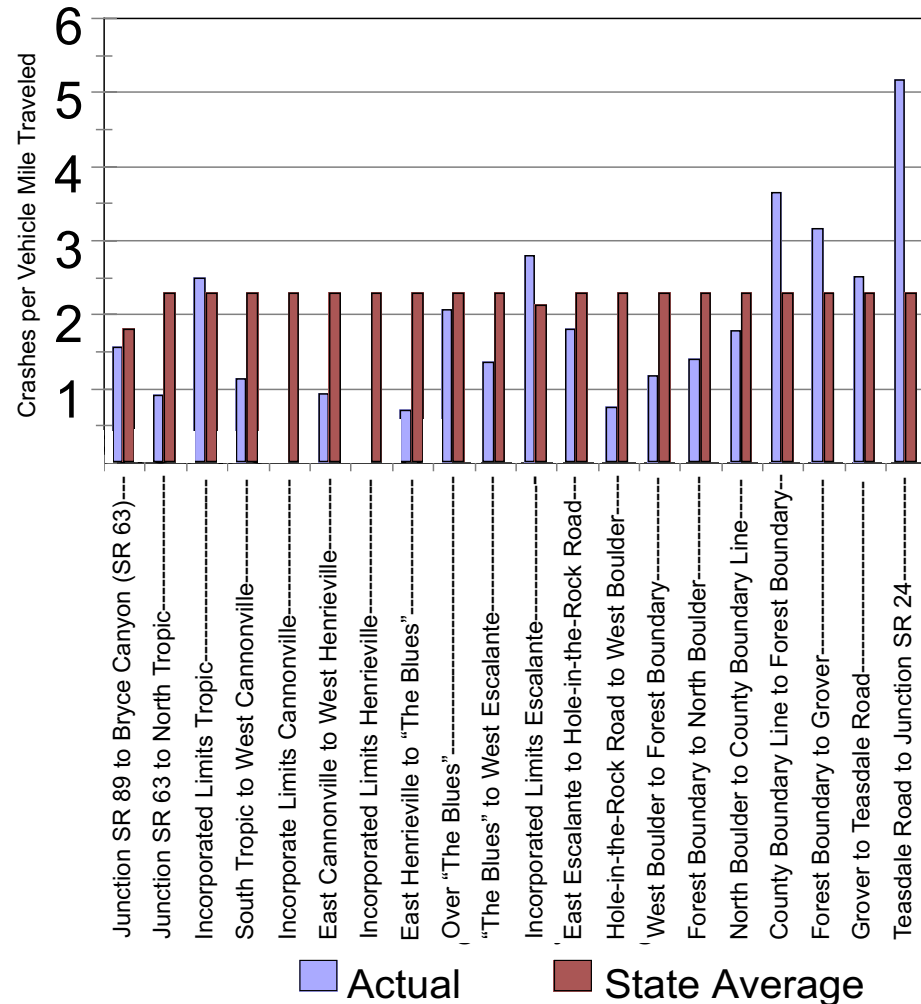
Crash History


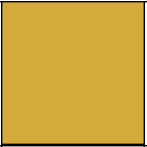

The Scenic Byway 12 crash rate is overall lower than the statewide average rate for highways with similar function and traffic volume. The crash rate is based upon the number of crashes per vehicle mile traveled. While this is a positive aspect in the safety of travelers on the highway, this will continually be an area that will be taken into consideration by the Scenic Byway 12 Steering Committee. UDOT will continue to monitor the crash records of this byway to identify locations where the crash rate increases above the statewide average rate for similar byways so safety improvements can be designed and implemented.



-Sunset along byway traveling between Cannonville and Tropic, Utah.

CRASH RATES OF SCENIC BYWAY 12 COMPARED TO UTAH STATE AVERAGES



Safety Management Strategies

Several items were identified through the long and short range planning process. An overview of safety management strategies for Scenic Byway 12 is provided below.

A. Accommodate bicycle traffic in a safe manner by considering some or all of the following solutions:

- *coordinate a bicycle plan among Scenic Byway 12 partners*
- *separate bicycle traffic from motorized traffic lanes*
- *extend existing bike trails*
- *provide alternative bike paths*
- *add bike lanes*

B. Reduce safety concerns of cattle drives and open range cattle on byway by some or all of the following solutions:

- *utilize better signage*
- *use flags or hazard lights to warn about cattle drives*
- *provide adjacent passage routes*
- *construct fences*
- *encourage use of reflective ear tags*

C. Encourage the communities to seek additional

funding for emergency services and for law enforcement personnel, including Search and Rescue.

D. Encourage UDOT to install traffic warning and directional signage in locations where it does not exist or is currently insufficient.

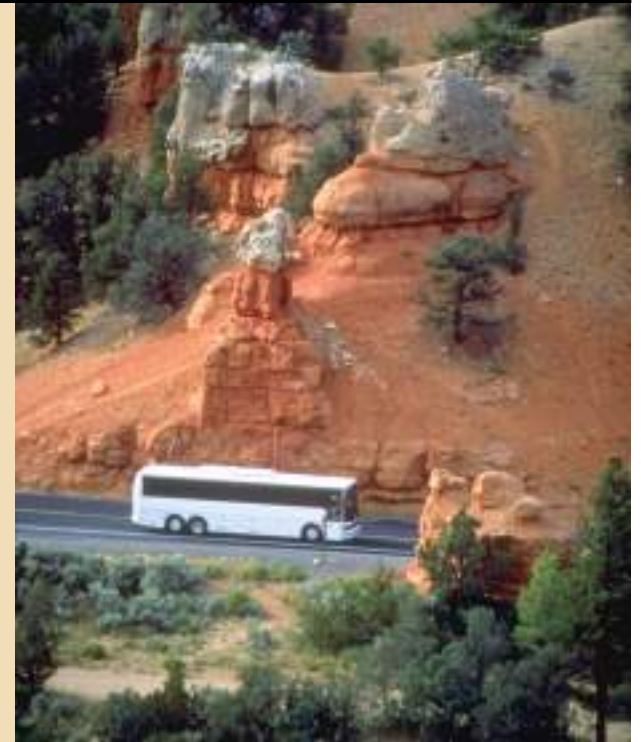
E. Encourage UDOT to construct shoulders, auxiliary lanes, or parking in interpretive areas if warranted by safety concerns.

F. Encourage the construction of pullouts for slow moving traffic along frequently congested sections of byway, especially interpretive turnouts.

G. Coordinate with UDOT to reduce pedestrian/ auto conflicts by reducing speeds in pedestrian zones, siting scenic or interpretive turnouts in locations that keep pedestrian traffic on the same side of the road and/or install warning signage.

H. Provide information in the form of brochures, maps, kiosks or signs that inform tourists about such topics as services available, safety concerns, and road information.

I. Encourage UDOT to continue the long- and short-range safety planning efforts as well as



-Tour bus traveling through striking red rock formations in Red Canyon.

regular maintenance inspections for Scenic Byway 12.

J. Support the coordination of planning involvement among byway partners for the various levels of safety and maintenance issues in the future.



Meeting Design Standards

Improvements to the highway should be planned and designed with the intention of meeting future transportation needs while protecting the intrinsic values of Scenic Byway 12. This will require continuing cooperation between private land owners, local governments, federal land management agencies and UDOT in order to design

improvements which will serve the public using Scenic Byway 12, commerce, resource extractive industry, land management and safety.

Bicycle and Pedestrian Traffic

Bicycle and pedestrian traffic is now becoming more prevalent along Scenic Byway 12. The new facilities built at Red Canyon provide a separation of bicycle traffic from vehicular traffic to enhance the safety of travelers. Other areas along the highway will be identified where similar projects are needed.

Pedestrian traffic will continue to be planned and provided for at appropriate places along the highway. Locating pullouts and restrooms in locations that pedestrians do not need to cross the byway or interfere with oncoming traffic. Signage that is uniform and clear will be installed to give safety

and directional information to pedestrians.

All future highway construction projects should be designed to consider bicycle and pedestrian concerns.

Increased Tourism and Traffic

It is anticipated that through the implementation of this CMP visitor counts and the average length of stay will increase.

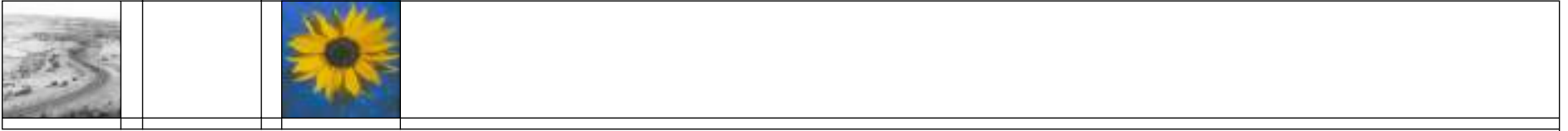
It is anticipated that more traffic will begin to enter the byway from Wayne County due to a longer travel season where travelers utilize the winter months. Whereas much of the perception of the byway has been from the west entrance, a new view of it from the north will be developed to include signage, pullouts, and overlooks.

To accommodate this increase the byway will be enhanced as outlined herein, with pullouts, passing lanes, visitor centers, rest-room facilities, and emergency services. The location, funding, and design of these facilities will be a process taking place over the first few years of the CMP implementation.

In other areas throughout this plan, provisions have been addressed to accommodate the anticipated increases that are expected.



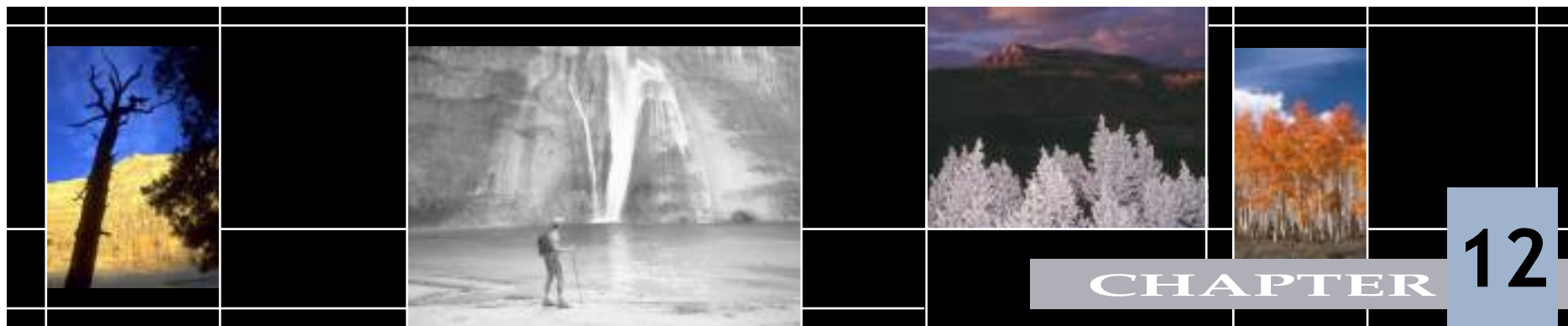
-The Escalante River bridge is a good example of proper design and use of materials.



Emergency Services

The need for emergency services along the byway, as well as the backcountry, is already evident. It is anticipated that more services will be needed as the activity levels increase. These services will need to be located all along the byway for speed of response in emergency situations. Local governments providing these services will need financial assistance to acquire, maintain and operate these services at the level that will be required.

A large percentage of visitors are of international origin. More signage for guiding travelers to emergency service information will be needed using universal symbols. Emergency personnel will need to be prepared to provide services to travelers that are not accustomed to the back roads and rough terrain.



Interpretive Plan

Interpretation is the means by which stories of a place as well as messages addressing safety, resource protection, and visitor orientation are conveyed to visitors.

Based on the variety and extent of intrinsic qualities all along Scenic Byway 12, there are many fascinating stories to tell. Interpretation can provide the footnotes for a clearer image of the stories to be shared. Not only do travelers benefit from learning the stories along the byway, the local communities get to share their stories and host the visitors in their communities.

Along with the stories, there are also important messages about safety, orientation, and resource protection that should be conveyed to travelers to enhance their enjoyment of the region and to protect the resources that they have come here to experience.

This chapter details the Scenic Byway 12 interpretive topic, theme and goals, and lists the existing interpretive sites, products, and publications. It also includes the proposed actions and strategies for enhancing interpretive opportunities along the byway.

Interpretive Topic and Theme

An interpretive topic is the broadest, most general expression of an idea to be conveyed. It is much like a headline of an article or the title of a story. For Scenic Byway 12 it was decided that the guiding interpretive topic upon which the theme and other interpretive materials, waysides, and exhibits would be based is – JOURNEY THROUGH TIME.

The interpretive theme is the key message to be conveyed to the visitor. It was determined that the interpretive theme for Scenic Byway 12 is:

“Vast vistas and layers of history accompany the traveler through the changes of time.”

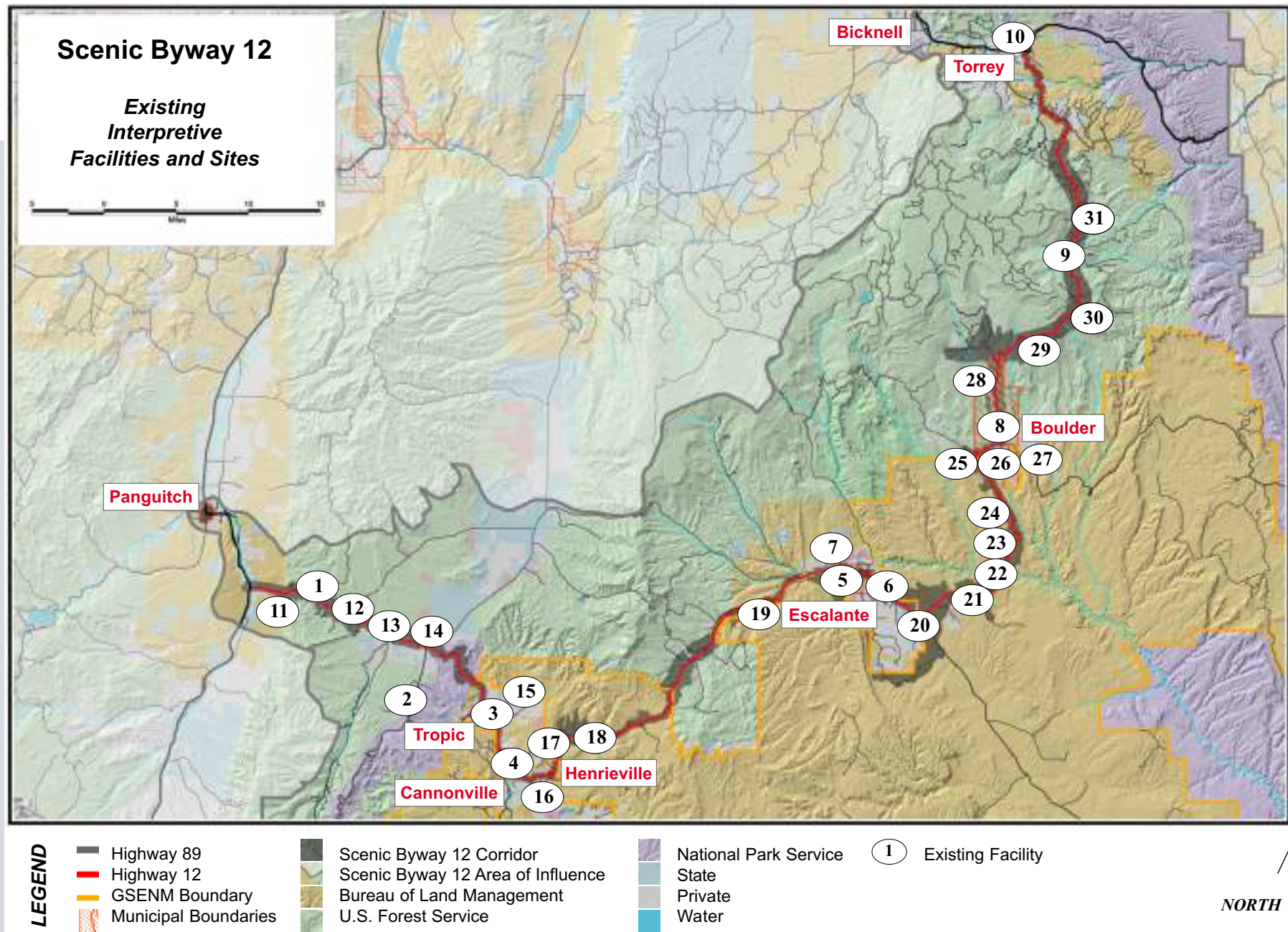
Interpretive Goals

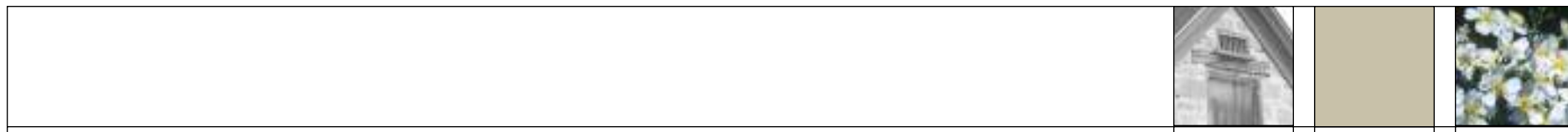
- *Welcome visitors and orient them to facilities, services, and attractions of the area.*
- *Promote a deepening visitor understanding and appreciation of the Scenic Byway 12*
- *Encourage the enjoyment and appropriate use of the corridor.*

- *Encourage responsible use of our public lands through Leave No Trace and Tread Lightly messages.*
- *Provide accurate information about resources, issues, and land management policies in the area.*

Existing Interpretive Facilities and Sites




When Scenic Byway 12 was designated a State Scenic Byway in 1990, interpretive planning was completed and many interpretive pullouts, waysides, and panels were located along the corridor. A map and tables on the following pages detail and highlight the existing interpretive facilities and sites.





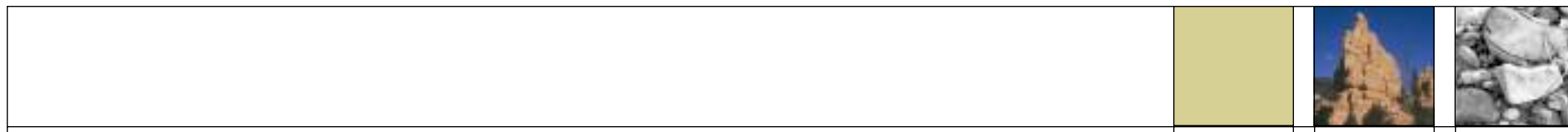
Existing Interpretive Facilities and Sites

#	Facility / Site Name	Mile Post	Description / Site Amenities	Responsible Party
Visitor Information Centers				
1	Red Canyon Visitor Center	3.2	Visitor Information Center for Red Canyon; new center planned	USFS
2	Bryce Canyon Visitor Center	13.5	Visitor Information Center located a few miles south of Scenic Byway 12	NPS
3	Tropic Visitor Information Cabin	21.75	Visitor Information/Orientation	Garfield County
4	Cannonville Visitor Center	25	Visitor Information Center located one block off Scenic Byway 12	GSENM
5	Escalante Interagency Office	59	Multi-agency Visitor Information Center for Dixie National Forest, GSENM, Glen Canyon National Recreation Area	USFS, GSENM, NPS
6	Escalante Visitor Information Cabin	60	Main Street, Escalante; refurbished pioneer cabin; three-panel kiosk	Garfield County
7	Escalante Petrified Forest State Park Visitor Center	58	Visitor Information	DNR
8	Anasazi State Park	87.5	Museum and visitor information center	DNR
9	Wildcat Guard Station / Visitor Center	107	Rest stop with restrooms, day use area, and visitor information center on Boulder Mountain between Boulder and Torrey	USFS
10	Torrey Visitor Information Center	124	Located across from the junction of Scenic Byway 12 and State Road 24	Wayne Co. Travel Council
Overlooks, Pullouts, Waysides, and Trails				
11	Red Canyon Gateway Pullout	2.7	Pullout with three-panel upright kiosk; co-located with Thunder Mountain Trailhead and bike path parking lot; restrooms available	UDOT, USFS,
12	Red Canyon Tunnels Pullout	4.8	One wayside panel; defined pullout	UDOT, USFS
13	Red Canyon Trailhead	2.75	Three-panel upright kiosk; restrooms available; parking lot	USFS
14	Bryce Canyon Airplane Crash Pullout	12.5	Two interpretive wayside panels; define pullout	USFS
15	Tropic Wayside	21.5	Single interpretive wayside panel located near Post Office; not a defined pullout; visibility of site is poor	Town of Tropic
16	Cannonville Wayside	25.75	Single interpretive wayside panel located by town park; two blocks off Scenic Byway 12	Town of Cannonville
17	Henrieville Wayside	29.5	Single interpretive wayside panel located by Old Schoolhouse/Community Center; not a defined pullout	Town of Henrieville

Existing Interpretive Facilities and Sites - Continued

#	Facility / Site Name	Mile Post	Description / Site Amenities	Responsible Party
Overlooks, Pullouts, Waysides, and Trails				
18	Upper Blues Overlook	42	Overlooks the badlands called The Blues; dramatic views of Powell Point and Aquarius Plateau; single interpretive wayside panel; toilet available	GSENM
19	Upper Valley Granaries Pullout	52	Prehistoric Fremont granary nestled in the cliffs above the pullout; single wayside panel and viewing tube; defined pullout	UDOT, GSENM
20	Hole-in-the-Rock Road Pullout	65	Single wayside panel; defined pullout	GSENM, UDOT
21	Head of the Rocks Overlook	70	Expansive views of Escalante Canyons, Boulder Mountain, Henry Mountains; defined pullout; no wayside panels	GSENM, UDOT
22	Boynton Overlook	73	Views of Escalante River drainage and 100 Hands rock art panel; two wayside panels; attractive rock wall; defined pullout	GSENM
23	Calf Creek Recreation Area	75	Lower Calf Creek Falls trail, day use, campground; three information boards and other signage; interpretive brochure for sites along trail available; parking lot; restrooms available	GSENM
24	Top of the Hogsback	80	Wayside panels; located at top of the rise west of the Hogsback; site visibility is poor for making safe turns into and out of pullout	GSENM, UDOT
25	Hell's Backbone / Salt Gulch Wayside	84.5	Single interpretive wayside panel at intersection; not a defined pullout	GSENM, USFS
26	Boulder Overlook	85.5	Single interpretive wayside panel; view of Boulder; defined pullout	USFS, UDOT
27	Burr Trail Junction Wayside	86	Single interpretive wayside panel at intersection; not a defined pullout	UDOT, Town Of Boulder
28	Garkane Power Plant Road Wayside	88	Single interpretive wayside panel at intersection; not a defined pullout	USFS
29	Homestead Overlook	99	Memorial to Clem Church former UDOT Commissioner, wayside panels and multi-panel kiosk; spectacular views to Henry and Navajo Mountains	USFS
30	Steep Creek Overlook	100	Wayside panels; captures view of Waterpocket Fold	USFS
31	Larb Hollow Overlook	109	Wayside panels; views to Henry and Navajo Mountains and across Waterpocket Fold	USFS






Existing Interpretive Publications, Products, and Programming

Several interpretive publications, products, and programming activities are currently available from national parks, county travel council offices, visitor

information centers, and local businesses. A listing of those items and activities, along with the responsible agency or group follows:

Existing Interpretive Publications, Products, and Programming

<i>Garfield and Wayne County Travel Councils</i>	<i>BLM - Grand Staircase-Escalante National Monument</i>
Boulder Mountain: Throne of the Colorado Plateau	Grand Staircase Escalante National Monument Map
The Highway 12 Experience-Video	Grand Staircase Escalante National Monument Visitor Guide
The Byway 12 Scenic Byway Route Guide	Grand Staircase Escalante National Monument Visitor Information Brochure
Bryce Canyon Country Brochure	<i>USFS – Dixie National Forest</i>
Wayne County Brochure	Dixie National Forest - Powell, Escalante & Teasdale Ranger Districts Map
Highway 12 tear-off map	Dixie National Forest Travel Map
<i>Chambers of Commerce</i>	Great Western Trail Brochure
Walking Tour of Pioneer Homes & Barns Brochure	Pine Lake OHV Trail Guide
Guide for Artists and Artisans	Grand View Trail Guide
Heritage Highway 89-Boulder Loop	Fremont ATV Trail Guide
<i>National Park Service</i>	Paunsaugunt ATV Trail Guide
Bryce Canyon National Park Official Map and Guide	Red Canyon Trail Map
Bryce Canyon National Park Visitor Guide – Hoodoo	Teasdale Ranger District Recreational Guide
Bryce Canyon National Park interpretive programs	Dixie National Forest Video
Bryce Canyon National Park radio system, call # 16.10	
Capitol Reef National Park Official Map and Guide	
Capitol Reef National Park Visitor Guide	
Capitol Reef National Park interpretive programs	
Glen Canyon National Recreation Area Official Map and Guide	
Glen Canyon National Recreation Area interpretive programs	

Proposed Interpretive Actions

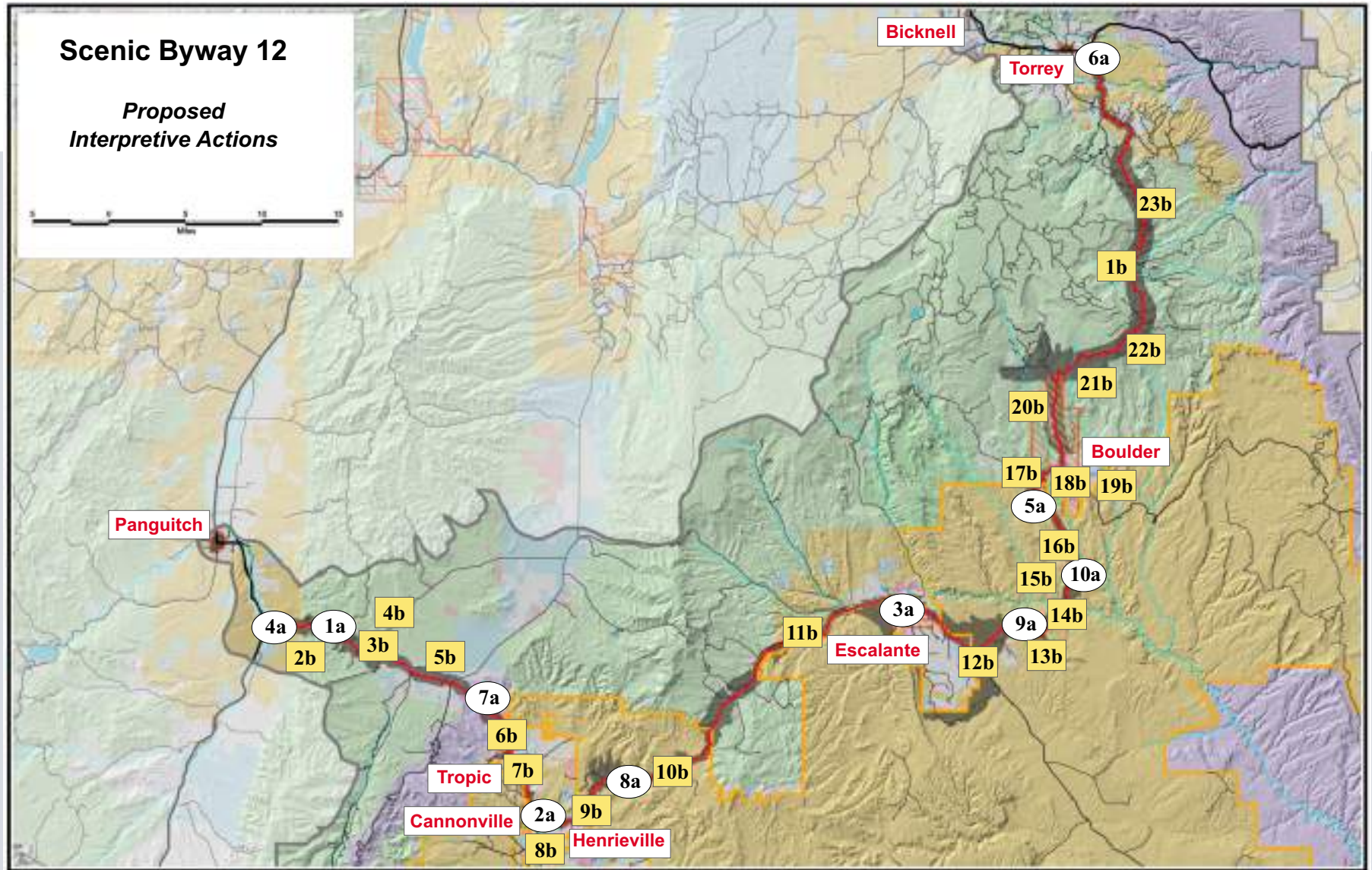
The following tables and the adjacent map detail the proposed new interpretive sites as well as improvements to be made at existing locations.

Proposed New Interpretive Facilities and Sites

#	Facility / Site Name	Mile Post	Description / Site Amenities	Responsible Party
Visitor Information Centers				
1a	Red Canyon Visitor Center	3.2	New Visitor Center at current site in planning and design stage in 2003	USFS
2a	Cannonville Visitor Center	25	Visitor Information Center located one block off Scenic Byway 12	GSENM
3a	Escalante Interagency Office	59	New Interagency Visitor Center (at current site incorporating remodel of existing building) in planning and design stage; to be completed 6/2003	USFS, GSENM, NPS
Portals				
4a	US 89 / Scenic Byway 12 Junction	0	Install welcome sign	UDOT, USFS, NPS, BLM
5a	Northeast Monument Portal	80.5	Install portal kiosk, parking lot to accommodate buses, restrooms, day use facilities, and develop interpretive trail	GSENM, UDOT
6a	Byways 12 and 24 Junction	124	Install welcome sign	UDOT, USFS, NPS, BLM
Overlooks, Pullouts, Waysides, and Trails				
7a	Plateau Pullout	13	Install kiosk for Bryce Canyon shuttle information for westbound traffic	NPS
8a	Lower Blues Overlook	40	Develop overlook with parking, tables, toilets, and interpretive trail	GSENM
9a	Cream Cellar Route Trailhead	69	Develop parking area; improve trail; develop interpretive brochure; install wayside panel(s)	GSENM, SUP, DUP, UDOT, Last Wagon Museum
10a	Lava Balls Overlook	79	Develop pullout on east side of byway; install wayside panel(s); develop trail	GSENM, UDOT

Scenic Byway 12

Proposed Interpretive Actions



LEGEND


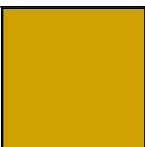

- Highway 89
- Highway 12
- GSENM Boundary
- Municipal Boundaries

- Scenic Byway 12 Corridor
- Scenic Byway 12 Area of Influence
- Bureau of Land Management
- U.S. Forest Service

- National Park Service
- State
- Private
- Water

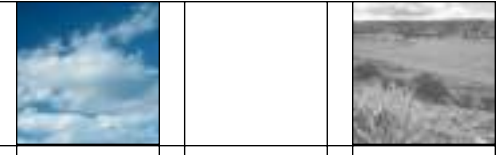
- ①a Proposed New Interpretive Facility
- ①b Proposed Improvement to Existing Interpretive Facility

NORTH

Proposed Improvements to Existing Interpretive Facilities and Sites

#	Facility / Site Name	Mile Post	Description / Site Amenities	Responsible Party
Visitor Information Centers				
1b	Wildcat Guard Station/Visitor Center	107	Pave rest area parking lot and loop to visitor center	USFS
Overlooks, Pullouts, Waysides, and Trails				
2b	Red Canyon Gateway Pullout	2.7	Replace kiosk	UDOT, USFS, NPS
3b	Red Canyon Tunnels Pullout	4.8	Replace wayside panel(s)	USFS
4b	Red Canyon Trailhead	2.75	Replace kiosk	USFS
5b	Bryce Canyon Airplane Crash Wayside	12.5	Replace wayside panel(s)	
6b	Mossy Cave Trailhead	17	Institute interpretive programming by 2004	NPS
7b	Tropic Wayside	21.5	Replace wayside panel; locate in more visible location	Tropic
8b	Cannonville Wayside	25.75	Replace wayside panel	Cannonville
9b	Henrieville Wayside	29	Replace wayside panel	Henrieville
10b	Upper Blues Overlook	42	Move parking east; replace wayside panel	GSENM
11b	Upper Valley Granaries	52	Upgraded parking area for ADA compliance; multi-panel wayside with universally-accessible spotting tubes	UDOT, GSENM
12b	Hole-in-the-Rock Pullout	65	Install multi-panel wayside; develop path to viewpoint	GSENM, UDOT
13b	Head of the Rocks Overlook	70	Develop wayside interpretive plan	GSENM
14b	Boynton Overlook	73	Create cut-outs in rock wall for better viewing	GSENM
15b	Calf Creek Recreation Area	75	Consolidate signage into single kiosk; implement interpretive programs; construct amphitheater	GSENM
16b	Top of the Hogsback Pullout	80	Improve existing pullout	GSENM, UDOT
17b	Hell's Backbone/Salt Gulch Wayside	84.5	Replace wayside panel	GSENM, USFS
18b	Boulder Overlook	85.5	Replace single wayside with two panels; improve pullout	USFS, UDOT
19b	Burr Trail Junction Wayside	86	Interpretive wayside panel/improve signage	UDOT, Boulder
20b	Garkane Power Plant Road Wayside	88	Interpretive wayside panel/improve signage	USFS
21b	Homestead Overlook	99	Replace wayside panels and kiosk; restore Clem Church Memorial	USFS
22b	Steep Creek Overlook	100	Finish paving Steep Creek Overlook; replace wayside panels	USFS
23b	Larb Hollow Overlook	109	Replace wayside panel; improve kiosk	USFS



Interpretive Strategy

The interpretive strategy is based upon the interpretive goals and an understanding of visitor use and expectations. That strategy facilitates how the byway's compelling stories are to be shared with the traveler. Acknowledging the many stories that can be told, the interpretive planners will filter those stories through the byway interpretive topic of ***JOURNEY THROUGH TIME*** and the related theme: ***"Vast vistas and layers of history***

accompany the traveler through the changes of time" when producing the various interpretive products and exhibits. At specific interpretive sites, it will be necessary to develop an interpretive plan with sub-themes that are related to the primary topic and theme.

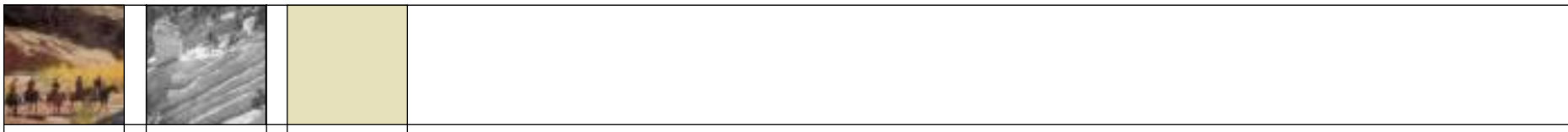
Considering that the existing and proposed interpretative sites along Scenic Byway 12 are spread along 124 miles, it was decided that the best approach to convey the broad notion of the interpretive topic and theme would be to focus on

certain primary sites. Whereas, at the other, secondary sites more specific and detailed interpretation and information would be provided. This approach allows the traveler to come away with the essence of the byway theme without needing to stop at each and every pullout and wayside.

The primary and secondary sites are listed in the following tables.

Primary Interpretive Sites

Site	Mile Post	Sub-Theme Topics	Agency Responsible
Red Canyon Gateway Pullout	2.7	Orientation / Geology	USFS
Red Canyon Visitor Center	3.2	Geology, Culture, Bio-Diversity	USFS
Bryce Canyon Visitor Center	13.5	Geology, Ecology, Culture	NPS
Cannonville Visitor Center (under construction)	25	Human Geography	BLM
Lower Blues Overlook	40	Geology, Explorers, Paleontology	BLM
Upper Valley Granaries Pullout	52	Prehistory, Archeology, Native American	BLM, UDOT
Escalante Science Center	59	Ecology, Human Geography, Mosaic Landscapes	BLM
Head of the Rocks Overlook	70	Geology, Biodiversity, Human Geography	BLM, UDOT
Lava Balls Overlook (Proposed)	80	Culture, History, Geology	BLM, UDOT
Northeast Monument Portal (Proposed)	81	Culture, History	BLM, UDOT
Boulder Overlook	85.5	History, Settlement Patterns	USFS
Anasazi State Park Visitor Center	87.5	Prehistory, Archeology	DNR
Homestead Overlook	99	Natural, Vegetative	USFS
Larb Hollow Overlook	109	Geology, History	USFS



Secondary Interpretive Sites

<i>Site</i>	<i>Mile Post</i>	<i>Sub-Theme Topics</i>	<i>Agency Responsible</i>
US 89 / Scenic Byway 12 Junction (Proposed)	0	Portal / Welcome Sign	UDOT/Garfield Co.
Red Canyon Tunnels Pullout	4.8	History	USFS
Red Canyon Draw Trailhead	4.9	Natural/History	USFS
Bryce Canyon Airplane Crash Pullout	12.5	History	UDOT
Plateau Pullout (Proposed)	14	Information	NPS
Mossy Cave Trailhead	17	Natural/Historic	NPS
Tropic Wayside	21.5	Historic/Cultural	Tropic
Tropic Visitor Information Cabin	22	Orientation/Information	Tropic
Cannonville Wayside	25.75	History/Cultural	Cannonville
Henrieville Wayside	29.5	History/Cultural	Henrieville
Upper Blues Overlook	42	Geology/Paleontology	GSENM
Escalante Petrified Forest State Park	58	Geology	DNR
Escalante Visitor Information Cabin	59.5	Orientation/Information	Escalante
Hole-in-the-Rock Pullout	65	History/Cultural/Geology	GSENM/Garfield Co.
Cream Cellar Route Trailhead	69	History	BLM
Boynton Overlook	73	Natural/Historic	BLM
Calf Creek Recreation Area	75	Recreation/Natural/Scenic	GSENM
Top of the Hogsback Pullout	80	Scenic	BLM
Hell's Backbone / Salt Gulch Wayside	84.5	History/Natural	BLM/USFS
Burr Trail Junction Wayside	86	History/Geology	Boulder
Garkane Power Plant Road Wayside	88	History/Cultural	UDOT
Steep Creek Overlook	100	Scenic/Geology	USFS
Wildcat Guard Station / Visitor Center	107	Orientation/Information/History	USFS
Torrey Visitor Information Center	124	Orientation/Information	Wayne Co. Travel Council
Scenic Byway 12 and State Road 24 Junction (Proposed)	124	Portal / Welcome Sign	UDOT/Wayne Co.



CHAPTER

13

Economic Development Plan

One of the primary goals of this CMP is to protect and enhance the quality of life and economic vitality of local communities. If the CMP contributes to the local economy in a balanced way the other goals will be realized.

During the public meetings it became apparent that the economy of local communities along Scenic

Byway 12 was of paramount concern and that a stronger, more diverse economic base was needed as well as a revitalization of existing and previously sound businesses. There was a caution expressed that in this process of development, the quality of life be protected. Tourism was seen as an important part of the broader concern for economic stability

in the Scenic Byway 12 corridor region, but other areas of economic growth were also stressed. Consistent with this, the following strategies are recommended to enhance the quality of life and economic vitality of the corridor region.



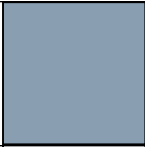
The primary purpose of this economic development section will be to create a consistency with the economic goals established in existing general plans of the agencies and communities

in the corridor, and the input from public meetings held in conjunction with this CMP. In this effort, the following principles are drawn from the mission statements of both Garfield and Wayne Counties:

- *Value the unique heritage and resulting values that have created current customs, culture, and quality of life.*
- *Deter activities that detract from these values.*
- *Maintain and improve basic services and infrastructure.*
- *Foster unique, cooperative, progressive, prosperous, and growing communities.*
- *Retain and expand traditional businesses and industries.*
- *Protect and improve ranching and agricultural opportunities.*
- *Attract new industries that are consistent with this mission.*
- *Promote tourism.*

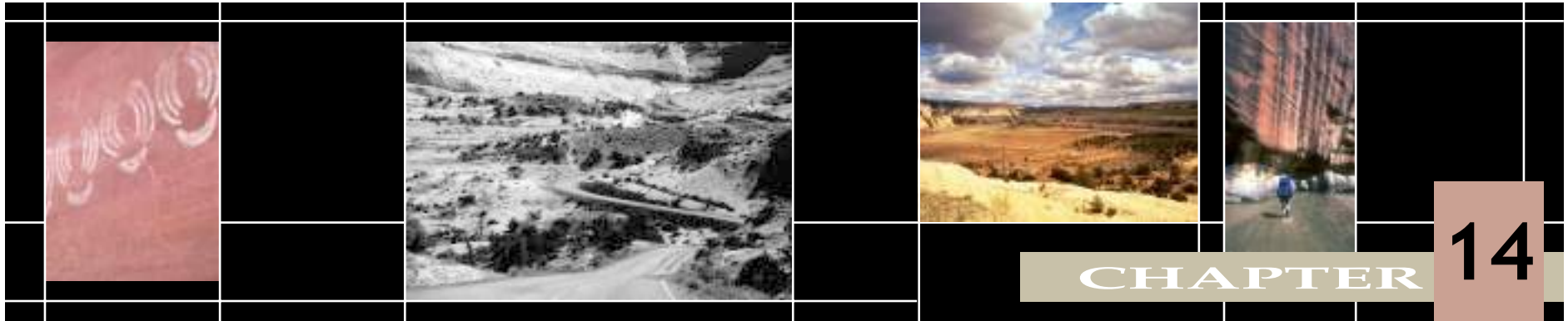


-Commercial core of Tropic, Utah
on Scenic Byway 12.

Economic Development Strategies

Encourage the establishment of a working business development committee, made up of business and community leaders, that works together in creating new primary jobs and economic stability within the corridor. The CMP will enhance the quality of life and economic vitality of the local communities by supporting and, where applicable, enhancing Garfield and Wayne Counties individual Economic Development Plans.



Tourism Development Plan

Tourism is a major source of economic vitality to the state of Utah and within the Scenic Byway Corridor. Many rural communities, in particular, rely on the economic benefits derived from tourism and travel related activities.

Tourism can represent an economic development alternative for communities in addition to agribusiness and natural extraction industries. Increasing the economic benefits from tourism to rural communities can represent an important part of a community's economic development strategy.

Rural tourism appeals to travelers seeking some type of experiential tourism product such as auto touring, birding, nature tourism and cultural and heritage tourism. While rural areas often serve as the backdrop for these types of natural resource and cultural/heritage activities, the rural stakeholders do not always derive direct financial benefits. However, through careful tourism development and focused marketing strategies, rural areas can increase the traveler's length of stay and the amount of traveler spending.

Tourism Development Goals

- *Increase consumer awareness of the area.*
- *Increase length of stay, thereby creating destination travelers.*
- *Increase tour operator and travel agent awareness of the area.*
- *Promote the area within the existing infrastructure with the Utah Travel Council, the Grand Circle Association, the Utah Heritage Highway 89 - Boulder Loop.*
- *Continue to capitalize on the media coverage of the 2002 Winter Olympic Games in Salt Lake City.*

Tourism Development Strategies

- *Encourage development of a full range of accommodations and facilities.*
- *Encourage development of evening activities.*
- *Encourage additional cultural activities.*
- *Develop opportunities for destination travelers and "windshield tourists".*

Existing Visitor Services

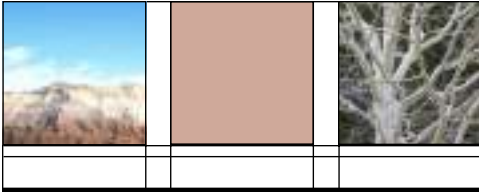
Along the corridor, travelers may choose from a wide variety of services to include:

Accommodations: motels, hotels, bed & breakfast, inns, home-stays, lodges, private & public campgrounds and RV parks

Restaurants: café, home-style, fine-dining, fast-food, drive-ins, specialty

Shopping: art galleries, heritage shops, specialty stores, souvenirs, hand-made/local arts & crafts, bookstores, fly shops, sporting goods, jewelry shops

Traveler Services: Banks/ATM's, grocery stores, convenience stores, beauty salons, emergency/health services, service stations, towing services, auto repair shops, sports equipment rentals, pet boarding



Existing Promotion Efforts

Garfield and Wayne Counties recognized the significance of local tourism organizations many years ago, due to its importance as an economic development tool. Garfield and Wayne Counties each have operating divisions of county government, which are responsible for tourism marketing and promotion efforts. Both county Travel Councils receive their funding through a portion of collection of Transient Room Tax and a Restaurant Tax. A majority of this funding is used on marketing and promotional efforts.

Both Travel Councils engage in the following marketing and promotional activities:

- *Produce materials/brochures highlighting attractions and services available within the county.*
- *Operate visitor centers to enhance tourist visits/ educate the traveling public about the various things to see and do in the area.*
- *Host web sites to assist the tourist with making plans to visit the area. Web sites include links to the attractions in the area such as the national parks and monuments, the BLM and the National Forests, as well as links to the private sector services and attractions.*
- *Participate in various tourism trade shows, promoting the area to tour operators, AAA counselors, travel agents and consumers.*

- *Conduct familiarization tours for both the tourism trade as well as the media.*
- *Coordinate and cooperate with regional and state tourism organizations, recognizing that tourists travel to a region and a destination, not just a county.*
- *Advertise in select publications.*
- *Participate in the Utah National Park Cooperative program, highlighting Utah's five national parks and promoting the route from Zion, Bryce, Capitol Reef, Canyonlands and Arches National Parks.*



-Lower Calf Creek Falls from cliffs above.



-Bryce Canyon National Park hoodoos aglow at sunrise.



-View across Escalante Canyon to
Aquarius Plateau.

Scenic Byway 12 Marketing Plan

The Scenic Byway 12 marketing plan is intended to increase awareness of the byway as a destination and to enhance the area economies via the tourist activities along the corridor. The following lists detail the recommended strategies and actions for accomplishing this task.

Promotion Strategies

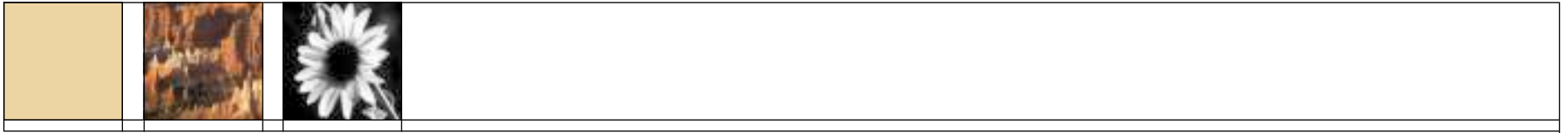
- A. Develop itineraries and package opportunities to encourage tour groups to use the recreation, services, and activities along the corridor, creating a destination and retaining the consumer for a longer period of time.
- B. Increase awareness of Scenic Byway 12 by conducting familiarization tours for Utah Travel Council, visitor center staff, and related government agencies to improve customer service and quality of information to extend length of stay of travelers.
- C. Produce effective materials in English and determine the need for specific International language materials.
- D. Promote off-season visitation by developing a separate marketing plan to enlighten the visitor to the unique activities Scenic Byway 12 has to offer during the low visitation season.

Participation Strategies

- A. Participate fully in all marketing opportunities provided with national designation, to include brochures, web sites, maps, etc.
- B. Participate in international and domestic marketing and promotion campaigns produced by the Utah Travel Council, as well as other destination marketing organizations.
- C. Participate and coordinate with heritage oriented projects such as Utah Heritage Highway 89. Consider a separate committee to assist with awareness of heritage related businesses.

Research and Development Strategies

- A. Develop a marketing alliance.
- B. Research all opportunities to promote the Scenic Byway 12 brand. Consider a separate ad campaign utilizing the logo and brand of Scenic Byway 12.
- C. Support a study to determine traveler experience and economic impact along the corridor to develop travel patterns, spending figures, and activity participation, destination choices and length of stay patterns.
- D. Prioritize developing projects along the corridor to guarantee successful completion, and to ensure that projects are not competing for the same funding.



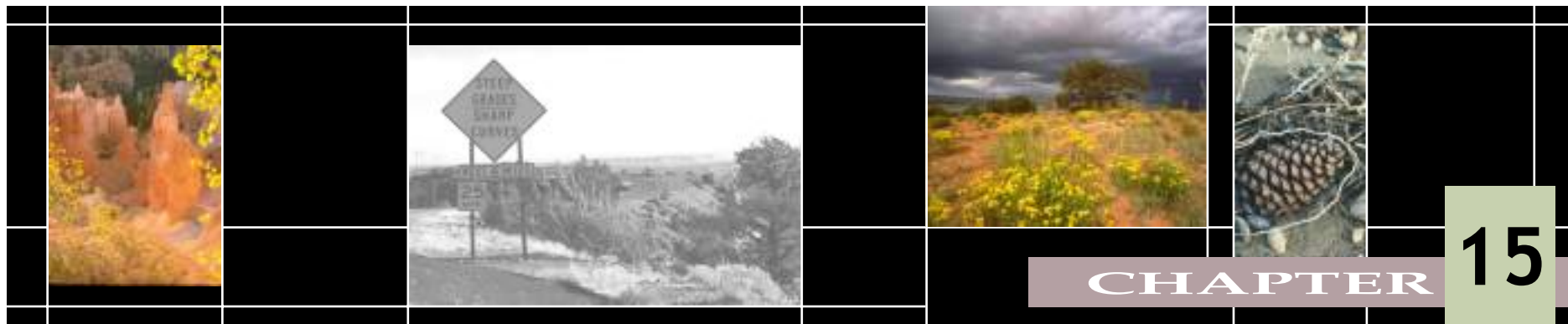
Promotion Actions

- A. Develop a logo and brand for Scenic Byway 12.
- B. Maintain and enhance the existing Scenic Byway 12 brochure.
- C. Generate press releases through Scenic Byway 12 committee and distribute to local and national media.
- D. Conduct familiarization tours for media (electronic & print) and tourism trade (AAA counselors, tour operators, and travel agents) and the domestic and international markets.
- E. Conduct hospitality-training program for front line employees throughout the Scenic Byway 12 corridor to provide optimum customer service.

corridor (hiking, biking, 4-wheel drive, horseback riding trails, cross-country skiing, snowshoeing, snowmobile trails, etc.).

Research and Development Actions

- A. Research and develop a web site for Scenic Byway 12. Include accommodations, services, restaurants, recreation, coming attractions, and links to assist the traveler in vacation planning, all translated into other languages.
- B. Research, and determine, if feasible, developing a videotape or CD-ROM for marketing to individual travelers and the tourism trade.
- C. Research and determine, if feasible, developing collateral materials which provide detailed information on activities throughout the



Signage Plan

Existing Signage

In general, the majority of the signage along Scenic Byway 12, including outdoor advertising, directional, and safety signs, is located near the

junctions with other highways and prior to towns and major attractions. The proliferation of signage is greatest in the stretch of byway from the U.S. 89 junction to the intersection with State Road 63, which leads to Bryce Canyon National Park. The

stretch of byway with the least amount of signage is from east of Henrieville to west of Escalante.


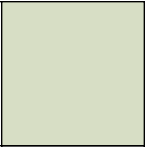

Outdoor Advertising Signage

Outdoor advertising signage is more commonly referred to as billboards. Along Scenic Byway 12 there are sections where outdoor advertising signage is in place. These signs range in size from relatively small to standard full-size billboards. In some instances these structures block the view to intrinsic qualities contained in this CMP as well as cause visual clutter.

One of the provisions of the State Scenic Byway program is that no new off-site advertising signage is to be erected. Since Scenic Byway 12's designation in 1990 as a State Scenic Byway, UDOT has had a mandate to control outdoor advertising and has a plan in place for doing so. Additionally, each city along Scenic Byway 12 has adopted sign ordinances that control signage within their boundaries. Garfield and Wayne Counties also have zoning ordinances in place that address appropriate sign controls in the unincorporated areas along Scenic Byway 12.



*-Dramatic geologic layers as seen by Scenic Byway 12
between Tropic and Cannonville, Utah.*

Off-site Outdoor Advertising Actions

Correction of those signs that do not comply with present zoning ordinances and state guidelines along Scenic Byway 12 will be encouraged according to the provisions of the local zoning ordinances and state laws. In some cases, signs that have been erected without authorization will need to be removed. Other corrective actions will be developed and encouraged to address those signs that have existed prior to the implementation of this CMP that are not consistent with this plan.

Highway Signage

Signage along highways follow the Manual Uniform Traffic Control Devices (MUTCD) for standards regarding size and color. The following is a brief overview of some of the commonly used signage color standards.

- *Directional signage* – GREEN – *mileage to next city, etc.*
- *Regulatory* - WHITE - *speed limits, use of lanes, etc.*
- *Service signage* – BLUE – *RV parks, gas, lodging, etc.*
- *Recreational and Point of Interest signage* – BROWN – *parks, campgrounds, trailheads, etc.*

- *Warning signage* – YELLOW – *sharp curves, pedestrian crossings, etc.*

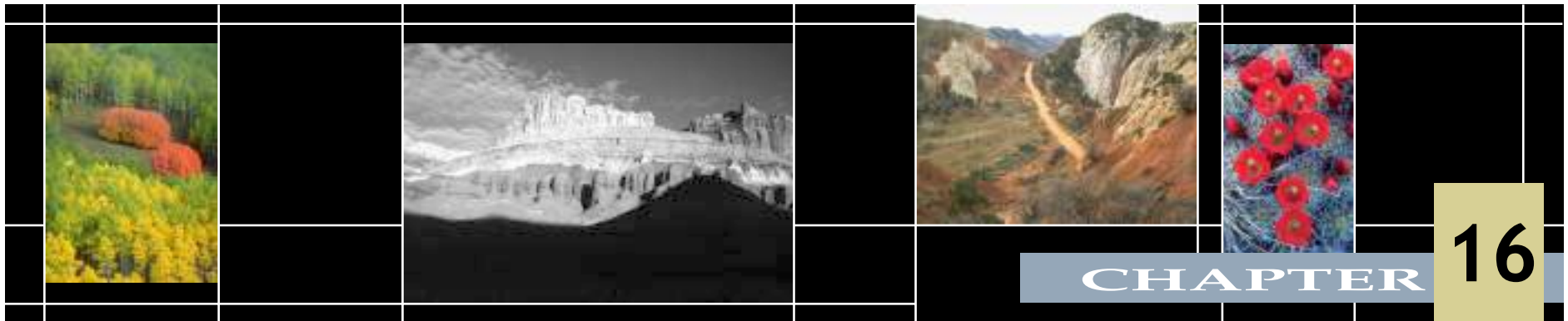
Along some sections of the byway there are possibly more informational signs than are necessary. Also, some signage is not color-coded consistently with standards or even with other similar signs along the byway. For example, some trailhead signage is green and not brown. Another signage issue to be addressed is how pullout and overlook signage should be formatted. In some instances signage directs to travelers to “scenic pullouts” that are actually “point of interest” waysides.

Additional Signage Actions

A comprehensive sign plan will be produced to determine if and where new signage is needed, to consolidate and remove extraneous signs, and to reduce the visual clutter they cause. This plan should also address consistency in design, style, materials, wording, and color.

Evaluation of Sign Plans

This CMP encourages the implementation of these plans in a manner consistent with the goals and objectives herein. A report of progress in this area will be made annually to ensure that the goals are being met.



Implementation, Evaluation and Monitoring

Implementation

The Counties, State and Federal agencies and all of the communities along Scenic Byway 12 presently have adopted general plans, and zoning ordinances to address land use needs. These existing management plans and ordinances will be the mechanism through which this CMP will be implemented.

Design Review Process

Existing developments along Scenic Byway 12 that are in need of enhancement will be identified and placed on a priority list for improvement, consistent with the goals of the County and City General Plans and the CMP. The counties and communities will work with private owners to create financial incentives and funding sources that will help the developments become more attractive and successful, as they redesign their developments to fit in with the overall scheme of the Scenic Byway 12 CMP.

As new developments are proposed they will be submitted to the Planning Commissions of the

Counties and Cities, as the case may be, for design review according to existing planning and zoning ordinances and policies. These new projects will receive correct public hearing notification. The new projects will be evaluated according to the goals and objectives of the local governments, existing planning documents as well as this Scenic Byway 12 CMP.

Evaluation and Monitoring

An annual report will be presented to the county commissions and Scenic Byway 12 partners regarding the responsibilities and progress of each of the public entities along Scenic Byway 12 as it relates to the goals and strategies of the CMP. Where areas of improvement

are identified, these entities will work together with the towns and local agencies in making the needed improvements.



-Autumn leaves in Calf Creek as it passes over eroded sandstone.

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Sharol Bernardo, *Private Business Owner*
Cindy Calbaum, *Dixie National Forest*
Tom Clark, *Capitol Reef National Park*
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Glossary

AADTC – Annual Average Daily Traffic Count

Agritainment - using agricultural procedures for economic development, i.e. farmers giving tours of corn mazes on their property.

AOG - Association of Governments

BLM - Bureau of Land Management

CCC - Civilian Conservation Corps

CMP - Corridor Management Plan

DNR - Department of Natural Resources

FHWA - Federal Highway Administration

GSENM - Grand Staircase-Escalante National Monument

ISTEA - Intermodal Surface Transportation Efficiency Act of 1991

NPS - National Park Service

RC&D - Rural Conservation and Development Council

UDOT - Utah Department of Transportation

USFS - United States Forest Service

WPA - Works Progress Administration

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Utah State University Study

One of the major objectives of the Mormon Pioneer Heritage Area is to promote, develop and market heritage products. Indeed, the predecessor of the Mormon Pioneer Heritage Area was the Utah Heritage Products Alliance. This entity was formed in 1999 under the auspices of the Utah Department of Community and Economic Development (now the Utah Dept. of Community and Culture and the Governor's Office of Economic Development) with special support coming from the Utah Division of State History. In October, 2000, the Utah Heritage Highway 89 Alliance made the decision to expand the heritage products emphasis and include all aspects of heritage and culture. This gave rise to the Mormon Pioneer Heritage Area. The added dimensions undertaken by the Alliance were not meant to detract from the importance of the heritage products component. The significance of products and the artists, artisans and crafters who create them was underscored in 2003, when the artisans and crafters along Heritage Highway 89 received a Best of State Award. Thus, it is very important for the General Management Plan to place heritage products and their development and promotion at the forefront of the General Management Plan. The guidelines and analysis that follow constitute the Plan's heritage products component.

GUIDELINES FOR THE DEVELOPMENT AND COORDINATION OF THE CRAFT INDUSTRY WITHIN THE UTAH HERITAGE HIGHWAY 89 CORRIDOR

Overview

This document is a report of observations, guidelines and recommendations for the further development and coordination of the craft industry associated with the Utah Heritage Highway 89, which is currently part of the mission of the Utah Heritage Highway 89 Alliance, here after referred to as the Alliance. The Alliance was first commissioned as the Utah Heritage Products Alliance and the organization and structure was primarily designed to serve the needs of artisans, crafters and shops along the designated Heritage Highway 89. The main function in the charter mission was to help market the crafts produced within the Heritage Highway 89 Corridor. This initial role was financed by startup financing from State of Utah sources and funding from dues of those members of the Alliance. This function has broadened to at least a coordinating role and perhaps a more involved role in economic development in the Corridor involved with the crafts, tourism, and other activities to help further the purpose of the Heritage Highway concept for promoting local economic development. The organization is at a juncture where a hard look at its direction and role in the area needs investigation. The

coordination role perhaps needs realignment and emphasis. Decisions need to be made on the direction that the craft industry in the area must take to maintain viability and to promote crafts as an element of economic development in the area. The intent of the Heritage Highway designation is to pool resources and businesses together in order to enhance economic activity in the area and associate this development with the heritage of the area.

The initial effort to develop the Utah Heritage Highway was put forth by the Department of Community and Economic Development (DCED) of the State of Utah. Pro bona legal services to establish an organization to coordinate the activities, set up an organized board membership, set up loan services, and provide advisory services for the Heritage Highway were arranged for by the DCED. A \$30,000 EDA grant and the first \$50,000 was secured through the efforts of the DCED. A subsequent \$200,000 from the State Legislature to support the organization's operations was then secured. The DCED along with the Utah State University Extension Services has played a significant role in the effort to promote the Highway Corridor and to receive federal heritage corridor status.

This report is not a full feasibility study of directions to take and definition of the role of the Alliance. Rather, it is a report of some observations, positive and negative, on the craft industry and its capability for economic development, and some suggestions on moving ahead with some strategies and the explanation of those strategies. There is reference to an earlier study and survey completed by Gary Anderson of the Utah State Extension Service and it is recommended that leaders in the area review that report as well as information provided here and other craft industry and tourism studies. This report is prepared by the cooperative effort of Karen Biers and DeeVon Bailey of the Utah Extension Service and respectively of the Department of Human Environments and the Department of Economics at Utah State University, and T. F. Glover of the Department of Economics, Utah State University. Much of the concern about carrying out economic development and coordinating this activity revolves around financial issues and the funding of specific initiatives and strategies to move the Alliance, crafters and tourism in the Heritage 89 Corridor forward. Therefore parts of the report are devoted to financial issues. In particular, Ed Meyer of the Governor's Rural Partnership Office in the Utah Department of Community and Economic Development took on the assignment of developing information and making recommendations on revolving loan funds. His report is a separate section of the main report.

Throughout the report there are several references to websites and their URLs that contain various elements of information that would be useful for those involved in the leadership and coordinating roles within the Heritage Highway 89 Corridor and the crafters and businesses to review.

At the outset, the following are recommended for obtaining an update on trends in the craft business and different business aspects that would be helpful to the crafter and the Alliance. Citing of World Wide Web sites do not indicate an endorsement by Utah State University Extension:

<http://artsandcrafts.about.com/library/>
www.artistsregister.com/opportunities.phtml
www.insiders.com/ncmnts/main-arts4.htm

Assistance can be obtained through Karen Biers of Utah State Extension Services by email at:

karenb@ext.usu.edu

Other sites on organization and funding include:

<http://www.nado.org/edfs/index.html>,
www.niahtcats.com/sales/free.html (also includes guidelines and pitfalls of initiating e-commerce).

Some government sites on economic development and financial issues are U. S. Department of Agriculture and Small Business Administration sites:

www.rurdev.usda.gov/rbs/busp/irp.htm
<http://www.sba.gov/financing/frmicro.html>
<http://www.rurdev.usda.gov/rbs/busp/redl.htm>
http://www.rurdev.usda.gov/rbs/busp/b&i_dir.htm

Help on coordination can be found at:

<http://www.dced.state.ut.us/pioneer/>
<http://history.utah.org/httoolkit/>

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Summary of Observations, Strategies, and Recommendations

THE ROLE OF GOVERNMENT IN THE HERITAGE HIGHWAY 89 CORRIDOR

The principal role of government aside from the management of public resources, revenues, and regulatory functions within the communities of the Highway 89 Corridor is to assist in economic development and maintenance of the local economy.

State Agencies such as the Department of Community and Economic Development (DCED), Department of Agriculture, and Department of Natural Resources are the arms of state government in extending assistance. It is particularly the mission of the DCED to help local communities and county level governments in the initiation of economic development projects through economic development advice and possible funding dimensions. Utah State University Extension Service provides expertise and advising services in the areas of community economic development business management strategies and the craft industry. The main local government associations with economic development include the county government and multi-county regional government agencies. Local community and economic development involves federal agencies as well such as the U.S. Forest Service and other agencies of the U.S. Department of Agriculture, the U.S. Department of Commerce, the U.S. Department of Energy, and the U.S. Department of Commerce. For this particular Corridor, the National Park Service is certainly an important cooperating agency in the development of tourism and linking tourism to heritage products.

In December of 2000, Utah Governor Mike Leavitt announced an increased commitment on the part of the State of Utah in stimulating the creation of state heritage areas and corridors. These heritage designations were made in order to develop a theme around which tourism, small business development, the pooling of resources and economic development, and common local community goals could revolve with the initial assistance facilitation of state government. One of the thrusts of the heritage area activity is to stimulate tourism as a means of economic development and to engage the visitor to the area in a participatory and educational experience. This type of activity is sometime been termed "value-added tourism." It should be remembered, however, that state agencies only have the ability to provide possible grants and/or assistance in moving these heritage areas forward as the State Legislature provides funding for such purposes. The DCED funds are dedicated to specific purposes approved by the Legislature. The Legislature has not provided ongoing funding to support heritage efforts to this point. If the Alliance is desirous of more focus of the DCED in funding and technical assistance, then members need to take the initiative to contact Legislators about the needs for the development of this particular heritage corridor.

Government can be of assistance in economic development as people develop that purpose for the mission of government and are willing to devote taxes and associated public revenues for that purpose. However, government budgets can only stretch to a multitude of purposes within limits. Since these limitations exist, and since it is the crafters who are the artisans, the entrepreneurs, the people with the ideas, it is recommended that a local ownership and responsibility continue to develop in the area coupled with a continued search for technical assistance and start-up capital in order to support that purpose.

THE ROLE OF THE UTAH HERITAGE HIGHWAY 89 ALLIANCE

- The Alliance has several goals set forth for its operation in the Highway 89 Corridor in its mission statement. These goals take the Alliance all the way from a coordinating body to actual craft production, financing and marketing/promotion roles. The objectives of what is to be achieved in the Corridor need to be identified and then the actual operational role of the Alliance needs to be determined. This may mean that a new priority of goals and objectives needs to be conceived and drafted.
- It is recommended that the Alliance take on the responsibility of coordinating and promoting the local ownership of economic development in the area, which has been defined in the objectives and goal statements drafted for the operation of the Alliance. Initially, the economic development direction that has been given priority is the development of the craft and tourism sectors and their links in economic development.
- The reason of being of an organization such as the Alliance is the power to pool resources in the Corridor, or from other locations and economic sectors, in order to finance the initiation of economic activity, lower costs of production, input use, and service delivery; and to efficiently develop and promote markets for products. The Alliance should be able achieve economies of scale in some or all of these functions. This is the same reason for the existence of the cooperative movement in the Corridor. Therefore, these roles are going to have to be sorted out so that they are not competing and inefficient efforts.
- Various craft and tourism organizations in the U.S. and Canada operate on different staffing and budget levels ranging from as low as \$7,000 and as high as several millions of dollars; and with minimal paid staff and reliance on volunteers to several professional staff persons. There are several options that the Alliance could pursue from bringing in a craft professional volunteer who is connected to potential customers to run promotion, jurying and initiating of a craft show to staffing the Alliance to operate the coordinating and promotion of both the craft sector and the other parts of the tourism operations.
- Information from other organizations suggests that taking the option of staffing the Alliance to handle; a) the coordination and promotion of both the craft and tourism sectors; b) purchase of key inputs such as market segment customer lists; c) establishing a craft center/Alliance headquarters; and d) sponsoring a specific craft show at break-even level, would at minimum require a staff of 3 persons. One person would devote time to crafts. Another person would devote time to tourism, and a third would be appointed as an administrative assistant with

clerical and accounting duties. This level of activity is estimated to cost approximately \$120,000 annually (static total not including growth in costs) if a debt is serviced for a building or a building restoration without donations or grants for any parts of the operation. With this cost being financed by dues, and assuming a base of 200 firms (craft and tourist related firms) paying equal dues; the dues would be \$600 annually. Of course, there are other higher and lower level options, and this option can be compared with current levels of effort and expense. If, for example, the craft show in this option above is added as expense, then the cost is \$160,000 with dues being \$800 per firm, but with breaks on booth charges and other set-up costs. A volunteer board would serve as an oversight and industry representation body.

- To the extent the Alliance chooses to deepen its role, the following functions/operations could be undertaken by the Alliance among other functions: a) provide a link between businesses in the Corridor; b) interpret and link the benefits of the Community Reinvestment Act to the Corridor; c) initiate, plan and sponsor events in the Corridor, including craft events; d) provide craft production and sales information and strategy; e) determine the resources that various groups are willing to commit to marketing and production strategy; f) sponsor educational programs for the craft and tourism sectors; and g) purchase or sponsor and finance the purchase of key inputs for the craft and tourism industries within the Corridor.

SOME OBSERVATIONS ON THE CRAFT INDUSTRY AND TOURISM

- Information from various organizations within the U.S. and Canada suggests that the craft industry is a mixture of what could be called the development of craft, meaning handmade items representative of an historical era or location and culture, items of typical tourist interest relating to a public park location, and gift items.
- Certain craft fairs are known for artisans and craft representations that entered in these fairs. The customers of specific market segments get notification of such shows and make plans to attend specifically to add to lines of crafts that they have previously purchased or to review and purchase new lines representing history/culture of which they do not presently possess in their collections.

Craft fair promotion budgets usually run from \$3,000 to over \$8,000. Promotion and market share for a specific craft media and/or high-end craft within any media generally are usually directly related. Craft shows within Canada and the U.S. cost in the range of \$25,000 to \$350,000 depending on the media entry, entertainment and associated celebration activity. Combined event day-craft fair operations cost from \$20,000 to

\$600,000. The costs for a booth at craft shows run on average in a range of \$95 - \$450. Gift shows are much different display and marketing operations than strict craft fair events. There is both direct marketing and representative marketing at the craft shows and the gift shows.

Approximately 70 percent of tourists buying purchase T-shirts, sweatshirts, postcards, booklets and maps with pictures of the particular location or event they are visiting. This is the category, aside from food and local overnight room rental, on which tourists spend the most money. Limited information suggests that approximately 55 percent of tourists spend the most money on these items. Approximately 30 percent of tourists buying purchase crafts that add to a collection. So there is a market for producing crafts in sets or a base item followed by subsequent supplementary items. The limited information that was gathered suggests that most tourist items purchased in the Corridor area other than food, housing, recreation gear and rental fall in the price range of \$10 to \$45.

Strategies/Initiatives for the Craft Industry: Elements, Cost Structure, and Role of the Alliance

STRATEGY 1: A JURIED CRAFT SHOW SPONSORED BY THE ALLIANCE

It is recommended that a separate juried craft show be sponsored by the Alliance, to be held preferably during the summer season and possibly being conducted at a similar time as a certain event day celebration. The scale level of such a show is recommended to be in the neighborhood of \$40,000, with approximately 15 percent of that cost going into promotion, brochures and customer contact outside of the Corridor. There are alternative means of financing such an event and its promotion. Likewise, there are alternative strategies for initiating the event, including promotion and setup by a professional who has customer contacts.

It is recommended that the initial purpose of such an event be focused on a retail show within the Corridor. Wholesale shows are usually well established and are primarily located in larger urban communities. The retail show requires the least experience and usually encounters less risk than the wholesale show. However, if a professional show organizer and promoter with wholesale customer contacts were to initiate the show, then a mix of mainly retail and some wholesale operations could take place.

The initial two seasons of the show could be used to promote the expansion of the craft industry into the Heritage theme chosen and also move to the high margin craft type.

Most promoters and craft councils suggest a threshold of sales generated from the show be 8 to 10 times the cost of the show in order to consider the business potential of the function a success. If the initial show actually turns out to be a breakeven function, then it

needs to generate the 10 fold sales over cost for each craft entrant in order to be considered a success in generating sustaining sales. The current \$15,000 budget for a combined event day-craft fair should generate from \$ 120,000 to \$150,000. The more focused \$40,000 budget should generate from \$320,000 to \$400,000 in sales.

STRATEGY 2: PRODUCT DIFFERENTIATION:

THE JURIED CRAFT AND THE DEVELOPMENT OF A HERITAGE THEME

It is recommended that the focus of the craft product differentiation be to promote and display the heritage theme but offer heritage/culture uniqueness (image) apart from other craft shows that are in existence, particularly in the U.S., in order to attract buyers from the specific targeted market segments including tourists. This uniqueness will also attract international buyers who purchase collectables or sets of collectables.

This is not an indictment of the production and sale of crafts and gift items that meet the general demand of the tourists that come into the area during National Park season, nor their quality. These items are marketed to a different market segment of tourist buyers. The juried craft is targeted to other market segments, which also may include tourists specifically demanding certain unique cultural or historic crafts. The juried differentiation is also designed to target repeated purchases from these other market segments.

There are several skillfully developed crafts being produced running the range from quilts, rugs, pottery, heritage utensils, dolls, jewelry, and other handmade items. They all could, or currently do, represent an era of heritage and culture that is associated with the area, its settlement, the people and the natural beauties of the Corridor. Several craft items already have a differentiated reputation [that is recognized by particular buyers with specific preferences associated with certain craft market segments. These reputations should be maintained and promoted at the same time that the items also become differentiated further in the heritage dimension.

The theme should be well thought out and then documented. Moreover, most craft items should be tied to the heritage theme by documentation. This two -tiered documentation then provides the basis for the jury process and the promotion of the particular craft differentiation to specific market segments.

The question to be resolved is, what particular heritage theme should be followed? The current hangtags seem to indicate a mixed theme of information for tourists (what and who is along highway 89) with a reference as to how to find out more, and a reference to fine craftsmanship and "a piece of history", and then a symbolism promotion of Utah heritage and highway 89. The crafters and Alliance members need to decide the "image" that is -()in" to be promoted and whether the craft image can be coupled with encouraging tourism or should be separated from specific promotion of tourism by the Alliance.

STRATEGY 3: PRICING

Unless the collective approach to pricing through coordination of cooperative marketing or through a marketing function taken on by the Alliance is undertaken, the pricing of a portfolio of craft products will be set by the interactions in each market segment or by some attempt by the crafters to administer their own markup pricing depending on their understanding of the demand conditions that they face.

Crafts with relatively few substitutes in the craft industry will command a higher markup. The impact of the juried craft is product differentiation in order to price a portfolio of products with high markup. Crafts and gift items which are commonly found in various tourist areas command less markup.

If pricing is coordinated collectively, then it appears that a three-tier attribute price coordination strategy would be followed. The three general tiers include first, the \$20 - \$75 range items that most tourists are going to be purchasing and for which there is a long record of purchase. The second tier is the juried craft, which is the existing craft that would be priced considerably above the general tourist item. The third tier includes new crafts introduced that belong to the second group and for which market share is not yet established. The marketing literature would then generally suggest in these conditions that an increasing pricing path of initially selling at low prices, and then prices increase over time according to the craft cycle. The incremental level and timing of the increases in price are highly dependent on beginning market share and, in this case, the deepness of product differentiation. The strategy is that price increases as market share increases.

STRATEGY 4: CREDIT CARD ACCEPTANCE

Accepting credit card payments is very important for the craft business. It is probably a necessity in the current market.

Most problems for the small business in accepting credit card payments lie with the institutions that run the merchant accounts. The merchant account provider has the risk of payment if the business doesn't fulfill all the obligations to the credit card holder. The financial institution manages this risk by being selective about the issuance of the merchant accounts. There are some other services that allow credit card payments without opening a merchant account. The small business should investigate these options since they work with small start-up operations and they accept international merchants and intermediaries. But the fees and risks should also be weighed along with convenience.

STRATEGY 5: USE OF THE INTERNET

The number of persons in the United States with access to the Internet continues to increase and nearly 50 percent of the adults in this group purchase goods and services online. Online business to consumer sales is expected to reach \$163 billion in 2005. An increasing number of craftspeople and artisans are establishing a Web presence. A Web presence can increase the exposure to a larger number of buyers in niche markets.

Artisans/craftspeople have a variety of options for establishing a Web presence including: a) establishing a personalized Web site, b) joining a community based site, i.e., local Chamber of Commerce, c) joining an established craft Web site. If the Alliance determines that a group Web site is the best option, criteria need to be established to determine the type of products to be included on the site. The Alliance would need to determine what image they want to create with the site. A possible image for the site might be that it features products that are high quality, handmade, unique, heritage products. A group site would need to have a manager who keeps the site updated. Updates would need to be provided by the artisans/craftspeople.

The cost components of a Web site include the site design, domain registration, and the Web space. The costs will vary based on who designs the page, what is included on the page, and who maintains the site. In addition, money will be needed to market the Web site. Results from a survey of craft producers indicate that there is a positive correlation between the amount of money spent promoting a Web site and the amount of money generated from the site.

Financial Considerations and the Revolving Loan Fund

Though the Utah Heritage Highway 89 Alliance could likely identify grants to fund the costs associated with running its own revolving loan fund, they lack the expertise to do so. Although such expertise could be hired or developed, there is no need to do so as long as existing RLFs with years of expertise meet the needs of heritage entrepreneurs.

The role of the Utah Heritage Highway 89 Alliance should be to establish relationships with all existing revolving loan funds (RLFs) if such relationships do not already exist and market the resources of these organizations to Utah Heritage Highway heritage businesses.

If existing RLFs need additional funding to meet the needs of heritage entrepreneurs, the Utah Heritage Highway 89 Alliance should partner with these organizations to secure such funding. Possible funding sources are identified later in this analysis.

The Utah Heritage Highway 89 Alliance should assume a pro-active role in identifying and pursuing the financial resources to establish a micro enterprise loan fund dedicated to heritage entrepreneurs.

The Grameen Model, while innovative, is too exotic and administratively complex for a dispersed, conservative rural constituency. The Utah Heritage Highway 89 Alliance should pursue a traditional micro-loan fund (MLF) model such as the Utah Micro-enterprise Loan Fund that fits better with the needs of its constituency and the capabilities of potential administrative partners.

The Utah Heritage Highway 89 Alliance should control the focus and lending criteria of the MLF. Consideration should be given to subcontracting with organizations such as the Utah Micro-enterprise Loan Fund, the Deseret Certified Development Company or the Six-County or Five-County Associations of Governments for the administration of the fund.

To take advantage of economies of scale, the Utah Heritage Highway 89 Alliance should consider partnering with other heritage tourism organizations in the state to establish a single, statewide heritage-based MLF.

ROLE OF GOVERNMENT IN THE HERITAGE HIGHWAY 89 CORRIDOR

The principal role of government aside from the management of public resources and revenues within the communities of the Highway 89 Corridor is economic development and assisting in the maintenance of the local economy. The government of the State of Utah also has a role in assisting local communities with maintaining economic well-being and developing economic growth strategies. State agencies such as the Department of Community and Economic Development (DCED), Department of Agriculture, and Department of Natural Resources are the arms of state government in extending this assistance. It is particularly the mission of the DCED to help local communities and county level governments in the initiation of economic development projects either through initial funding aid, economic development advice, or through coordinating various services that can be brought to bear in the economic development process.

There are six of Utah's twenty-nine counties and several local communities that are involved in the south highway 89 Corridor. The coordinating role of government of all these local governments would fall to the state or a combined coordination to achieve specific objectives via a designated regional governing agency. In December of 2000, Utah Governor Mike Leavitt announced an increased commitment on the part of the State of Utah in stimulating the creation of state heritage areas and corridors. These heritage designations were made in order to develop a theme around which tourism, small business development, the pooling of resources and economic development, and common local community goals could revolve with the initial assistance facilitation of state government. One of the thrusts of the heritage area activity is to stimulate tourism as a means of economic development and to engage the visitor to the area in a participatory and educational experience. This type of activity is sometime been termed "value-added

tourism." This is the intent of the heritage area now organized as the Heritage Highway 89 Corridor.

It needs to be recognized that because of this mission there are several economic development goals that derive there from in addition to supporting the production and marketing of heritage crafts. It is true that the stimulation of tourism also stimulates the sale of craft products but there are other economic activities that need assistance and resources from state and local government entities to maintain and further develop the economic base in the area. We only point out here that such a mission could spread such assistance and resources thinly amongst competing economic develop activity needs. To this point, the Utah Legislature has not provided an ongoing budget to support heritage efforts in the State. DCED funds are dedicated to specific purposes approved by the Legislature and, as such, are currently limited in scope.

This report concentrates on the possible strategies that could be developed and carried out by the Utah Heritage Highway 89 Alliance, craft cooperatives and craft producer/marketers in enhancing income from craft product production and sales. However, there is a link in economic development between the craft industry, motel industry, other tourism attractions and other businesses within the Corridor. It is recommended that these links be strengthened and coordination between these groups be enhanced in order to bring about a stronger local ownership and responsibility for the economic future of the Corridor and/or its expansion. Therefore, the role of government assistance is presented with this intent, and economic feasibility, in mind. It is suggested that the role of government in this case could be focused on the following.

1. The provision of seed funding and economic development funding and expertise. The main local government link to tourism is the county level transient room tax revenues. There are six counties involved in the Corridor, as it is now constituted. There needs to be increased communication and coordination of the industries within the Corridor and country level government in order to assist economic development. There needs to be communication from local people to the Legislators about economic development assistance in the area as well.
2. The coordination and facilitation of initial efforts to bring the craft producers (and marketers) together to recognize similar economic development goals and to assist these individuals and business in the effort to pool resources in order to lower input and promotion costs and to penetrate craft markets.
3. Coordinate efforts to identify additional resources and sources of information that can be used to promote the production and sale of craft products. Here, the Utah State University Extension Service can provide a key informational role. DCED

assistance could also be important in this resource and information identification effort.

4. Provide or help producers find marketing support or key input acquisition and information. Again, the Utah State University Extension Service can be a key advisory and information source in this area of need.

a) Provision of seed funding and expertise. There are considerable risks involved in taking the current levels of producing and marketing crafts in the Corridor to another level. Business expansion always involves financial risk. Government economic development funding can be used to either subsidize initial efforts to expand or to partially guarantee lender funding of these efforts. For example, if it is deemed feasible to initiate a craft show within the Corridor that is expanded beyond the current connection to certain event days, negotiation with government to subsidize this initial first expanded show could be worked out within limits of available seed funds that are available from economic development agencies. Government agencies could facilitate financing partnerships of such expanded craft shows amongst business, lenders, and foundations. Such agencies could subsidize initial acquisition of customer or a variety of craft market segment lists from major craft magazine publishers, catalog marketers, or other craft organizations. Funding could be made available to develop expanded promotion of the craft industry and the basis of the heritage craft sector in the Corridor, or to subsidize the connection of the promotion efforts of the producers (via the Utah Heritage Highway 89 Alliance or cooperatives in the Corridor) to regional, national and possibly international craft promotion efforts and links. Government funding could be used to set up initial revolving loan funding to producers and to marketing efforts or to provide a guarantee mechanism to facilitate the set up of a revolving loan fund with a local lender. Of course, these financial links should be made following received law and without conflicts of interests or contractual arrangements that would lead to conflicts of interest.

b) Coordination and facilitation of initial economic development efforts. Government agencies could take the role of supplying financial advice and coordinating agency funding. Additionally, these agencies could provide expertise in facilitating the contact to agencies, the details of setting up funding sources and the regulation of the same, in bringing about cost reductions in the initial economic development project phases. Contact could be made with lenders and community leaders to coordinate such things as establishing merchant accounts to facilitate acceptance of credit

card purchases of crafts and establishing start-up funding or revolving loan funding.

c) Coordinate the effort to identify additional funding sources. The Department of Community and Economic Development is in a position, within limits as designated by approval and budgeted by the State Legislature, to provide assistance in identifying other state and federal sources of funding for economic development projects and specific projects that would be helpful to the craft industry. A person or persons could be appointed to coordinate such activities for the regional government in the area and the Alliance and point the Alliance to the opportunities and the pitfalls that present themselves. This role is important as well to being able to develop resources and expertise that can be called on to provide information on economic activity, markets, and financial considerations. Strategies for financing are covered separately in a later section of this report on revolving loan funds.

d) Support in marketing, input and information acquisition. The success of the craft industry and contact with tourism is dependent on successfully penetrating the market, identifying market segments, and lowering the cost of input and production. Government can help in this effort by partnering information acquisition and coordinating the pooling of resources in order capture cost economies. A point person within a development agency can also work effectively by sharing information and direction to a cooperative organization or the Alliance in marketing expertise, cost efficient inventory maintenance, and input acquisition. It is actually the Alliance or cooperative that has to carry out the strategy but sometimes needs direction from others with a broader outlook and information base. Networking is important in both marketing the product and sourcing the inputs. An agency such as the Community and Economic Development Department could assign expertise in this area to work with the artisans, sales organizations and producers in the Corridor. The Utah State University Extension Service currently provides advice and information to local communities and organization on economic development and craft production and marketing.

THE ROLE OF THE UTAH HERITAGE HIGHWAY 89 ALLIANCE

The major role of the Alliance is to provide the coordination, information and operational links between business of a diverse nature in the Corridor, the community interests and

government. The goals of the Alliance have been set forth in a General Work Plan document issued in 2001¹. These goals are:

5. To assist the existing heritage product industry along Highway 89 in enhancing and expanding their market worldwide.
6. To stimulate the development of additional heritage artisans and products, particularly in coordination with Utah State Extension Service.
7. To establish Utah's Heritage Highway (historic US 89) as the West's premier location for buying quality-made heritage products.
8. To provide experiences of Utah's heritage, especially through the effective use of print and electronic media.

The concept of the Alliance follows in concept the Utah Governor's increased commitment to bring about the creation of state heritage areas and corridors. The idea is to engage the tourist visitor in participatory and educational experiences relating to the heritage corridor. This model implies that small businesses including art shops, craft shops become an integral part of the tourist experience. But in addition, it is implied that these shops join with bed and breakfast and working ranches in offering this experience. There is an added mission to the Alliance in addition to coordinating the functions of the craft industry that is intended in the goals of the Alliance. When the Alliance was first initiated in 1998, it was established as the Utah Heritage Products Alliance, and the General Work Plan suggests the purpose of the Alliance is to develop and market Utah-made heritage products worldwide and through shops along Heritage Highway 89. It is now established as the Utah Heritage Highway 89 Alliance following the theme of the Governor's commitment to heritage corridors. The mission as the Alliance is now organized appears to be somewhat broader than the coordination of the production and sales of heritage crafts, however, since ostensibly the extension of purpose is to the value-added tourism model. The suggested implication is that production and sale of heritage crafts provides a stimulus for tourism and growth of tourism services in the highway 89 Corridor.

With the somewhat broader goals of the Alliance in mind, as explained above, it is suggested that the assistance and coordinating role of the Alliance could take on several dimensions briefly explained below if funding base is sufficient, or the Alliance could take on at least one or two of these activities as they are given priority and are sufficiently financed. There could be a considerable financial commitment on the part of the Alliance in addition to the coordinating role that needs to be considered as indicated in some of the

¹ Heritage Highway 89 Alliance. 2001. General Work Plan - 2001.

suggested roles the Alliance could take up. However, these areas of service suggest that the craft industry would need to move to a more intense production, financial, and marketing level in order to finance the Alliance to take on such things as certain promotion services, purchasing services, guarantees, etc. mentioned below as possible roles for the Alliance². It would need to be determined if the Alliance could lower costs in these functions by pooling resources and acting for a broader base of the craft industry relative to the existing cost conditions faced by the individual businesses. In a series of papers by Gary Anderson of the Utah State Extension Service outlining feasibility of the role of the Alliances, it was reported that there was not much support in the Corridor for substantial financial commitment via dues to the Alliance for several reasons, some involving a lack of understanding of what is involved in promotion and linking to both product and input markets in the craft industry, and others related to fear of cost escalation if the Alliance takes on certain roles. With this explanation in mind, a list of possible roles that the Alliance could take up for and behalf of the individual craft business is given below.

9. Provide a link between the businesses in the Corridor, including the craft business and artisans, and community interests and government agencies that might lend assistance in the maintenance and growth of the businesses and the economic development process in the Corridor. The Alliance also provides the coordinating role in interpreting and bringing the benefits of the Community Reinvestment Act to the Corridor. The purpose of the Act is to bring lenders into targeted development initiatives. This link may also involve the Alliance in the coordination of services for the local craft industry or even making arrangements for guarantees that lower the costs of certain services, such as the merchant accounts that facilitate craft business acceptance of credit card purchases, for example. More information on the Act is online at the Enterprise Foundation site <http://www.enterprisefoundation.org>. This latter role involves a considerable financial role and coordination between lenders, government agencies and the businesses. In this role, the Alliance needs to establish relationships with existing revolving loan funds and/or microfinance/micro enterprise loan funds and connect the resources of these organizations to the businesses and craft producers in the Corridor. The Alliance would be the coordinating arm to connect financing to the various economic development elements of the Corridor in addition to the craft industry. There are a number of organizations and training opportunities to which the Alliance could turn to develop this finance coordinating expertise. The economic development finance service of the National Association of

² Anderson, Gary L. 2001. Utah Heritage Highway "89" Alliance Feasibility Study.

Development Organizations is a good source of information and training and further detail of their programs can be found online at www.nado.org/edfs/index.html. Another is the National Development Council at www.ndc-online.org/training/pdc/courses.htm#ed405. A rural revolving loan fund is currently set up in the State of Utah and more information can be found online at the UTFC Financing Solutions site www.utfc.org. Microfinance arrangements are different than the revolving loan function but these alternatives could be pursued. More information on these and micro enterprise funding can be found at www.sba.gov/financing/microparticipants.html. More detailed information on financing is provided in a separate section of this report.

10. The Alliance is envisioned as initiating and even planning events, or coordinating the coupling of a more extended craft event with a community event during the tourist season within the Corridor. An alternative is to partner with craft show promoters and take on the role as sponsor, leaving the promotion and development of the event to the promoter, or to producers.
11. The Alliance could be directly responsible for the promotion of events and the craft industry in the Corridor. The Alliance could be involved in the coordination of or actual sponsoring of a craft catalog for the Corridor, website promotion and website collection of customer data, etc. A website is currently being maintained and done so at minimal cost. However, there are many dimensions of the use of the website that could be considered. They do involve additional cost for the Alliance or the producers being represented by the Alliance. This matter is discussed in a separate section of this report. Information from other organizations operating craft websites, electronic stores on the web, or catalogs suggests that such website operations would cost from \$6,000 -\$10,000 to set up and maintain.
12. The Alliance could be responsible for providing craft production and sales strategy information to the artisans and craft businesses. This would involve setting up a process of collecting marketing and input acquisition data, event activity calendars and finding information about craft events, registries, and market representatives in other regions, nationally, and internationally. The Alliance could take the responsibility to help the artisans and craft businesses to be registered on key craft event and promotional registries that are linked to World Wide Web page sites such as www.artistsregister.com/opportunities.phtml, for example, which advertises craft opportunities for the Western states. There are other registries as well and they link to other specific craft industry websites. In this role, the Alliance could also develop an information base containing marketing and craft production studies that have been completed by other organizations.

13. The Alliance could take the role of determining the resources that various groups in the Corridor are willing to commit to marketing and production strategy and how these groups view promotion of crafts that are developed for different market segments. The Alliance, in the role of representing different perspectives of the craft industry in the Corridor, could study ways that best use the limited resources in developing markets and lowering the costs of transactions and services that are to be made and acquired in the process of doing business.
14. The Alliance could sponsor educational programs for developing new crafts and maintaining ongoing marketing and production functions within the industry. It is suggested that educational programs be accomplished on a fee for service bases or through the Extension Service function as coordinated by the Alliance. More information on the possible Extension Service role can be obtained from Karen Biers by email at karenb@ext.usu.edu or by phone at (435) 797-1534 or 1533.
15. The Alliance is representative of several different craft and tourism-based businesses. In that role the Alliance could take on the responsibility of either directly financing or coordinating the financing and acquiring customer lists for the craft market segments in which the craft industry of the Corridor participates and those sectors of the craft market that are to be developed in the future. On the input side of the market, the Alliance could be the arm for the local craft industry in bargaining for cost economies in the purchase of inputs for a diverse set of artisans and craft businesses. This could extend to other interrelated businesses in the Corridor. This would expand the mission of the Alliance from a coordinating/information role to buyer or at least to a purchasing-negotiation commitment for the local area. It would extend the Alliance position into the role that the cooperative has in the area. A distinction would need to be made or defined between the existence of the cooperative and its contractual basis of doing business and the contractual basis of the Alliance doing business if this is to be the role of the Alliance. It may be that both types of organization cannot efficiently operate simultaneously and one or the other would be redundant. This would need to be investigated before the Alliance would decide to actually enter this purchasing business. The Alliance could take the coordinating role but point a pooled purchasing arm to financing such as explained in A above in order to facilitate the purchasing function.
16. In further deepening its role in the Corridor, the Alliance could establish a craft center, or take over that particular role that has existed under the craft cooperative movement and which has been projected for the future in other locations in the Corridor or outside of the Corridor. This action would have to be coordinated with the existing cooperative establishments. It would have to be determined if the Alliance could actually pool a greater resource base and lower costs of input

acquisition, marketing of products and promotion. Currently, it is projected that a craft center developed within the area would require approximately \$76,000 for acquisition of an historical building or the restoration of such a building with a debt service of approximately \$14,850 annually at current interest rate levels. There are funds from historical societies or micro-financing agencies that can be pursued in order to initiate such a center. The Alliance would have to take the initiative in developing the funding base. Cost information from other organizations suggests that taking the option of staffing the Alliance to handle; a) the coordination and promotion of both the craft and tourism sectors, b) purchase of key inputs such as market segment customer lists, c) establishing a craft center/Alliance headquarters, and d) sponsoring a specific craft show at break-even level (\$40,000), would at minimum require a staff of 3 persons. One person would devote time to crafts. Another person would devote time to tourism, and a third would be appointed as an administrative assistant with clerical and accounting duties. This level of activity is estimated to cost approximately \$120,000 annually (static total not including growth in costs) if a debt is serviced for a building or a building restoration without donations or grants for any parts of the operation. With this cost being financed by dues, and assuming a base of 200 firms (craft and tourist related firms) paying equal dues; the dues would be \$600 annually. Of course, there are other higher and lower level options, and this option can be compared with current levels of effort and expense. If, for example, the craft show in this option above is added as expense, then the cost is \$160,000 with dues being \$800 per firm, but with breaks on booth charges and other set-up costs. A volunteer board would serve as an oversight and industry representation body.

17. This scale of operations and role implies a considerable change in intensity of both the craft and tourism industries. Current combined event day-craft show operations rely heavily on government budgets and operate at around the \$15,000 level including promotion. Booth charges are \$65 for a one-day craft entry and \$100 for a one-day food booth entry. Power for craft and food sales are also handled by government budgets. In the more intense craft production and marketing mode, coupled with more intense promotion of tourism, the Alliance would have to rethink the area of coordination, which would probably have to expand beyond the businesses of the Highway 89 Corridor. Doubling the businesses paying dues to operate the Alliance would reduce dues if they were to be paid on an equal share bases, but the coordinating and promotional role of the Alliance would have to expand. Indeed, if a craft center were to be established, then the Alliance would have to look seriously at location choice. There is greater tourism traffic in the Lake Powell area than most centers within the southern Highway 89 Corridor. Tourism in Cedar City has been fairly steady in connection with the Shakespearean Festival. There could be further cooperation with the

- National Park Service in tourism promotion, possibly funding, and in developing a location for a craft center associated with national park visitation.
18. Of course, higher and lower scales of action could be undertaken than the initiative outlined above. At approximately \$95,000 annually, one person coordinating both the craft and tourism functions of the Alliance along with an administrative assistant and considerable outsourcing of accounting services could be established. Again, this includes debt service for a center, operations, and some acquisition of key inputs for the craft industry. If the Alliance relied almost completely on volunteers, outside funding for the specific Alliance craft show, but operated with an administrative assistance accountable to a volunteer board and executive committee of that board, then the costs is estimated to be approximately \$55,000. Again, certain key inputs, such as customer lists, could be purchased under the auspices of the Alliance. Using the 200 businesses as the divisor, the dues, if shared equally, would be running from \$475 down to \$275 depending on which of these less intensive scales of operation is chosen.
 19. Another issue that needs to be investigated is the location of craft sales closer to urban populations such as the Wasatch Front communities, or in Las Vegas. This positioning of sales definitely would be in competition with other craft sales efforts in these locations. In order to connect craft production and sales to tourism in the Highway 89 Corridor, production and sales would have to remain established in the Corridor while a sales expansion effort extended to these more urban locations. Such an effort could be counterproductive if the tourism was siphoned from the Corridor by giving access to heritage crafts in these urban areas. A specific marketing and tourism study would have to be developed before such an action would be undertaken.

SOME OBSERVATIONS ON THE CRAFT INDUSTRY AND TOURISM

A quick search of information and contacts were made with various craft organizations, craft/gift/historic fair organizations, and communities in the U.S. and Canada in order to develop some baseline information about the craft industry, cost elements of various craft initiatives and shows, tourism and the craft industry, and some advantages and disadvantages of alternative strategies to expanding or starting up a specific craft operation.³ This reporting is in no way an exhaustive coverage of the elements of the craft industry and the marketing, promotion and production functions within that industry.

³ Contacts were made and information gathered by Karen Biers and DeeVon Bailey of the Utah State Extension Services and T.F. Glover of the Department of Economics at Utah State University. Bailey also developed a report on cost information that he collected from various information, and this current report uses considerable information from that report, DeeVon Bailey. 2002. Potential Costs Associated With Different Types of Shows/Festivals. Paper, Department of Economics, Utah State University, Logan, Utah.

However, information below develops a perspective from which to develop a discussion of recommendations for the future development of craft production in the Highway 89 Corridor.

The Craft Industry

Information from various organizations within the U.S. and Canada suggests that the craft industry is a mixture of what could be called the development of craft, meaning handmade items representative of an historical era or location and culture, items of typical tourist interest relating to a public park location, and gift items. Some organizations have developed a mixture of these classes of products and others are successful at producing and promoting exclusive historical handmade crafts and still others concentrate in gift items that are mass produced for sale. Crafts, gifts and tourist items are associated with natural wonder locations, cultural identities, with historical organizations and themes, and events and attractions, some of which are historical/cultural events and others primarily entertainment events or amusement parks. The exclusive handmade craft is sold at a mixture of these events, but there are also more narrowly focused marketing channels for these items through craft/gift representatives, catalogs and particularly mainline craft catalogs, and some online marketing outlets. Much of the handmade craft traffic is generated by word of mouth within specific narrowly defined market segments particularly if the craft is a representation of a certain era of history or culture. The consumers of these crafts have specific lines in mind and search for different craft representations from cultures or historical eras. Recently, the matching of artisan, craft business and consumer has been enhanced through craft registries operating both online and offline.

Certain craft fairs are known for artisans and craft representations that entered in these fairs. The customers of specific market segments get notification of such shows or receive brochures and other notification of the long standing tradition and time of the show and make plans to attend specifically to add to lines of crafts that they have previously purchased or to review and purchase new lines representing history/culture of which they do not presently possess in their collections. There are opportunities in these types of markets to take advantage of favorable price paths over time by developing and offering base craft lines and then later in time offering a supplementary craft related to the base craft. The historic or cultural element of the craft allows this favorable pricing strategy.

There are various forms of craft development and marketing organizations. There are interesting start-up marketing agency arrangements that are present in the historic/cultural craft market. Some supply both retail and wholesale buyers. For example, the Craft Council of Newfoundland and Labrador markets to corporations, associations and government entities to source handmade gifts and presentation pieces for awards and

honors or retirement occasions. Craft portfolio presentations are made at the client's offices to discuss the appropriate needs for upcoming occasions and company presentations. Gift packing, cards, salutations, etc. are presented and customized to customer requirements specific to the occasions. The Craft Council can be contacted at 709-753-2749 or online at www.craftcouncil.nf.ca with a link to the corporate services, and the partner Labrador Craft Marketing Agency (LCMA), which has both retail and wholesale clients and client listings, can be found online at www.labradorcrafts.ca. Representatives of the LCMA are designated to attend the large eastern Canadian craft and gift shows seeking information on wholesale buyers and incorporating this information into promotions and marketing strategy. Some 75 percent of the artisans are aboriginal and have historically been known for their handmade pottery craft and reflection of the quality of the craft and the tradition of the aboriginals. The LCMA has established their promotional logo around this tradition under the name "Labrador Traditions" with secondary logo being "Quality Labrador Crafts." The North Carolina Mountains organizations combine craft promotion and sales with arts and culture activities and boast a set of galleries as sales outlets and places where portfolios of craft lines and earthworks are displayed. Some galleries promote the theme of yesteryear landscapes and communities of the mountain country in North Carolina, but other outlets "celebrate the beauty of the earth through the eyes of the artists" by promoting Native American wildlife themes in crafts and gifts as well as Mexican Indian themes. Crafts are sold along with drawings, prints, and paintings and. Events are sponsored including concerts and promotion of a concert season. These businesses and artisans are listed and promoted by a major eastern U.S. registry and listing of arts and culture, Insiders Guide and are online at www.insiders.com/ncmntns. The listing and organization is divided by Southern Mountains, Central Mountains and Northern Mountains representation. One finds the online display of www.utahheritage.com/ similar to the North Carolina listing but reflecting the different culture and setting of the Highway 89 Corridor.

The Central Plains Development Center located at Holbrook, Nebraska is different type of organization. An abandoned school building was renovated and serves as a central place home for the production of crafts and training programs. Ten businesses are located together in the former school building and form a centralized craft business hub in the area. The businesses are promoted through the GROW Nebraska Marketing and Training Program and were featured in the November 1996 Crafts Report. This organization is a start-up from government economic development funding similar to the Tamarack Craft Center in West Virginia that attracts close to a half-million visitors annually in recent years. State government made a very substantial investment in the Tamarack Center. The Nebraska organization is represented online at www.growneb.comJinfo.htm. There are many other organization types and information media that could be reported, but the above are a representation of the craft industry information that was gathered.

Cost Structures of Shows, Fairs and Event Days

Contacts were made with several persons and organizations that sponsor and manage craft fairs; combined event days-craft show functions and forms of historic festivals, and gift shows to obtain a sketch of information on the structure and level of costs and the operations of the events. Information was obtained on craft representatives and the type of shows they attend or enter and represent several artisans, the cost of attendance and booth costs, registration fees and admission charges.⁴ Given the information gleaned from others, Craft fairs within craft industry regions cost between \$25,000 and as high as \$350,000. There are some regional craft specialty shows that run higher in cost but limited information was shared about the breakdown of costs at these shows. Additional investigation would have to be made in order to get more detailed cost information. Booth fees for craft entries run from free entry to as high as \$300 as given in the information that was acquired. Typical is a fee of \$100 for a 10 foot by 10 foot booth, and 10 foot by 20 foot booths can run up to \$200. Covered booths with special electricity use for craft making and/or cash register operation at summer season shows run upward to \$300. Some craft fairs offer discounts on the booth fee for artisans who demonstrate their craft or who offer their services in craft education sessions. Typical arrangement would be the cost of \$95 for a 10-foot by 10-foot booth if the craft is demonstrated, and \$135 to \$150 for such a booth if the craft is not demonstrated and only displayed for potential sales. Admission at these shows varies from free admission to a cost of \$20 per adult. Some group rates are offered for special tourist group visitors and package tourists such as groups scheduled to come into the area via tour bus, etc. The admission is included in the overall cost of the tour package. An example of cost categories and levels and the procedures of a craft show can be found for the Black Mountain Arts and Craft Show online at www.olddepot.org/craftshow/crafters.htm.

Combined event days-craft shows range in cost from \$20,000 to \$600,000. Booth costs range from \$95 to \$400 for typical 10-foot by 10-foot booths and larger booths with special facilities are more expensive.⁴ Again, there are discounts on booth fees for various services that are performed by the craft entrant. Many of these events are sponsored in their entirety or partner sponsored and operated by a volunteer agency such as a charity, a hospital or a public agency. In this case there is a contract between the craft interests and the partner sponsor on the split of both revenues and costs. A 1999 survey conducted by the *Crafts Report* magazine staff suggests some statistics about craft show costs, sales at the craft show, and some information about mean income levels of crafters in ten different craft mediums. This survey can be found online at www.craftsreport.com/industrystats/insight99.html. There are some gaps in the survey

⁴Some detail of the interviews with some of the contacts is contained in DeeVon Bailey. 2002. Potential Costs Associated With Different Types of Shows/Festivals. Paper, Department of Economics, Utah State University, Logan, Utah.

since in some of the reported categories the number of respondents to the survey is quite low, but there is some benchmark information about incomes and expenditures in the industry that provide a perspective on the industry and the scale of operations of craft shows and the different media entries of these shows.

Summer Fest is an outdoor art show held in Logan, Utah each summer on the Tabernacle grounds. Logan Regional Hospital (LRH) has been the volunteer agency organizing and operating this show for the past few years. Summer Fest is a juried show and focuses on art rather than crafts. The art offered at Summer Fest ranges from high-end watercolor art, oil painting, and sculpting to lower-end art such as birdhouse making. The jury attempts to make each booth unique in art display and representation. The show requires 20 volunteers to operate the events and functions included. Total costs for the show are between \$30,000 and \$40,000 annually with about \$3,500 of the total spent on promotion. Besides promotion, costs include tents, stages, sound systems, and musicians. Logan Regional Hospital receives the revenues from the booth fees, which are \$125 per booth for the displayers and \$300 for food booths irrespective of size. The show draws 10,000 to 15,000 visitors most of whom are from the communities within Cache Valley. The publicity for the event is directed to the residents and businesses in the local communities. The festival is recipient of free advertisement from local businesses and other volunteer groups. These types of festivals are generally considered "breakeven" events. There are benefits to local businesses, motels and food establishments during the two and one-half days of the event, but most of the impact is during that period of time and to some extent a day or two prior to the event.

Historical festivals generally cost between \$150,000 to over \$3 million. The typical cost for intermountain region festivals of this type vary from \$150,000 to \$800,000. Booth fees for craft artisans range from \$95 to \$300 for rather uniform booths but with some booths there are more expanded facility amenities. Again, the range in booth cost is dependent on services provided by the artisan as part of the festival. These costs run from 65 to 75 percent of the total revenues generated by these festivals. Admission charges are the usual policy and they can run up to \$20 for an adult admission. Some of these festivals have two-part tariffs; a fee for entry and a charge for certain events such as festival concerts on designated days, or for demonstrations. The organization sponsors of these events usually contract for 15 -20 percent of food sales as a way to generate revenues to maintain the sponsorship of the shows. Entertainers generally are a part of the action at these festivals and can cost up to 25 percent of total costs for the entire festival. In some cases the entertainers are sponsored by grants and gifts from businesses to the festival organization.

Wholesale craft shows are a whole different marketing operation. The main cost element of interest is the cost of getting to the show and the entry. For the artisan and the small

craft business these shows are used to display craft portfolios and to obtain information on customers and market segments of customers. The costs associated with participating at a wholesale craft show include booth space, travel and living expenses, and shipment expenses for the products and the craft portfolios. Some information was obtained from various craft councils and organizations sponsoring such shows. Typical information is summarized in conversation with Alice Merit⁵, who directs the Tennessee Association of Crafts and Artists (TACA). She explains that TACA was organized in 1965 and held its first local craft shows in 1972. Ms. Merit indicates that TACA has a full-time staff of one person and two part-time people. TACA organizes local and regional craft shows, provides business training and professional development opportunities to craftspeople and artists in Tennessee, and generally promotes the Tennessee craft industry. TACA helps organize craftspeople and artists to participate in wholesale craft shows. They typically take 6-10 producers to these shows. Ms. Merit estimates the total cost of participating at these shows to be approximately \$10,000. TACA charges the people they take to the show enough money to cover TACA expenses. The cost to individual participants is between \$1,000 and \$1,500. Sales orders generated at the shows vary widely. Ms. Merit indicates that at a recent show held by the Rosen Group, an organization similar to TACA, but representing producers in Arkansas, generated about \$120,000 in sales orders while TACA generated only about \$10,000, and the \$10,000 was about the level of the TACA costs.

TACA does not view wholesale craft shows as a method to generate money to support their organization. TACA charges an annual membership fee of \$35 to its 600 members and also operates three local and regional craft shows each year. Their spring show is only for Tennessee arts and crafts and has 170 booth spaces that are sold for \$310 each. TACA operates two fall shows with a combined total of 280 booth spaces that are sold for \$200 each. TACA solicits contributions from local communities and businesses and also occasionally applies for government-sponsored grants.

Gift shows are generally huge operations costing several millions of dollars but with upwards to 3,000 booth entries or more on some occasions. The gift show is primarily a representative marketing operation. Booth costs range from \$900 upward to \$2,500 and the representative displays portfolios and products for sale for different producers. From the information gathered on the operations of representatives, it appears that commissions charged range between 7 and 10 percent of the sales price. These commissions are either contracted commissions for the sale of products or the producer consigns the product to the representative and spot commissions are taken at the time of sale. The markup on products distributed through the gift show process and subsequent orders represents a

⁵ TACA is located in Nashville, TN and the telephone number is 615.385.1904.

wide range of from 20 percent all the way to 100 percent depending on the craft item. Juried crafts, and particularly pottery items, representing an historical era or a particular culture usually have the higher markup over costs and are the most likely to be marked at the keystone level of 100 percent. Art works also receive a high markup over costs. There is an advantage to the representative marketing approach in that several craft lines can be displayed and sold through the one representative. This can also be a disadvantage if promotion and sales effort is uneven amongst different craft lines.

Handmade crafts only comprise a portion of the displays and representation at gift shows. There is some sentiment that the gift show does not provide the format for the concentration of promotion and subsequent sales of handmade and juried crafts as do specific craft shows or even combined event day-craft fairs.

If an organization such as the Utah Heritage Highway 89 Alliance or the Sanpete Trade Association were to send a representative or a group of producers to a gift show, then the cost of such representation could run from \$5,000 to \$10,000 depending on the product shipment, the booth cost, and the stay at the particular gift show location. This was the case for information that we found on the operations of some craft councils or marketing agencies directly representing craft producers. For example, the Labrador Craft Marketing Agency (LCMA) in Canada attends major wholesale shows such as the Atlantic Craft show in Halifax and the major gift show in Toronto. The LCMA does not operate a retail outlet but coordinates the craft marketing efforts of Newfoundland and Labrador producers. The LCMA philosophy is to not intrude on local business sales efforts but concentrate their efforts on coordinating the marketing crafts to these local businesses and to seek wholesale business for the producers. Other associations send producer representatives to a selection of wholesale craft shows and gift shows. The representation is geared to specific market segments. The costs are split in various ways between the producers making the trip and the craft association or council.

Tourism and the Craft Industry

From the information gathered it appears that it is important to understand the shopping behavior of the tourist. One of the goals of the Alliance was to promote crafts to the tourist population coming into central and southern Utah, so it is important that the Alliance members and members of any cooperative understand this shopping behavior and the implied focus on craft production and pricing that would be involved. Results of a comparative study of tourists and non-tourist shoppers at the Sanpete Trade Association

indicate that the tourists anticipated finding heritage-related products in the Cooperative.⁶ A summary of the limited information acquired from other sources provides a part of the story on items purchased and the pricing levels for these items. A more detailed survey would have to be carried out in order to accurately characterize demand behavior in the Heritage Highway 89 Corridor.

Approximately 30 percent of tourists buying purchase crafts that add to a collection. So there is a market for producing crafts in sets or a base item followed by subsequent supplementary items. Most marketing studies would suggest that there is an opportunity in the base good supplementary good case to increase the value of the base good by creating the supplemental good in such a way, or developing the timing of its creation relative to the timing of the production of the base good, in order to link such a good to the base good. However, the marketing of the base and supplementary good has to be under a rather strict control strategy and the market for this coupling of goods is highly segmented. Many tourists return to a certain location both because there are scenery amenities and because of certain event day programs and, in addition, they are looking for additions to collectables. These tourists are the market segment to be targeted. The producer must also keep a record of these customers. Occasional brochures sent to this niche market would be a highly effective marketing effort. One has to also separate out the customers that are actually purchasing a craft collectable from those that are repeat purchasers of location mementos such as bumper stickers, key chains, small and lower priced gift items, etc. The particular market segment of interest in this case also includes persons who make repeat purchases of antiques.

Approximately 70 percent of tourists buying purchase T-shirts, sweatshirts, postcards, booklets and maps with pictures of the particular location or event they are visiting. This is the category, aside from food and local overnight room rental, on which tourists spend the most money. Limited information suggests that approximately 55 percent of tourists spend the most money on these items. This closely matches an earlier regional tourist study that was conducted in the Midwest.⁷ The tourist market segments of most interest to handmade and historical/cultural craft makers would be the ethnic/arts segment and the history/national parks segment. These tourists are interested in ethnic, folk, historic, and Western crafts that are also associated with particular historic or national park locations.

⁶Wayment, Tawna. 2002. Analysis of Consumers' Perceptions and Attitudes Towards Services and Products Offered by a Craft Cooperative in Rural Utah. Unpublished Master's Thesis, Utah State University, Logan.

⁷Gahring, S., S. Niemeyer, R. Reilly and J. A. Stout. 1992. *Marketing Crafts and Other Products to Tourists*. North Central Regional Extension Publication 445, University of Minnesota, August.

They are also returning visitors and repeat purchasers of specific craft items or sets of collectables. They would be possibly interested in the ethnic background of the Heritage Highway 89 Corridor but most likely interested in the historic/national park setting of the Corridor. Another segment to which some promotion effort could be targeted is the urban/entertainment group of tourists who do have preferences for handicraft and designer crafts and mainly purchase crafts for gifts and visual impact amenity when displayed in the home. However, most of these types of tourists visit galleries in urban locations and make their purchases in these locations. However, the Alliance could do more promotion in Western cities in order to attract visits by these tourists to the Corridor. Southern Utah also attracts the active recreation tourist in large numbers. The handmade craft or artwork is not a major focus of purchases of this group. Their expenditures in the area are primarily for food, recreation gear and rentals, and overnight room rental. The items they buy are in the T-shirt, sweatshirt and small memento category.

The limited information that was gathered suggests that most tourist items purchased in the Corridor area other than food, housing, recreation gear and rental fall in the price range of \$10 to \$45. Sales of handmade craft of historical/cultural nature are primarily made to collector customers or customers who are interested in ethnic/cultural crafts who are located in other states within the U.S. and primarily western states. These customers may be tourists or were touring the Corridor when they found their first craft item and became interested in the historical/cultural setting of the corridor and the sequence of crafts developed and sold by the local craft producers. Obviously, this represents a considerably limited information base. A more detailed survey and marketing study would be needed to assess the accuracy of this observation and to develop information on price ranges and demand ranges within the Corridor and closely associated western regions.

The Craft Center and Loan Funding

Limited information was acquired on those craft associations that have central locations for either production of crafts, training efforts, portfolio display or all three functions combined. Some associations and marketing agencies do maintain craft centers for the production and display of craft. Others rely on marketing efforts to place crafts in local businesses or with wholesale craft dealers. If the center is to be a place production, display and training, then it is important that the center be located at a known historical or cultural building that becomes a part of the craft promotion. Another strategy is to locate the center in an area of heavier tourist traffic. Several associations advertise these centers online and develop a sequence of photos of the historical area and cultural background and the historical/cultural background of the building in which the center is housed. The architecture character is documented and promoted. Typical displays are represented by the Black Mountain craft producers, and the Old Depot Association at

www.olddepot.org/craftshow/crafter*s.htm, and the Devon House Craft Centre located near the St. John harbor in Newfoundland displayed online at www.craftcouncil.nf.ca/about/devonhouse.asp.

Preliminary information suggests that loan funds to be contracted with producers are no more than \$40,000 and most likely around \$25,000. An upper limit on funds loaned to any one producer or artisan is usually the case and this limit is typically in the range of \$3,000 to \$4,500. The loan is used for the purchase of supplies, small equipment, and in some cases is used for start-up expenditures such as training expenditures. These revolving loans are set up from grant funds from businesses or lenders and in some cases from government agency economic development grants and micro-finance or micro-enterprise funding. The operation of the loan fund is usually through a lender with an association or craft council providing guarantees in some cases via links to existing larger purpose revolving funds or from micro enterprise funding. In the case of the guarantee arrangement, there is usually a two-part grant or financing arrangement to initiate the craft revolving loan fund. One element of the financing is for the loan fund and another is an initiating finance arrangement for the guarantee fund that is also managed by the lender or a separate investment agency or bank. Financing via a micro-finance organization is an approach to fill financing gaps between lender limitations and loan costs and the needs of the craft organization or producer. Usually the lender will only finance up to 50 - 60 percent of a startup loan because of restrictions on taking risk relative to capitalization that are part of the regulatory structure on commercial lenders. Moreover, the interest rate is sometimes higher than the craft producer can pay in the startup position. So the micro-financing or micro-enterprise function is called in to fill in the gaps in the financing needs. This function is usually coordinated by the craft association or council and is done so in several cases as a link to a broader and larger business financing arrangement. More information these types of financial support arrangements can be found at www.gfusa.org/replicatiorzs/domestic4000.html, or at the Colorado Micro credit site at www.coloradomicrocredit.org. More detail on this function is given in the section on the revolving loan fund that follows later in this report.

Strategies/Initiatives for the Craft Industry: Elements, Cost Structure, and Role of the Alliance

OVERVIEW

The descriptions and recommendations given below for alternative strategies/initiatives that could be carried out in the craft industry within the highway 89 Corridor reflect recent efforts to obtain data and information on possible alternatives, how they might work, the advantages and disadvantages and the estimated cost structure. That which is reported is not a summary of a detailed marketing or strategy study but rather a sketch of

the elements of these possible alternatives, the organizational requirements that are projected to be needed in order to initiate the alternatives, and some actions that would need to be taken. The strategies discussed focus on the production, promotion and sale strategy of the craft industry. There are some implications made about the effects of these alternatives on other business and possible economic activity within the Corridor but those projections are not the main thrust of the explanation given below.

STRATEGY 1: THE CRAFT SHOW WITHIN THE CORRIDOR

The Level of Effort

Currently, crafts are created, displayed and sold at existing event days and celebrations within the communities of the highway 89 Corridor. There are crafts that are sold through the function of the Sanpete Trade Association cooperative and other items sold by independent artisans and craft businesses in these event day entries. Those items sold through the cooperative are charged the commission on the sales price of the item. This commission is reduced if producers volunteer work at the cooperative at the rate of 8 hours per month. Crafts sold by cooperative members through event days in the Corridor are also charged the commission on the sale price of the particular item. From the survey conducted by Gary Anderson of the Utah State Extension Service⁸ opinion amongst the producers is in favor of initiating a craft fair within the Corridor. The cost of such craft show is estimated to be in the neighborhood of \$40,000 with approximately 15 percent of that cost going into promotion, brochures, and customer contacting outside of the Corridor. The preference is for a summer time show and possibly being conducted at a similar time as certain event day celebrations are taking place, but separate of the Scandinavian days celebration, which is a combined craft-event day function. This kind of fair could be sponsored by the Utah Heritage Highway 89 Alliance or the Alliance with craft business partnering. A threshold attendance of at least 15,000 paying an adult entrance fee of \$5 would have to be the target of the promotion in order to pay the cost of the fair and develop limited funding for repeat sponsorship without charging a booth fee to craft display entrants. The initial promotion and set up of the fair would have to come from grants either from arts and crafts agencies or economic development agencies of the State of Utah, or from some form of loan from a lender with guarantee from these agencies or guarantee linked to some form micro-financing agreement. Alternatively, a booth charge of at least \$100 for the initial fair would be a minimal booth charge for a 10-foot by 10-foot booth.

A Show Promotion Alternative

An alternative to this type of arrangement for a craft show is for an outside volunteer craft promoter to initiate the promotion of the crafts to a set of buyers in addition to

⁸Anderson, Gary L. 2001. Utah Heritage Highway "89" Alliance Feasibility Study.

customers that would be on local producer lists. The sponsors of the show would have to decide on the focus of the show relative to craft type or allow all types of handmade craft to be promoted and displayed. This places the sponsor such as the Utah Heritage Highway 89 Alliance in the role of coordinating agency for the producers. In the process of gathering information about the craft industry and its operations these types of arrangements were discussed with promoters. A few names of show promoters were listed. One such promoter contacted, Ms. Barbara Pitt⁹ directs Heritage Markets in Carlisle, Pennsylvania and has been a wholesale trade show promoter for traditional crafts for almost 25 years. Ms. Pitt shared a typical arrangement that could be made for a small sized local craft show and the funding for the promotion is based on booth fees. A small entry show would have a booth fee of \$95 of which she would take \$45 for promotion to her buyers and spend around 50 hours in promotion work. This is a typical arrangement she has with a show in Granville, Ohio. There are other arrangements that could be made and the fee charged would vary by the arrangement made. If a promoter were to take on the task of promoting for a broader set of potential customers for the Corridor crafts then other funding arrangements would be required perhaps including initial funding for the initial show much the same as discussed earlier, i.e., funding coming from grants.

Expenditures by Attendees

The expectations of expenditures at this type of event appears to be surprising at first glance but the information on the split of expenditures at a local craft show confirms that approximately from 85-90 percent of visitor expenditure is on food and the remaining 10-15 percent is spent on crafts entered in the show. However, there could be entry fees for food booths at such a function and then a split of earnings from these booths with the vendors. A typical split is 80-85 percent to vendor and 15-20 percent for the sponsoring organization. It is also important that specific craft customers be attracted to the show in order to generate orders for future delivery of crafts.

A Juried Show

Most promoters contacted, including Ms. Pitt, suggest that the craft products need to be special and set apart from the usual tourist target items, since they will not be price competitive with mass produced items. Uniqueness is what attracts people and the specific craft market segments such as the historical/national parks and the ethnic/cultural segments. The indication is that the local craft show not become just another attraction in the area and that it be differentiated in nature from other local events but be held at the same time as some other attraction, preferably not a combined craft-event day function. Most promoters discussed the "living history" aspect of the crafts for such a local areas as

⁹ The contact is Heritage Markets, Box 389, Carlisle, PA 17013. The telephone number is 717.249.9404.

southern Utah and it is this aspect of the consumers experience with the product that differentiates a "heritage" event from simply another craft show. The strategy is basically to develop a theme and then let the craftspeople and artisan develop the mood by displaying and promoting their products based on guidelines that require faithfulness to the theme. A juried show is recommended. It is recognized that there are more than one theme involved in the production of crafts in the Corridor and some artisan already have market reputation for their particular theme. Again, this would put an organization that represents producers in a coordinating role in order to determine what theme or if multiple themes should be represented by the promoter in the development of the show and promoting to customer market segments.

The Purpose of the Show and Its Impacts

Preliminary information was obtained on the value of the local craft show to the local community. One of the persons contacted was Laurie Huttunen¹⁰ of HandMade in America. She indicates that the value of local craft show is the broader economic impact this type of show has on the entire community compared to participation in wholesale craft shows. Tourist expenditure is generated for the local area. The wholesale craft shows tend to more directly benefit artists and craftspeople themselves with less of a direct effect on the local community. The sponsor of the local craft shows would have a booth fee of \$95 of which she would take \$45 for promotion to her buyers and spend around 50 hours in promotion work. This is a typical arrangement she has with a show in Granville, Ohio. There are other arrangements that could be made and the fee charged would vary by the arrangement made. If a promoter were to take on the task of promoting for a broader set of potential customers for the Corridor crafts then other funding arrangements would be required perhaps including initial funding for the initial show much the same as discussed earlier, i.e., funding coming from grants needs to determine the target of the benefit and then organize and promote the show accordingly.

Ms. Huttunen suggests that a group just starting should focus on retail shows in their own area because they require the least experience and the least risk. Wholesale shows can be expensive and also require considerable experience. Typically, wholesale shows are well established and they are located in larger marketing areas in urban locations. The sponsor-promoter mode of developing the local craft show, however, combines elements of the wholesale show with the local retail show particularly, as mentioned earlier, if the promoter is contacting and advertising to a set of known buyers from specific market segments. Generally, putting the show together is straightforward. The challenge is in attracting potential customers to the show. Linking the shows with another local

¹⁰ The contact is HandMade in America, Box 2089, Asheville, NC 28802. The telephone number is 828.252.0121.

attraction would then be advantageous. There are events within the Corridor that could be used and there is the Shakespearean Festival in nearby Cedar City that could also be used if negotiated.

The Measure of Success

Most promoters and craft councils suggest a threshold of sales generated from the show be 8 to 10 times the cost of the show in order to consider the business potential of the function a success. If the initial show actually turns out to be a breakeven function, then it needs to generate the 10 fold sales over cost for each craft entrant in order to be considered a success in generating sustaining sales. For a total show at the level of \$40,000 in cost, which would probably be a breakeven operation in this case, \$400,000 in sales should be generated. A booth fee of \$100, and other costs of entry such as a registration of \$30 and a jury fee of \$70 and perhaps other costs of \$100, would mean that \$3,000 in sales would have to be generated for the entrant to judge the event a sales success. This is a general rule of thumb in the industry and would in addition be true for attendance at a major wholesale craft show or entry in a major gift show. The costs of entry into a gift show, for example, could run \$5,000 - \$10,000 as outlined earlier in this report. The successful sales generated threshold would then have to be from \$48,000 to \$100,000 to consider this effort a sustainable venture. The success also depends on the capability to produce using the handmade technology and within jury rules. The artisan has to consider the time in production and the time commitment to the handmade process and then enter a show or order business at the appropriate level that matches their estimated creation level and time of production.

STRATEGY 2: PRODUCT DIFFERENTIATION:

THE JURIED CRAFT AND THE DEVELOPMENT OF A HERITAGE THEME

The earlier report by Gary Anderson providing information on producer preferences suggests that craft producers responding to a survey were in favor of crafts being juried and going further to develop a heritage theme. However, there was sentiment for the coordinated promotion and sales of juried and non-juried crafts at shops in the area and through the Sanpete Trade Association and the combined craft-event day functions in the area such as the Scandinavian Heritage Festival, the Quilt Walk and Apple Days. This presents a dilemma in developing a pricing pattern for juried and non-juried crafts and maintaining price as a signal of market segmentation in the selling of the crafts. It also presents a problem in developing a theme, and particularly the historic/cultural theme, to differentiate an ongoing local craft show from other craft shows in the western region of the U.S. and other locations in order to attract specific customer market segments.

The Juried Craft

It is recommended that if a local craft show is to be initiated that the show be a juried show. The intent of the show is to differentiate the heritage theme that could be further developed and used to market the crafts produced in the area. The show needs to promote and display the heritage theme but offer heritage/culture uniqueness apart from other craft shows that are in existence, particularly in the U.S., in order to attract buyers from the specific targeted market segments including tourists. Much of the handmade craft items produced in the area will not be price competitive with the general tourist-preferred items and/or gifts (the \$25 - \$75 range). Therefore, they must be differentiated and allow the differentiated price to signal the particular market segment in which the craft matches. This is not an indictment of the production and sale of crafts and gift items that meet the general demand of the tourists that come into the area during park season nor their quality. These items are marketed to a different market segment of repeat purchasers. The juried craft is targeted to other market segments, which also may include tourists specifically demanding certain unique cultural or historic crafts. The juried differentiation is also designed to target repeated purchases from these other market segments.

There are several skillfully developed crafts being produced running the range from quilts, rugs, pottery, heritage utensils, dolls, jewelry, and other handmade items. They all represent an era of heritage and culture that is associated with the area, its settlement, the people and the natural beauties of the Corridor. Several craft items already have a differentiated reputation that is recognized by particular buyers with specific preferences associated with certain craft market segments. These reputations should be maintained and promoted at the same time that the items also become differentiated further in the heritage dimension. If the proper representation of producers and business is maintained on the board of the Utah Heritage Highway 89 Alliance, then the Alliance is the organization that could take on the role of coordinating the development of the differentiated heritage theme that could be tied to the handmade items and provide the basis for promotion.

The Heritage Theme

The theme should be well thought out and then documented. Moreover each craft item should be tied to the heritage theme by documentation. This two tiered documentation then provides the basis for the jury process and the promotion of the particular craft differentiation to specific market segments (both wholesale and retail), local shops, and combined event day-craft functions where the craft portfolios and items are entered.

The question to be resolved is, what particular heritage theme should be followed? The current hangtags seem to indicate a mixed theme of information for tourists (what and who is along highway 89) with a reference as to how to find out more, and a reference to fine craftsmanship and "a piece of history", and then a symbolism promotion of Utah

heritage and highway 89. It is true that the Alliance is a "Utah Heritage Highway 89 Alliance", and it is a piece of Utah heritage that is being represented by the crafts. It is also true that recent emphasis is being put on economic development along highway corridors and coordination among arts and craft groups and agencies within Utah. However, it appears that the brief promotional statement is attempting to appease its recent backers and a host of other local activities rather than actually representing what is being offered as the particular heritage of the fine craft that is being skillfully developed. One is tempted to ask the question, is it highway 89 that is important in the promotion? The answer appears to be affirmative for promotion of tourism, but the intent to promote crafts, which of course in turn might affect tourism, appears to be somewhat muted in the statement of the hangtag. The new hangtag does suggest "Hand Made", but is a statement that is coupled with the designation of the heritage highway, "Heritage Utah 89 Highway". The back of this hangtag then completes a description of the highway as a scenic route. Two promotion messages are attempted, but the one that makes the point is all about the highway, targeting tourism and implying that as the main promotion target attached to the craft. This is a worthy promotion target. However promotion of the craft produced in the area and its representation of a known location or heritage appears to be muted. The original hangtag also split the promotion message and in four dimensions, namely, the highway, highway 89 heritage, Utah heritage, and then more about the crafts and wares produced in the area than is indicated in the new hangtag.

To further clarify this dissection, let us look at, for example, the promotion element in the Craft Council of Newfoundland and Labrador, which also has a scenic summer coastal route as well as boat access from the west leading in to St. John's. The logo adopted has a basic and familiar map of Labrador and the island of the location of St. John's, then the simple emboldened lettering as major title, "**LABRADOR TRADITIONS**", and minor title, "Quality Labrador Crafts" in a chosen lettering font promoting the tradition of the Labrador craft skill associated mainly with aboriginals in that location. Of course, the crafts coming from this area have a long and mature reputation for the types of items and the living history of the skilled artisans. But the promotion is centered on this particular skill and is targeted to the particular market segment of interest. The logo can be viewed online at www.labradorcrafts.ca/agency.htm. The Craft Council and the Labrador Craft Marketing Association are in the background and are the coordinating and promotional agencies but not any part of the focus of or target of the promotion. It is the differentiated product that is mainly being promoted. HandMade in America promotes a broad early American handmade theme that is well known.

The North Carolina craft councils come closer to what has now been apparently initiated as a possible theme in the Highway 89 Corridor, but the scenic promotion is the "North Carolina Mountains" and then promotion of the various galleries and the local craft shows. The gallery promotions indicate the type of craft carried and the differentiation of

the craft portfolios that can be viewed at each gallery. Thus the theme is also mixed between tourism (but craft hunting tourism by buyers in specific market segments) and the galleries that are located in the mountain area. Several galleries advertise that they carry culture specific crafts and gift items from artisans and producers in other locations such as certain cultures in Mexico, the western Native American cultures and others. A review of this approach can be made online at www.insiders.com/ncmntns/main-arts4.htm.

Steps have been taken to propose a national heritage area for the Corridor. The proposal calls for "National Mormon Pioneer Heritage Area." This could be the basis for a craft promotion theme. This could possibly mean yet another change in emphasis in promotion and the thrust of promotion in the hangtag. This type of theme was discussed with other craft show and craft marketing professionals to get an assessment of the possible success of such a theme and some sketch of the extent of the market interested in this particular tie to heritage. Ms. Barbara Pitt of Heritage Markets in Carlisle, Pennsylvania suggests that a "Mormon Heritage" theme has at least a regional appeal but maybe not a broad appeal. Other professionals suggest the regional appeal for this type of cultural reference and possible expansion to western U.S. markets, but also indicate that existing craft being produced in the area already have close to a brand stage reputation and it may be difficult to establish this theme as the brand and then reassign these existing craft lines to a private label position under this new intended "umbrella" brand. Brand loyalty to the new theme is untested. The suggestion is that the theme brand that currently exists is actually linked to the national parks location recognition and recognition of the artisans and people in that area. In comparison, the "American Handicrafted" theme has a broad appeal as do the North Carolina Mountains themes, the latter being closer to the known existing theme that has apparently been perceived by these professionals for the highway 89 Corridor. The "Mormon Heritage" theme is also perceived as having a reasonably close substitute in the Mormon Handicraft brand that is located within Utah but which is marketed primarily in the Wasatch Front area of the state. There are some existing heritage themes (and scenery themes) that are labeled in current online promotion of the Corridor, such as "Little Denmark", "Under the Rim", etc that could be used as a theme or a combination of heritage-tourism strategies.

The theme, which would guide the jurying procedure in a collective effort of the artisans and producers to promote craft sales, appears at best to be unsettled. The settling of this issue could be one of the roles of the Alliance, if there is appropriate representation on the board of the Alliance. However, there remains the question of the role that is to be taken up by the Sanpete Trade Association or any other cooperative that would be initiated in the Corridor. If the craft cooperative mode of operation is continued, then it would appear that these cooperatives (or councils) take the initiative in developing the craft promotion theme and the cooperative promotion and sales effort. In such case, the

Alliance then steps back out of the craft promotion decision and takes up its multifaceted role of coordinating tourism, heritage highway 89 tourism and development and economic development in addition to craft development in the Corridor with other agencies, mainly governmental agencies. The main aim of the cooperation or the coordination role is to be able to pool resources (or command resources) to achieve scale economies in the input acquisition, production, and marketing activities of the Corridor.

The Jurying Procedure

It is recommended that the jurying of the crafts be done by an outside craft specialist or craft promoter. This requires the specific theme and/or heritage link be developed and well documented. If the local craft show strategy is to be followed, then it is recommended that a professional promoter be brought in to manage the jurying process with other outside specialists and in addition to promote and set up the craft show. A deadline for registration of a portfolio of crafts should be set prior to the show, if the show is used as the "kick-off" of the craft display and sales season where tourists and other customers come into the Corridor with intent on attending the show along with attendance at another Corridor or regional attraction in addition to touring Heritage Highway 89. The jurying should be completed shortly after this deadline. The artisan/crafter should be required to present a summary of the portfolio, including a title of the work or representation of the private label differentiation of the craft within the general theme, date made, the media classification, and dimensions of the work. There should be rules drawn up to appropriately judge the work according to its match with alternative market segments and should be done by the crafters and craft specialists. The rules should be clearly articulated and posted or sent to the potential entrants or those developing crafts to be sold in conformity with the juried craft intent. The work should be judged for quality, suitability, and originality or conformity with the theme. Quotas may have to be imposed for each media in order to balance the presentation of a craft show, but this action depends on the number of media categories and the total number of entries relative to display capacity. There are several online sites that can be viewed in order to obtain information on the development of the craft show, the juried craft and the advantages and disadvantages of alternative jury processes such as www.olddepot.org/craftshow/jury.htm, www.olddepot.org/rules.htm, and www.craftcouncil.nf.ca/lcma.asp to name but a few.

STRATEGY 3: PRICING

Unless the collective approach to pricing through coordination of cooperative marketing or through a marketing function taken on by the Alliance is undertaken, the pricing of a portfolio of craft products will be set by the interactions in each market segment or by some attempt by the crafters to administer their own markup pricing depending on their understanding of the demand conditions that they face. Crafts with relatively few

substitutes in the craft industry will command a higher markup. The impact of the juried craft is product differentiation in order to price a portfolio of products with high markup. Crafts and gift items which are commonly found in various tourist areas command less markup. The levels at which crafts are priced also vary with the product differentiation and the market segment as explained earlier.

If collective marketing is pursued, then the pricing of a product portfolio (a mixture of market segments and/or quality attributes) has to be coordinated. The marketing literature generally suggests that a firm managing the pricing of a two-tiered or multi-tiered portfolio of products has to pay attention to market segment perceived benefits of the products (demand conditions) and non-price marketing effort. There are exceptions to this conclusion, most of which are related to the problem of pricing and alternative retail marketing formats (mainly the introduction of mass marketing) where, in the multi-format marketing case, overall store/shop assortments have greater effect on shopping behavior than pricing and promotions. In these cases, retailer's feature advertising activity generally affects shopping behavior (which stores to shop and how much to spend), while unadvertised discounts do not. These exceptions aside, it is generally the case that a sustainable high pricing strategy is associated with substantial non-price marketing effort resulting in higher discounted revenue streams over time. The additional key to sustained high pricing strategy is to exactly match the product and product differentiation to the right market segment and its perceived benefits that the product seemingly provides, inducing a high willingness to pay and non-willingness to substitute. The customer's acceptance of the product without side-effect reservations or association with negative externalities (for example pollution) also is important in sustaining a price level. One of the values of tying crafts to a historic heritage theme or to a noted natural location is that the good becomes associated as an "experience" good. The good is perceived as having multiple attribute benefits that are tied to customer experiences as the good is purchased or purchased with other amenity goods. The idea of the "experience economy" is that the customer is the product. Goods are developed to satisfy certain feelings and to provide customer experience in the pleasantries or amenities of the product or its use with other products. Crafts fit the category of an experience good when coupled with the customer's experience of other services. This idea may be the attempted promotion message that is contained in the original hangtag that was developed by the Heritage Products Alliance and causes it to be perceived as having a mixed message as viewed by the limited information that was obtained by craft specialists. This perception would have to be considered in addressing the action and initiating strategy 2 discussed above. Extension worksheets for "Marketing Crafts" are in Appendix A. These sheets are designed to assist producers in identifying target markets, differentiating products from competition, and determining production costs and break-even analysis.

If pricing is coordinated collectively, then it appears that a three-tier attribute price coordination strategy would be followed. The three general tier include first, the \$20 - \$75 range items that most tourists are going to be purchasing and for which there is a long record of purchase; second, the juried craft which is the existing craft that would be priced considerably above the general tourist item; and new crafts introduced that belong to the second group and for which market share is not yet established. The marketing literature would then generally suggest in these conditions that an increasing pricing path of initially selling at low prices, which then increase over time according to the craft cycle. The incremental level and timing of the increases in price are highly dependent on beginning market share, and in this case the deepness of product differentiation. The strategy is that price increases as market share increases. Obviously, a detailed market study of market share and craft pricing would have to be completed in order to give direction on the details of this strategy such as level of increase, identification of the craft product cycle, and craft substitution possibilities for the second and third tier attributes of crafts. More precisely, if the items of all three attribute tiers are simultaneously introduced as new products, previous marketing data and results do suggest the successful pricing strategy as the "penetration strategy" of increasing pricing trend for a single product tier as well as a multi-tier portfolio of products as opposed to the "skimming strategy" of setting relatively high prices initially and then decreasing price over time given special market circumstances such as competition and substitutability. But the level of increase and the timing of the increase in the product cycle depend heavily on non-price competition (product differentiation and promotion) of the firm, and in the case at hand the price coordinating organization.

With substantial beginning market share, two sets of pricing strategies are usually indicated, namely, decreasing and steady pricing paths for the existing general item and the existing differentiated product. A new and differentiated product starts with low market share and the pricing path would then be the increasing price path as market share increases, but again depending on the promotion and differentiation capability of the firm.

The existing items that are most purchased by tourists in the Corridor are substitutable, but not instantaneously since they are sold in a specific location such as the highway 89 Corridor. So each location (Highway 89 Corridor versus, for example, Grand Canyon) has some influence over price sometimes referred to as a geographical monopoly but it is really a monopolistic competitor position where others can enter the market but they do so in a sequential or lagged manner. This power over price exists as long as items are tied to the specific location such as mementos relating to a particular national park or location of culture. Again, this is a manifestation of product differentiation. Precise pricing paths would have to rely on information from a more detailed marketing study.

STRATEGY 4: CREDIT CARD ACCEPTANCE

Accepting credit card payments is very important for the craft business. It is probably a necessity in the current market. This observation could be common knowledge to the shop owners and the craft producers in the Highway 89 Corridor and the suggestions made below are offered without complete knowledge of the extent of acceptance credit card purchases. However, there are some problems and costs that are encountered by the small business entrepreneur in accepting credit card payments. These problems need to be identified and there could be a role of a coordinating body, such as the Alliance or a craft cooperative in resolving these problems and working with banks to reduce the costs of accepting credit card payments.

Mail order sales, phone orders, craft show and other spot market sales, and selling crafts online all benefit from accepting credit card payments. Customers will still buy crafts if the producer does not offer such services, but the chances of a sale are greatly increased by this convenience offered to the customer. The steps involved in setting up this option, however, can be confusing and they involve set up fees that can be a deterrent to the small business person. In general the steps involve: a) contacting a bank, generally the bank where the business has a checking account, to learn of the details about opening a merchant account; b) checking around to find out information on other companies that perform credit card transactions, but checking with caution, since this transaction business can be fraught with fraud; c) study all the details to determine all the charges that apply to payments accepted by credit card; d) file the application and pay the fees and work with the institution or company issuing the merchant account on credit checks that they will conduct; and e) learn how to process credit card charges as instructed upon account activation and teach employees the proper processing and checking that has to be done to accept such payments.

Most problems for the small business in accepting credit card payments lie with the institutions that run the merchant accounts. The merchant account provider has the risk of payment if the business doesn't fulfill all the obligations to the credit card holder. Payment risk is managed by the financial institution by being selective about the issuance of the merchant accounts. Merchant account companies manage this same risk by insurance but charge much higher rates for the merchant account in order to cover the insurance fees. The small business with low volume sales is presents a larger risk situation for the financial institution and the small business application can be turned down or additional fees can be added in order to operate the merchant account.

There are some other services that allow credit card payments without opening a merchant account. The small business should investigate these options since they work with small start-up operations and they accept international merchants and intermediaries. This option can be useful for the small business that needs to expand sales or deal with an

international intermediary. The option is especially designed for selling online. As with the other alternatives, this option needs to be thoroughly investigated and the business needs to understand all the fees and limitations. Fees may be higher using these options but may be less hassle and may be useful for international sales. More detailed information can be obtained from the CCNow website at www.ccNow.com/. A rather comprehensive list of these types of services can be found at the Joscon Networks sites like www.webquarry.com/~patty/ecommerciallibrary/toolshosting.html, or www.education.ul.te/tw/postgrad/business.htm. A review of the CCNow procedures and updates can be found online at www.wilsonweb.com/reviews/. The concept of e-commerce and selling online can be reviewed at <http://ecommerce.about.com/library/blnl.htm>. Information on arts and crafts business and the acceptance of credit card payments can be found online at <http://artsandcrafts.about.com/library/>, and one goes to their weekly information newsletter there are different aspects of the arts and craft industry that are explained including recent surveys of the business and some updates on directions and what is new in the industry. These newsletters also provide recommendations on the business end of the craft world. The newsletters are found at the same site as above but at the weekly page, <http://arsandcrafts.about.com/library/weeklyl>. This site also links to many other business and e-commerce sites. Additional information on selling online and its importance to the craft industry is given at another location in this report.

STRATEGY 5: USE OF THE INTERNET

Overview

The number of persons in the United States with access to the Internet has grown by 900 percent since 1994 and nearly 50 percent of the adults in this group purchase goods and services online."¹¹ This growth has changed the typical Web user from a white, college educated male to a more homogeneous user that is reflective of the population. As users of the Internet, females have surpassed the number of males. A recent survey revealed that females tend to use the Internet for shopping because it is convenient and males tend to shop on the Internet to find 'good buys'. Therefore, females tend to shop at name brand sites while males tend to browse. Online business-to-consumer (b to c) sales are expected to continue increasing and it is predicated that sales will reach \$163 billion in 2005. According to Forrester Research Company, pure e-tailers are the businesses that are beginning to show profit from Web based sales. The brick and mortar retailers are still trying to establish themselves as e-tailers.

¹¹ Weiss, Michael J. 2001, March. Online America. *American Demographics*, 53-60.

Artisans/Craftspeople Use of the Web as a Marketing Strategy

The Craft Organization Directors Association reports that the fine crafts market is a \$13.8 billion industry in the United States. The number of artisans and craftspeople with established Web sites is increasing. The advantage of a Web site for an artisan is that the site can provide exposure to a larger number of buyers in their niche market. The Internet allows for fast communication between buyers, who may need more information, and the artisan. A critical question remains. Are craftspeople and artisans making money from their Web presence?

Results from a survey of readers of the Craft Report indicate that there is a positive correlation between the amount of money spent promoting the Web site and the amount of money generated from the site. A little over half (53.8 percent) of the self-selected respondents indicated that they made less than \$1,000 from Web sales. Information was not available to indicate if this was net or gross income. Sales tended to increase the longer the site had been on the Web. One-third of the respondents who had been online for over 5 years reported incomes ranging from \$8,000 to \$15,000¹². Results from a survey of heritage related business operators, living in southern Utah along Highway 89, indicated that 25 of the 34 respondents were interested in selling products using a Web site. Only 17 respondents indicated that they were willing to pay more than \$50 for a Web page.

Artisans and craftspeople interested in establishing a Web presence have a variety of options including a) establishing a personalized Web site, b) joining a community based site (i.e., local Chamber of Commerce), and c) joining an established craft Web site. Artisans and craftspeople that produce one-of-a-kind artwork may find that their products sell well on an auction type Web site. Research indicates that auction-based artwork can sell for 15 to 20 percent more than artwork featured at a fixed price. In addition, artwork sold via auction typically sells in a shorter time frame.

Group Sites

If the Alliance chooses to design a specific group Web site for artisans and craft-persons who live along the designated corridor that is different from the existing www.utahheritage.com site, criteria would need to be established to determine what type of products would be included on the site. Strategy 2 addresses issues related to the juried craft and the development of a heritage theme. If the Alliance determines that the image they want to create for the Web site is one of quality, handmade, heritage products, the criteria would provide guidance to achieve this image. However, a group Web site is only as strong as its weakest artisan or craftsperson. The Web site image could be lowered if

¹² Backer, Noelle. 2001, January. Are Craftspeople Making Money on the Internet? *Crafts Report*, 12-15,33.

one producer fails to meet the quality standards and/or does not meet the standards of fulfillment.

The standards of fulfillment would need to be determined by the group. They would need to decide if the group will warehouse the products or if the orders will be filled and shipped by each artisan/craftsperson (i.e., will the producer drop ship the order to the customer). If products are warehoused, decisions need to be made as to where the warehouse will be located as well as who will process orders. In the event that a large number of orders are received for products, the Alliance would need to determine if producers could supply their products in quantity. Artisans/craftspeople would need to be prepared to produce enough products to meet demand. This preparation could include: a) establishing a line of credit so that financial resources are available to purchase raw materials and to pay overhead costs; b) establishing a production process, so that products can be made efficiently; c) determining if a labor pool exists if the orders are more than individual artisans/craft-person can fill.

If a group site was established, a system would need to be established to keep the site up-to date. If one-of-a-kind or limited edition products are sold out, the producer would have to be responsible for notifying Web maintenance that the product needs to be removed from the site. The Alliance would also need to determine how they would finance the Web site. Some options might include: a) charging the producer an initial fee and then a commission, b) charging only a commission, c) charging an annual fee, or d) including the cost in an allocation to annual Alliance dues.

Another disadvantage of a group Web site is that the odds of shoppers finding individual producers are greater. Results from an exploratory study indicated that viewing order had a significant impact on consumers' likelihood of product purchase.¹³ If a product was the first product viewed, consumers indicated that they were less likely to purchase the product than if it was viewed second or third. This finding suggests those products on a group Web site need to be rotated so that they do not always remain in the same viewing order. Another issue for the Alliance to consider is "Who stands behind the product if there is a dissatisfied customer?"

Cost of Establishing a Web presence

Cost components of a Web site include site design, domain registration, and the Web space. Site design costs vary with the amount of information displayed on the site. Including graphics in a site will cost more than a site without graphics. Frequently, a "Webmaster" (i.e., Web site designer) is hired to design the site. A Web site attribute

¹³ Biers, Karen. 2001. Web Page Background Color Evaluative Effect on Selected Product Attributes. Unpublished Doctoral Dissertation, Oklahoma State University, Stillwater.

rating scale is included in Appendix B. The design and hosting for a group' Web site may be less expensive than a personal site. However, these companies are in business and need to make money, so check the agreement very carefully. The other costs associated with a "free" or low cost site design may end up costing more than paying a Webmaster to design the sign the site. A Web designer may charge \$40-\$100 per hour to design and establish a site. Web shoppers expect Web sites to be updated frequently. Therefore, in addition to the start-up costs of establishing a Web presence, the Alliance would need to allocate resources, such as labor and money, to maintain the site. Domain names need to be reserved. The cost of reserving a domain name for two years can vary from \$40 to \$75. Web space, or the location where the site resides, costs around \$20 to \$30 per month. A detailed cost estimate of establishing and maintaining a site should be obtained before starting the designing.

Some issues that need to be addressed include:

- 20. cost per page
- 21. cost to replace or add items
- 22. commissions or ongoing monthly charges
- 23. ownership of the site

The addition of a "shopping cart" feature to the Web site will typically be an additional cost. The use of a shopping cart does not let the artisans/craft-persons control orders. If the featured products are one-of-a-kind and involve considerable time to produce, it is recommended that shoppers contact the producer for a delivery time or that a delivery time be stated on the site. In this way, the producer can control the number of items ordered. The current conversion rate from products placed in a shopping cart to products actually purchased from the cart is 2 percent. Cart abandonment may occur because the shipping information is not available to the customer until after the product is placed in the cart, delivery time is not available prior to placing a product in the cart, or security information is not available.

Results of the exploratory study indicate a significant correlation found between the attractiveness of the product and the consumers' likelihood of purchase. The Alliance may need to hire a professional photographer to take slides or pictures of the products to be featured on the Web site. The pros and cons of digital pictures versus photographs and/or slides need to be discussed with the Webmaster. Good quality photographs/slides could also be used to develop other promotional materials. Thus the cost could be spread across other marketing pieces.

Money also needs to be budgeted for marketing the Web site. A common misconception is that if the domain name is registered with popular search engine, all that has to be done

is wait for the orders to come in. If this approach is used, the revenue from Web orders will probably be very limited.

Internet as a Resource for Artisans and Craftspeople

The Internet can also increase the number of resource options available to artisans and craft-persons. Craft retailers report that they search the Internet for new and unique craft products to sell in their retail outlets. The crafters along the Corridor could use the Internet as a source of raw materials.

Recommendations

Prior to establishing a Web presence, an artisan, craft-person, or the Alliance need to determine how a Web site would fit into their total marketing strategy. Some artisans/craftspeople may only want to use a Web presence to provide information about the business (including contact information) while others may want to use a Web presence for e-selling. The Alliance needs to include a marketing plan within their business plan. A business plan would help the organization develop their marketing plans based on their mission statement and determine how and if Web based selling would fit within the organization's marketing strategies. Having a plan would help the Alliance members establish an image related to the heritage industry. The business plan would also include financial projections that would help the organization determine their break-even point. Guidelines for writing a business plan are included in Appendix C . Information on starting specific businesses is available at the Business Information Center.¹⁴

Some products sell well on the Web while there may not be a market for others. The percent of artisans/craftspeople and their mediums, with online income over \$8,000 include: a) jewelry - 21.6 percent, b) ceramics/pottery and glass - each 13.7 percent, c) metal - 11.8 percent, d) wood - 9.8 percent, e) fiber/textile - 5.9 percent, f) leather and mixed media - each 3.9 percent, and g) paper - 2 percent (Backer, 2001). Craft products that sell well on the Web may reflect the craft trend in vogue. If this is indeed the case, then products could change as consumers change what they are seeking in the craft market. Craft producers could try selling products through an established craft Web site to determine if their product(s) would sell using the Web sales strategy. Some examples of online sites that specialize in handcrafted items include, but are not limited to www.FunctionalArts.com; www.ArtMecca.com; www.Guild.com; and www.ArtistsVillage.com The Crafts Report magazine frequently features online craft retailers.

¹⁴ Utah Department of Commerce, 2000. Doing Business in Utah, 11. Phone: 801.741.4251.

Utah Heritage Highway 89 Alliance Feasibility Analysis: Revolving Loan Funds

Note: This analysis was prepared by Ed Meyer, Governor's Rural Partnership Office, Utah Department of Community and Economic Development. For sixteen years, Meyer has helped rural Utah businesses and economic development professionals identify financial resources. He was instrumental in establishing Small Business Development Centers throughout rural Utah and has been certified by the National Development Council's in the area of Economic Development Finance. Meyer also served as the initial Director of the Utah Heritage Products Alliance.

OVERVIEW

The Utah Heritage Highway 89 Alliance represents the interests of a wide variety of heritage businesses. These include, but are not limited to, the following:

<i>Bed and Breakfast Inns</i>	<i>Guides and Outfitters</i>	<i>Farmers</i>
<i>Ranchers</i>	<i>Food Processors</i>	<i>Restaurants</i>
<i>Hotels and Motels</i>	<i>Visual Artists</i>	<i>Performing Artists</i>
<i>Artisans</i>	<i>Gift Shops</i>	<i>Art Studios</i>
<i>Museums</i>	<i>Tour Operators</i>	<i>Antique Shops</i>

The capital needs of these businesses will vary greatly depending on the nature of each enterprise. However, depending on how long a business has been in existence, there are different finance tools that should be in place to support the growth of heritage-based businesses. The National Association of Development Organization's Economic Development Finance Service explains the role of microfinance organizations, small business development revolving loan funds and commercial lenders in various stages of what they call "the continuum of lending".

"Microfinance organizations, small business development RLFs, and commercial lenders form what is known as the continuum of lending. The continuum describes the path that many small businesses follow to access increasing amounts of credit over time. Micro-enterprises and small businesses are often unable to secure commercial credit for a number of reasons, including the lack of a credit history, no collateral, and a loan amount that is uneconomical for banks to underwrite and service. Through the continuum of lending, micro-enterprises are given the chance to establish their creditworthiness by first obtaining loans under \$25,000 from noncommercial microfinance organizations. As they become larger companies with greater credit needs, they move to RLFs for loans ranging from

\$25,000 to \$100,000. Many of these RLF loans are participating with commercial lenders, who may ultimately become the sole lender for the business as its creditworthiness is established. In essence, microfinance organizations and small business development RLFs are breeding grounds for bankable businesses.”
(<http://www.nado.org/edfs/index.html>)

This analysis will look at the issues surrounding capital formation for heritage-based businesses in rural Utah and discuss the possible role of revolving loan funds and microfinance initiatives. The report will address key feasibility issues and identify resources the Utah Heritage Highway 89 Alliance may want to access should it choose to pursue its own capital formation initiative. The author will also make recommendations based on this analysis and personal experience.

Are Banks Enough?

If the banking community in rural Utah adequately addresses the capital needs of heritage entrepreneurs, there is no need for the Utah Heritage Highway 89 Association to pursue the creation of a funding mechanism. Three bankers were confidentially interviewed. The bankers represented a small community bank, a larger regional bank and a very large multi-state bank. Their responses were consistent with one another and clearly identify the need for a supplemental finance tool. The following is a summary of their remarks:

- Banks are places where people in your community put their money for safeguarding. Consequently, banks do not make risky investments of your neighbor's funds.
- Banks are heavily regulated. If bank regulators find a bank is making risky investments, they require the bank to hold funds in reserve to protect depositors. Banks make a profit by reinvesting depositor funds so, if they are required to hold funds in reserve, they are less profitable.
- Lending decisions are based on the "5 Cs" of lending. These are:
 - **Character**- Are you an individual who can be trusted? The regional and multi-state bankers confirmed that all but the smallest lending decisions are made by a review committee located in another community. This creates a challenge since the committee members have no history upon which to base a character decision. The community banker said he still takes the character of the borrower into consideration, but that the size of the bank limits the amount of money they can lend
 - **Capacity** - What is your financial strength and track record? All the bankers said that rural entrepreneurs wanting to start a business seldom have a track record. Artisans and artists seldom are financially strong, especially during their formative years.

- **Capital** - How much of your own money have you invested? The bankers typically wanted to see a borrower invest cash equaling 20% to 40% of the project. This requirement excludes the cash poor rural entrepreneur.
- **Collateral** - What do you have to pledge against the loan? Few rural entrepreneurs want to use their personal property as a guarantee, but bankers said this would often be the case. The project itself is often not considered as adequate collateral because the bankers see it as property that would be hard to sell in the event of default. For example, if you borrow money to build a pottery kiln in rural Utah, the banker may feel they could only sell it for a dime on the dollar if the property was repossessed. In many parts of rural Utah, bankers feel any property has limited collateral value because of the difficulty finding a buyer.
- **Conditions** - What is the economy doing and how will it affect your company? The bankers were all concerned with the downturn in tourism. However, they were clearly uncomfortable with many kinds of heritage businesses. They felt somewhat comfortable with the conditions impacting more traditional heritage businesses such as gift shops, restaurants and bed and breakfast inns. They were much less confident with businesses such as artists, artisans, guides and outfitters and tour operators. The bankers admitted that, without a better understanding of the conditions impacting these businesses, they would be reluctant to make any significant loans. They might, however, provide a low level of financing if the borrower meets the other "4 Cs."
- Every banker made a point of saying that they would welcome the opportunity to fund any sound deals proposed by heritage entrepreneurs. However, based on their interpretation of the "5 Cs", it is clear that all but the very lowest risk heritage projects will not receive financing without an outside intervention.

Revolving Loan Funds (RLF)

For the purposes of this analysis, a distinction will be made between traditional revolving loan funds (RLF) and microfinance (micro-enterprise) loan funds (MLF). Traditional revolving loan funds typically fill a "gap" between the loan terms a bank offers and what is acceptable to the entrepreneur. For example, a bank may only be willing to finance 60% of a loan, but the entrepreneur can only provide a 20% equity investment. An RLF can fill this "gap" by lending the entrepreneur the remaining 20% and assuming a second position on the loan. Another kind of gap could occur if, for example, the bank was willing to provide a loan at 10%, but the entrepreneur needed a lower interest rate to justify borrowing the funds. An RLF could fill this "gap" by financing a portion of the loan at a lower rate that, when blended with the higher interest bank loan, would meet the overall interest needs of the borrower. A final gap addressed by an RLF is the "risk gap". Banks often consider a rural loan to be risky due to the perceived risk in disposing of assets in the event of repossession. An RLF addresses this risk by assuming a portion of this risk and assuming a subordinate position. For example, the borrower may invest 20%, an RLF may loan 30% in second position and a bank may lend 50% in first

position. In the event of a foreclosure, the bank can sell the assets for as low as 50% of their value and still not experience a loss. In addition, the bank's portion of the loan can be 70% to 80% guaranteed by agencies such as the SBA or USDA Rural Development, thereby further reducing the "risk gap". These guarantee programs will be reviewed in more depth later in the analysis when a variety of available resources are discussed.

Please note that in the above scenarios, the RLFs role is to leverage bank financing. This partnership with banks is typical of RLFs. While RI-Fs are an outstanding tool for helping existing businesses in distressed communities access expansion capital, they are typically not in the best position to address the financing needs of startup firms. This is because startup up firms are typically weak in several of the "5 Cs" previously discussed and, since RLFs involve partnerships with banks, early stage businesses still have difficulty meeting a bank's lending criteria. The needs of these early stage businesses is better addressed by a variant of the traditional RLF called a microfinance loan fund (MLF) that will be explored in depth later in this analysis.

The key point is that traditional RI-Fs are an important tool in meeting the needs of those heritage entrepreneurs who, with some help filling financing gaps, could qualify for a bank loan. Consequently, the Utah Heritage Highway 89 Association needs to assure that such entrepreneurs have access to this important resource. However, before establishing a traditional RLF, three issues should be addressed. These issues relate to cost, expertise and need.

Cost

The cost of establishing and maintaining an RLF need not be a prohibitive factor. If the Utah Heritage Highway 89 Association were to establish an RLF, the funding for this initiative would almost assuredly come from one or more government or foundation grant. These grants typically allow a reasonable administrative fee. In addition, RLF often assess fees to borrowers to pay for a portion of administrative costs. It is important that administrative costs be fully anticipated including elements such as:

- Salaries
- Benefits
- Facility Costs
- Equipment Costs
- Utilities (including long distance telephone costs)
- Travel (borrowers should be visited periodically to monitor progress)
- Training Costs (for both the administrator and the borrower)
- Accounting and Audit Costs

Expertise

Ideally, the administrator of an RLF will have lending experience. The administrator will need to understand the various funding tools available to help leverage both the RI-Fs funds and the bank loan. He or she should have the skills to read and analyze business plans and financial statements. There will also be a need to administer and, perhaps, write grants. The administrator should also have the skills to package loans. Strong accounting skills are also required.

As currently staffed, the Utah Heritage Highway 89 Association is inadequately staffed to meet these needs. The current director is a half time position who has a multitude of responsibilities that would prohibit him from effectively administering an RLF. Utah State University Extension has supplemented the association's staff with a full time employee dedicated to the Utah Heritage Highway, but this individual's experience does not include the skills outlined above. In addition, while the organization appears to have adequate fiscal controls in place at this time, these controls have only been in place since the fall of 2000. Given the fiscal responsibilities associated with administering an RLF, the organization should be cautious about assuming such an obligation until it has demonstrated the ability to function with the current fiscal controls for a period of time.

Should the Utah Heritage Highway Association choose to establish its own RLF, one of two options should be considered. First, since administrative costs can be paid through RLF funds, the organization should consider hiring a part time employee or contract with an individual with lending experience. Secondly, should the organization elect to hire or contract with an individual without these skills, they should immediately enroll this person in a training program dedicated to managing revolving loan funds. Two such programs are offered by:

- National Association of Development Organization's Economic Development Finance Service (<http://www.nado.org/edfs/index.html>)
- National Development Council (NDC) (<http://www.ndc-online.org/training/pdc/ourses.htm#ed405> and <http://www.ndc-online.org/training/edfpcp/index.htm>)

The author of this section has taken NDC courses and found them to be invaluable. The National Association of Development Organizations has a strong record of offering outstanding training programs for rural communities.

Need

The Utah Heritage Highway 89 Alliance has conducted two surveys of heritage businesses within its service area and confirmed a need for funding throughout the "continuum of lending". Certainly, it is important that revolving loan funds be available

to help such businesses leverage bank financing. However, the Utah Heritage Highway 89 Alliance should not invest its limited staff and resources in creating an RLF if there is not a need to do so. There are currently at least three organizations operating revolving loan funds serving businesses along Utah Heritage Highway 89. The two organizations that are most responsive to local businesses are the Six County Association of Governments serving Sanpete, Sevier, Juab, Millard, Wayne and Paiute Counties (<http://www.governor.state.ut.us/planning/aog/6county.htm#Six County>, Association of Governments) and the Five County Association of Governments serving Beaver, Iron, Washington, Garfield and Wayne Counties (<http://www.fcaog.state.ut.us/>). A third revolving loan fund established, in part, to provide rural loans statewide is run by UTFC Financing Solutions (<http://www.utfc.org/>). UTFC has, in the past, expressed an interest in including heritage-based businesses in its portfolio. However, their track record in this area is not strong and they have recently reorganized.

These three revolving loan funds have both the capital and expertise to meet the needs of Utah Heritage Highway 89 heritage entrepreneurs. Both the Six County and Five County Revolving Loan Funds have historically invested in such enterprises and UTFC has the potential to do so.

Recommendations

24. Though the Utah Heritage Highway 89 Alliance could likely identify grants to fund the costs associated with running its own revolving loan fund, they lack the expertise to do so. Although such expertise could be hired or developed, there is no need to do so as long as existing RLFs with years of expertise meet the needs of heritage entrepreneurs.
25. The role of the Utah Heritage Highway 89 Alliance should be to establish relationships with all existing RLFs if such relationships do not already exist and market the resources of these organizations to Utah Heritage Highway heritage businesses.
26. If existing RLFs need additional funding to meet the needs of heritage entrepreneurs, the Utah Heritage Highway 89 Alliance should partner with these organizations to secure such funding. Possible funding sources are identified later in this analysis.

Microfinance/Micro enterprise Loan Funds (MLF)

MLFs fill another niche in the "continuum of lending" that is very important for early stage heritage businesses. Many heritage businesses lack the track record needed to qualify for a loan from the bank. Even with the leverage offered through an RLF, banks are reluctant to approve such loans. MLFs play a critical role in providing funds to help early stage businesses get a start and develop the business history needed to qualify for

more traditional funding at a later date. Typically an MLF provides smaller loans ranging from a few hundred to as much as \$35,000. The average MLF loan is approximately \$10,000. Though MLFs typically welcome the opportunity to leverage their funds with other lenders, they are often the only lender participating in a loan.

This analysis will look at two case studies of MLFs employing two different micro lending models. The first case study will be Colorado Micro credit, Inc. using the "Grameen" peer lending model. (<http://www.coloradomicrocredit.org>) The Utah Heritage Highway 89 Alliance is encouraged to research other similar MLFs based on this non-traditional model (<http://www.gfusa.org/replications/domestic4000.html>) The second case study will be the Utah Micro enterprise Loan Fund which relies on a more traditional, Mentor-oriented model. (<http://www.umlf.com/>). As with the non-traditional models, the Utah Heritage Highway 89 Alliance is encouraged to research similar, more traditional models. (<http://www.sba.gov/financing/microparticipants.html>)

Colorado Microcredit, Inc.

"The model adopted to achieve this mission was that pioneered by the Grameen Bank in Bangladesh (<http://www.grameen-info.org>) in 1976 to help women gain access to capital a tool to rise out of poverty. Instead of asking for collateral, Colorado Microcredit requires the members of the borrowing circle to guarantee each other's business plans and agree to repay the loans. This model has been used successfully in developing countries for over 20 years by 14 million low-income borrowers, achieving a loan repayment rate of over 97%.

Colorado Microcredit, Inc. (CMC) is a Colorado business operating as a non-profit corporation, which makes small loans without checks or collateral for business startup and expansion projects to people without access to credit. Meetings open to the public and held every Thursday morning from 10:30 to 12:00 noon at the Agape Church, 2501 California St. and every Wednesday evening from 5:30 to 6:45 p.m. at Rocky Mountain SER, 3555 Pecos St. First, attend the basic business class called, "So You Think You Want To Start Your Own Business, " offered in three sessions, at no charge, at the Community Outreach Service Center at 2515 California St. every Thursday at 10:00 in the morning. Each circle group elects their own leader, determines their meeting schedule and by-laws. Loans are made to a Loan Circle of 5 members. The loan requests are approved by the circle members for each member of the circle, after CMC has assisted in the review of each circle member's business plan and budget.

Loans are made to a circle group that has completed the following:

- *A group of 5 people is formed who will work together to start their*

businesses and help each other build their businesses.

- *Using the forms provided by CMC, a business plan is developed by every member, with a Budget and Income Statement. A Balance Sheet is used for loans over \$1,000.*
- *Each Business Plan is reviewed by a representative of CMC and by each member of the Circle before approval is given for Loan #1.*
- *A one-time membership fee of \$50 is paid to CMC.*
- *The circle agrees to repay their loans with interest according to the CMC model.*
- *Loans are repaid monthly, on the 15th of the month, at 12% annual interest.*
- *Loan # 1 is for \$ 500.00 and is repaid in 4 monthly payments of \$ 128.14 (includes interest).*
- *Loan # 2 is for \$ 1,000.00 and is repaid in eight monthly payments of \$ 130.69 (includes interest).*
- *Once all members of a circle have repaid Loan #1, they are eligible to borrow \$1000.00 in a second loan.*
- *\$2,000, \$3,000, \$4,000 and \$5,000 loans are also available for CMC*
- *Members who have successfully completed Loans 1 and 2.*
- *All members must be current on their loans before any new loan is made to a group member. "*

(Source: <http://www.coloradomicrocredit.org/about.html>)

The Grameen Model as represented here by Colorado Microcredit, Inc. has both strengths and challenges that should be considered by the Utah Heritage Highway 89 Alliance.

Strengths include:

27. No requirement for collateral
28. Provides funds for people without access to alternative sources of credit
29. Requires participants to attend business education classes and complete a business plan.
30. Provides for technical oversight from program managers.
5. Places tremendous peer pressure on borrowers.

Challenges include:

- Lack of personal risk by borrower may reduce long term commitment.
- Lack of credit review may result in loans to disreputable entrepreneurs.
- Peer lending is an intensive process that requires a unique set of interpersonal and administrative skills that may be hard to recruit in a rural setting.

- Due to the relative isolation of rural communities and disperse nature of heritage entrepreneurs within these communities, peer lending teams may be comprised of individuals who lack common bonds. Without these bonds, the peer pressure upon which peer lending depends may not exist.

Utah Microenterprise Loan Fund

"Founded in 1993, the Utah Microenterprise Loan Fund (UML Fund) is a private, tax-exempt, non-profit corporation designed to provide financing and management support to entrepreneurs. A Board of Trustees composed of representatives of these entities oversees operations and establishes operating policies.

Many entrepreneurs do not have formal training or education, but they do have drive, creativity, and entrepreneurial spirit to initiate and manage a small enterprise. These same entrepreneurs may be unable to secure conventional credit for business ventures because they do not have sufficient capital, credit history or collateral. The UML Fund is designed to provide a modestly secured form of financing up to \$10, 000 for these entrepreneurs.

WHO DOES THE UML FUND SERVE?

The UML Fund serves owners of start-up and existing firms who do not have access to traditional funding sources, especially those who are socially or economically disadvantaged. The business must be located in Salt Lake County.

WHAT IS REQUIRED OF APPLICANTS?

1. Business Plan

Since most clients lack another means of repayment, loan applicants must demonstrate through a very realistic business plan that a loan issued by the UML Fund can be repaid from business operations.

2. UML Fund Application

The 4-page UMLF application should be completed in its entirety. The application will be considered incomplete if key information is omitted.

3. Personal Financial Statements

Include a personal balance sheet and previous years' income statement for each of the company's principals.

The UML Fund is designed to help people who cannot borrow from traditional lenders such as banks and finance companies. Applicants should exhaust all sources prior to considering the UMLF. If you, or key partners, have sufficient personal wealth that you could borrow money elsewhere, the UML Fund will not approve your loan.

HOW DOES THE UMLF PROCESS WORK?

Step 1: Call and register to attend an Orientation Session

You must attend an orientation meeting to be eligible to apply for a UMLF loan. Held twice per month, you will receive (1) additional details for applying for the microloan and (2) application materials. You do not need to bring anything other than a pen to the Orientation Session.

Step 2: Complete Applicant Requirements as outlined above and submit to

Step 3: UMLF Communicates Your Proposal to the Credit Committee

Upon receipt of a complete application packet, copies of your business plan and application will be forwarded to members of the UMLF Credit Committee. This Committee, composed of small business owners and representatives from participating financial institutions, determines lending policies and approve or denies loans based on the merits of each loan application.

Step 4: Your Personal Presentation

Unique to the lending process, applicants personally present their plan to the credit committee and address any further questions and/or concerns the committee may have. This is a noteworthy opportunity to demonstrate to members of the committee that your idea is sound and you can make it work!

Step 5: The "Yes" or "No" Answer

Immediately following your presentation, your proposal will be discussed, members will vote and the decision will be made. Typically, applicants are informed of the outcome the following day.

Step 6: Funds Disbursed to Borrower

Depending upon what additional information is needed (i.e. verification of insurance, titles, etc.), loans are usually originated and funds disbursed within 10 working days.

Step 7: Borrower assigned an "Account Manager"

In efforts to increase the probability of your success, borrowers are assigned an "Account Manager" that serves as (1) a referral source to business assistance resources, (2) an advocate, supporter and "champion" and (3) a liaison to the UML Fund.

HOW LONG WILL IT TAKE TO GET THE FUNDS?

A credit committee meeting will be scheduled within 30 days of the submission of a complete application packet.

WHAT WILL THIS COST ME?

1. Application Fee

A \$20.00 fee submitted with the application and business proposal package, for the costs involved in the initial management assessment and credit review process by the UML Fund.

2. Loan Origination Fee

For approved applications, there is an origination fee of 1% for each year of the loan (i.e. a \$10,000 loan over 5 years = fee of \$500)

3. Other Fees

For items required for the loan closing such as lien searches, filing fees, recording fees, etc. (typically \$25-50).

WHAT ELSE SHOULD I KNOW?

The UML Fund is staffed with two part-time employees. Please call for an appointment rather than just stopping by. "

(Source: <http://www.uml.org>.)

The Traditional/Mentor Model as represented here by the Utah Microenterprise Loan Fund, has both strengths and challenges that should be considered by the Utah Heritage Highway 89 Alliance. Strengths include:

31. Provides funds for people without access to alternative sources of credit. 2) Requires participants to complete a business plan and provide financial statements.

32. Requires that applicant make presentation to review board.
33. Brings resources of multi-talented review board to the table.
34. Assigns a one-on-one mentor to nurture the business during the loan period.

Challenges include:

35. Providing quality mentoring for geographically isolated entrepreneurs.
36. Providing technical assistance to entrepreneurs not experienced in business plan development and preparation of financial statements.
37. Recruiting a top notch review team

Cost

The cost factors associated with running a micro lending loan fund are basically the same as identified for a revolving loan fund earlier in this analysis with the exception that, since loans are significantly smaller, the cost of capitalizing an MLF is significantly less. For example, \$250,000 in debt capital would fund an average of ten projects in an MLF while it might fund only a single project in an RLF. This reduced capitalization cost is significant since it will open the door to grant resources that would have been unable to fund a full-fledged revolving loan fund. Funding sources will be identified later in this analysis. It is, however, significant that the ratio between administrative overhead and funds available for loans is reduced in an MLF. Some granting agencies look unfavorably on applications where a large proportion of the funds is dedicated to administration.

Expertise

The expertise required for a traditional/mentor MLF is identical to that identified for an RLF on page 45. However, the expertise required for administering a peer review MLF is greater due to the need to manage the group processes required in the Grameen model. However, in either case, expertise need not be a limiting factor for the Utah Heritage Highway 89 Alliance as long as the organization elects to recruit an administrator to run the MLF or partners with an existing MLF or RLF for this service.

Need

The key to Utah Heritage Highway 89 becoming a world class heritage tourism destination will be its success in offering the tourist a variety of ways to "taste" Utah's rural heritage. Tourist need to extend their stay and spend their vacation dollars by staying in bed and breakfast inns, touring art galleries and artisan studios, eating Dutch oven dinners under the stars, listening to cowboy music and poetry or riding horses to see historic sites located off the beaten track. At this time, Utah Heritage Highway 89 is in its infancy in developing entrepreneurs to offer this kind of service to tourists. Consequently, there is a tremendous need for startup capital for heritage businesses and micro-enterprise loan funds are the ideal mechanism for providing this kind of capital.

In the case of revolving loan funds, there are adequate institutions already in place to meet the demand for capital within their specific niche. This is not the case for micro-enterprise loan funds. The Utah Microenterprise Loan Fund is limited to Salt Lake County. The Six County and Five-County Association of Governments RLFs are designed to share risk with banks and can only address micro lending needs to a limited degree. Many startup heritage entrepreneurs bootstrap their operations through credit card debt or second mortgages on their homes, but this is less than an ideal situation. UTFC Financial Solutions does have an MLF, but it has a statewide mission that is largely technology based and has not historically been aggressive in funding early stage heritage businesses. Clearly there is a need for a heritage-based MLF along US Highway 89.

Recommendations

38. The Utah Heritage Highway 89 Alliance should assume a pro-active role in identifying and pursuing the financial resources to establish a micro enterprise loan fund dedicated to heritage entrepreneurs.
39. The Grameen Model, while innovative, is too exotic and administratively complex for a dispersed, conservative rural constituency. The Utah Heritage Highway 89 Alliance should pursue a traditional MLF model such as the Utah Microenterprise Loan Fund that fits better with the needs of its constituency and the capabilities of potential administrative partners.
40. The Utah Heritage Highway 89 Alliance should control the focus and lending criteria of the MLF. Consideration should be given to subcontracting with organizations such as the Utah Microenterprise Loan Fund, the Deseret Certified Development Company (<http://www.deseretcdc.com>) or the Six-County or Five County Associations of Governments for the administration of the fund.
41. To take advantage of economies of scale, the Utah Heritage Highway 89 Alliance should consider partnering with other heritage tourism organizations in the state to establish a single, statewide heritage-based MLF.

Client Preparation

Whether the Utah Heritage Highway 89 Alliance elects to establish an RLF or an MLF, there is a definite role the organization should plan relative to client preparation. The single most common recurring comment received about small rural entrepreneurs seeking financing is that "They are not prepared to request funding." Specifically, rural entrepreneurs seldom approach a lender with a sound business plan, financial statements and projects and a good understanding of basic business principles. This is a need for heritage business approaching a bank, an RLF or an MLF.

Utah Heritage Highway 89 Alliance staff already work closely with their local small business development centers (<http://business.utah.org/sbdclist.html>) and should continue

to refer heritage business to these key partners. In addition, they should co-sponsor entrepreneur education courses with strategic partners. Due to the organization's unique relationship with heritage entrepreneurs, existing entrepreneur education courses could easily be adapted to address specific heritage issues and incorporate member businesses with relevant experience into the curriculum. The most comprehensive entrepreneur education courses appear to be the NxLevel courses (<http://www.nxlevel.org>) available through the regional small business development centers.

"The NxLevel™ Entrepreneurial Training Program is funded by a grant from the U S WEST Foundation to the University of Colorado at Denver. Housed in the

Colorado Center for Community Development, NxLevel™ is the result of listening to the business training needs of business service providers in 36 states. They said they wanted training programs that:

- 1) Provided basic business skills training, including preparing a business plan.*
- 2) Provided practical guidance in bookkeeping, marketing, financial projections and negotiating with lenders.*
- 3) Provided a standardized curriculum that was cost-effective, yet flexible and focused on the community level.*

NxLevel™'s mission was clear-to develop training courses that met all of the above needs. The basic premise behind developing the training courses is that the business or person who plans is the business or person who succeeds. Planning is a learned skill. For this reason, NxLevel™ put a premium on teaching entrepreneurs better

planning skills, from business concept development to the actual preparation of a comprehensive business plan. The result has been the development five turnkey training programs:

- NxLevel™ for Business Start-ups*
- NxLevel™ for Entrepreneurs*
- NxLevel™ for Enterprising Youth*
- NxLevel™ for Micro-Entrepreneurs*
- NxLevel™ for Agricultural Entrepreneurs"*

An example of the curriculum offered during a NxLevel course is the following outline for NxLevel for Entrepreneurs.

- *Introduction/Are You Entrepreneurial Material?*
- *Developing Your Business Concept*
- *Business Start-up Options (1) and Market Research*
- *Business Start-up Options (2) Business Fundamentals*
- *Testing the Idea: Market Research & Analysis*
- *Getting to the Market: Marketing Strategies*
- *Understanding Budgets & Financials*
- *Raising the Money Getting Started & Managing the Future"*

(Source: <http://www.nxlevel.org>)

In addition, Utah State University Extension, through its home-based business specialist Karen Biers (karenb@ext.usu.edu) and certified trainers statewide, offers an outstanding entrepreneur education courses targeted to home-based businesses. Please also be aware that Bim Oliver, director of DCED's Pioneer Communities Program (<http://www.dced.state.ut.us/pioneer/>) has expressed an interest in partnering with the Utah Heritage Highway 89 Alliance and the regional SBDC offices to sponsor NxLevel training along the Utah Heritage Highway.

Community Reinvestment Act

It is important that the Utah Heritage Highway 89 Alliance understand the Community Reinvestment Act (CRA) since it can be an important tool in encouraging banks to participate in targeted lending initiatives includes RLFs and MLF. The following summary of CRA is provided by the Enterprise Foundation (<http://www.enterprisefoundation.org>):

"The Community Reinvestment Act (CRA) was enacted by the Congress in 1977 to help meet the credit needs of low- and moderate-income communities. CPA is a Federal law requiring banks to meet the credit needs of the entire community, including low- and moderate-income neighborhoods. CPA does not require banks to make loans in particular areas or to subsidize unprofitable borrowers, but it does require banks to consider its entire community when making lending decisions. CRA has encouraged lenders to invest in Low Income Housing Tax Credit developments, to make loans for affordable multifamily housing development, to offer small business lending, and to support community development corporations (CDCs).

Under CRA, banks receive ratings from the various bank regulatory agencies on how well the serve low- and moderate-income borrowers and neighborhoods. These ratings are public information. CRA was enacted in 1977 in response to

widespread complaints about banks "redlining" - drawing on a map with a red pen and arbitrarily denying credit to certain neighborhoods. Twelve years later in 1989, CPA ratings were publicly disclosed for the first time after studies revealed disparities between bank loan approval rates for white and black borrowers with similar incomes and credit histories. In recent years, CRA has been modified and improved, eliminating excess paper work and making the actual analysis of bank's lending and investments more meaningful. CRA has made banks consider business opportunities in areas other than wealthy suburbs, resulting in large increases in bank investments in poor communities.

CRA is not a costly government program. While federal agencies monitor a bank's compliance with the law, the Community Reinvestment Act does not involve the provision of federal dollars for community development, but rather encourages private investment for the purpose. Benefits accrue to banks and communities without costing tax payer dollars.

CRA has shown many successful results. According to the National Community Reinvestment Coalition, CRA has encouraged formal commitments of some \$1 trillion in low- and moderate-income neighborhoods since it was enacted. Just as importantly, CPA has shown banks good business opportunities that they otherwise would have missed. Over the last three years, there has been greater CRA activity than ever before; meanwhile, the last three years have also seen the highest levels of bank profitability in history. As CRA commitments continued to grow, the first two quarters of 1998 finished an 18-month run of record earnings for banks. The third quarter, while profits were somewhat down at \$15 billion, still had banks celebrating their second best quarter for domestic earnings on record and the highest level of equity capital since 1941. Although, banks have lost money on lending overseas, commercial real estate ventures, derivatives trading, and a host of other speculative activities; no loss has been attributed to CRA. There is no evidence that "helping to meet the credit needs of the entire community" (the exact words of the statute) has ever caused a bank to fail.

CRA has been successful in maintaining growth in banking while increasing investment in low- and moderate-income neighborhoods. The law has spurred tangible revitalization in poor communities, giving flexible small business and commercial development loans to communities that have gone without them for years.

(Source: <http://www.enterprisefoundation.org/policy/crasummary.asp>)

As an example of how a bank can be encouraged to contribute to a targeted finance program is provided by the Utah Microenterprise Loan Fund. Recently Providian Bank

contributed \$250,000 to this Utah-based MLF for the purpose of make micro enterprise loans to entrepreneurs interested in establishing daycare centers. By doing so, the bank can boast of their involvement in a community-based CRA initiative and the Utah Microenterprise Loan Fund can address a critical finance need for their targeted clientele which primarily includes woman entrepreneurs. (http://investorinfo.providian.com/ire/ir_site.zhtml?ticker=pvn&script=410&layout=6&item id=59458)

RESOURCE INFORMATION

The following list identifies significant resources not previously identified in this analysis. The Utah Heritage Highway 89 Alliance should research these resources in depth to determine the degree to which they can support organization-support capital formation initiatives:

Grants

These resources can provide direct grants to support the creation of an RLF or an MLF:

- USDA Rural Development Grants
(<http://www.rurdev.usda.gov/rbs/busp/rbeg.htm>)
- USDA Forest Service Rural Community Assistance Grants
(http://www.fs.fed.us/r4/health/spf/rca_spf/rca_grant.html)
- Community Development Block Grants
(<http://www.dced.state.ut.us/cdbg/index.html>)
- EDA Title IX Revolving Loan Fund
(http://www.doc.gov/eda/html/Id_fund_prog.htm)

Relending Programs

The following programs provide very low interest loans to organizations that then lend funds to businesses, typically at a higher interest rate to cover operating expenses:

- USDA Intermediary Relending Program
(<http://www.rurdev.usda.gov/rbs/busp/irp.htm>)
- SBA Microloan Program (<http://www.sba.gov/financing/frmicro.html>)
- USDA Rural Economic Development Loans
(<http://www.rurdev.usda.gov/rbs/busp/redl.htm>)
- USDA Rural Development Business and Industry Direct Loans
(http://www.rurdev.usda.gov/rbs/busp/b&i_dir.htm)

Innovative Funding Options

The following programs support capital formation through loans, equity, grants, the sale of bonds and/or deposits:

- Community Development Finance Institutions (<http://www.treas.gov/cdfi>)
- SBA Certified Development Companies
(<http://www.sba.gov/financing/frcdc504.html>)

Leveraging Tools

The following programs leverage bank loans by assuming a portion of the loan at a subordinate position or providing a loan guarantee:

- SBA 7A Guarantees (<http://www.sba.gov/financing/fr7aloan.html>)
- SBA LowDoc (<http://www.sba.gov/financing/frlowdoc.html>)
- SBA Express Loans (<http://www.sba.gov/financing/frfastrak.html>)
- SBA Prequalification Loan (<http://www.sba.gov/financing/frprequal.html>)
- USDA Rural Development Business and Industry Direct Loans
(http://www.rurdev.usda.gov/rbs/busp/b&i_dir.htm)
- USDA Rural Development Business and Industry Guaranteed Loans
(http://www.rurdev.usda.gov/rbs/busp/h&i_gar.htm)

Environmental Assessment

SUMMARY

The Mormon Pioneer National Heritage Area seeks to develop and implement programs, projects, and policies that will preserve the natural, cultural, and historical legacy of the early Mormon Pioneers who tamed the harsh desert lands of central Utah. Central to this is how the land was shaped by the people and how, in turn, the land shaped and continues to shape the people. The Management Plan (MP) will provide a structured, yet flexible, program for ensuring appropriate and coordinated enhancement, preservation, and conservation of important assets of the Heritage Area.

This Environmental Assessment examines three alternatives:

Alternative One: No Action

Alternative Two: The People

Alternative Three: The People and the Land (Preferred)

Alternative Two and Alternative Three show little to no adverse (negative) effect on the environment. The key difference between the Alternatives is the degree of potential for positive effect on the environment. Alternative One, by its very nature, shows no impact from federal action but demonstrates a potential adverse impact from a lack of federal action. At a minimum, Alternative Two: The People should be undertaken to preserve the nationally important story of the intrepid Mormon Pioneers who settled the remote areas of Utah and carried with them that indomitable pioneer spirit that allowed them to survive such harsh environs. In limiting the actions to Alternative Two: The People, an essential link and explanation of the shaping of the people and the pioneer spirit is lost. Alternative Three: The People and the Land integrates the effect of the land and how both man and the land shaped and were shaped through their interaction. Without the story of that interaction, the unique adaptations, and unique traditional products would lose context and meaning.

Given the predominance of State and Federal land ownership throughout the MPNHA, less than 10% of the land area is privately held; most of the potential impacts to the environment are not within the control of the MPNHA. There are no anticipated adverse affects to air quality; surface and ground water resources(including floodplains and wetlands); threatened, endangered, candidate, and species or species of special concern; land uses; recreation; the socio economic environment; ethnographic resources; or environmental justice.

Potential adverse affects may result from construction projects. Specifically the construction of the proposed interpretive centers in Little Denmark and Under the Rim may have an adverse affect on the biotic communities and soils and historic restoration and preservation projects both identified and contemplated for the future have the potential for adverse affects on cultural resources. Those adverse affects on biotic communities and soils, and in rare cases subsurface archeological resources, from new construction projects on undisturbed land should be evaluated in a separate and specific Environmental Assessment when the project solicits federal funding. The adverse affect on soils is likely to be minimal and can be mitigated, but those projects that may adversely affect biotic communities, or in rare cases disturb archeological deposits, may require avoidance. Similarly, historic restoration and preservation projects may adversely affect the resource being restored or preserved. For any historic preservation or

restoration project being undertaken the MPNHA should include the Utah State Historic Preservation Officer early in the design process to ensure compliance with Section 110 (k) and Section 106 of the Historic Preservation act. Since the MPNHA is replete with archeological resources, any project requiring excavation on an undisturbed site should involve the State Historic Preservation Officer prior to ground disturbance. Again, the level of additional review should be determined on a case by case basis.

Public Review and Comment

If you wish to comment on this Environmental Assessment for the Mormon Pioneer National Heritage Area Management Plan, you may mail your comments to the name and address below. Our practice is to allow for comments to be reviewable by the public including names and home addresses of respondents. A respondent may request that we withhold their home address from the record, which we will honor to the extent permissible by law but **if you wish to withhold your name and/or address, you must state this prominently at the beginning of your response.** All submissions from organizations or businesses, in addition to individuals who opt not to withhold their information, and comments from representatives or officials of organizations or businesses will be made available for public inspection in their entirety.

Questions or comments on this Environmental Assessment for the Mormon Pioneer National Heritage Area Management Plan should be submitted in writing to:

The Utah Heritage Highway 89 Alliance
115 W. Main
Mt. Pleasant, UT 84647
Attn: Mr. Monte Bona, Executive Director

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Purpose and Need

Purpose

The Mormon Pioneer National Heritage Area (MPNHA) seeks to develop and implement programs, projects, and policies that will preserve the natural, cultural, historical, and recreational legacy of the early Mormon Pioneers who tamed the harsh desert lands of central Utah. Central to this is how the land was shaped by the people and how, in turn, the land shaped and continues to shape the people. The Management Plan will provide a structured, yet flexible program for ensuring the enhancement, preservation, and conservation of important assets of the Heritage Area. The purpose of this Environmental Assessment is to set the baseline data for the environmentally sensitive attributes of the MPNHA and to provide direction and recommendations for future Environmental Assessments that may be necessary to undertake certain heritage area projects. The MPNHA Management Plan (MP) that is the subject of this EA does not forward a specific project but is instead a broad plan that sets the scope and intent of the MPNHA for funding projects with future federal appropriations. Although the plan will not have a direct effect on the environment, the policies and directives in the plan will influence the manner that future federal dollars will be spent.

Need

This Environmental Assessment is required to ensure the appropriate expenditure of federal funds and compliance with the National Environmental Protection Act of 1966 which requires that all federally funded projects consider the effect of an action on the environment and where necessary recommends methods to mitigate those effects that are determined to be adverse.

The MPNHA MP is needed to ensure that future federal appropriations are used in the most efficient and beneficial manner that supports the authorizing legislation. The MPNHA MP provides a coordinated and prioritized approach to the preservation, enhancement, interpretation, and conservation of the Heritage Area's historic, natural, cultural, and recreational assets, including the support and expansion of heritage related products. Without this prioritized and efficient plan, the expended federal funds would be fragmented, ineffective, and would have no lasting positive effect on the heritage area. The role of the Mormon Pioneers is important to the settlement of the state of Utah and later additional states throughout the American west. The preservation, enhancement, interpretation, and conservation of the early history of the Mormon Pioneers is of national importance. With the approval of the statutorily required MPNHA MP, the likelihood of long lasting and visible positive impact on the heritage area and the history of the Mormon Pioneers is greatly increased.

Background and History

The preservation, enhancement, interpretation, and conservation of the assets of the Mormon Pioneer National Heritage Area has been a focus of the local communities and the state of Utah for an extended period of time and includes the formation of the Utah Heritage Highway 89 Alliance. For the last seven years this body has provided coordination and administration of multiple preservation and interpretation projects. The communities of the MPNHA are rather small but interrelated through a common history and long standing common needs that form the interconnections that are still present through the Alliance structure. The authorization of the MPNHA has broadened and enhanced an already functional heritage area. With that approval of the MP, the MPNHA will further unite these districts and coordinate the ongoing efforts throughout the local communities. The MPNHA comprises a contiguous region that encompasses a

diverse mix of Mormon pioneer heritage resources. Therefore, the residents of the heritage region and their culture are strongly identified with the past, present, and future of the land on which the Mormon pioneers brought their unique colonization effort. The cities and towns within the heritage region have strong ties to Mormon colonization and are culturally connected to each other.

The MPNHA is positioned to foster a close relationship with all levels of government, the private sector, business interests, and local communities and will empower communities to conserve, preserve, and enhance their heritage while strengthening future economic opportunities. Focused programs will be undertaken to conserve, interpret, and develop the historical, cultural, natural and recreational resources within the Heritage Area and to expand, foster, and develop heritage businesses and products relating to the cultural heritage of the MPNHA.

Public Scoping

The review process in general:

In order to draw the greatest number of responses from all of the vast area that the MPNHA encompasses, the MPNHA held public meetings to review the MPNHA MP at the County Seat of each affected county on the following dates: Sanpete County, October 17, 2007 held at Mt. Pleasant City Hall; Piute County Courthouse, October 18, 2007; Kane County, October 29, 2007; held at Kanab Library. Comments also received on Internet site, written submittals and through the distribution of CDs.

The MPNHA MP was also provided for public review at the following public library locations for a 30 day period:

Mt. Pleasant Library
24 East Main Street
Mt. Pleasant, UT 84647

Richfield Library
83 East Center Street
Richfield, UT 84701

Panguitch Library
25 South 200 East
Panguitch, UT 84759

Kanab Library
374 North Main Street
Kanab, UT 84741

Escalante Library
90 North 100 West
Escalante, UT 84726

Gunnison Library
38 W Center Street
Gunnison, UT 84634

Ephraim Library
30 South Main Street
Ephraim, UT 84627

Manti Library
50 South Main Street
Manti, UT 84642

Salina Library
90 West Main Street
Salina, UT 84654

Bicknell Library
79 North 100 West
Bicknell, UT 84715

Comments were collected from the public in the following manner: email, mail, and comments made at public meetings.

Distribution

The draft MP and Environmental Assessment for the Mormon Pioneer National Heritage Area were issued on July 24, 2008. Ten printed copies and 100 CD versions were mailed to numerous stakeholders who had been identified over the last seven years. (A list of stakeholders is below)

Stakeholders

Mayors

Claren Heaton, Alton
Dale Albrecht, Annabella
Shannon Allen, Antimony
Scott Gurney, Aurora
Sherwood Albrecht, Bicknell
Richard Parsons, Big Water
Bill Muse, Boulder
Rod Syrett, Bryce Canyon Town
Alma Fletcher, Cannonville
Darwin Jensen, Centerfield
Dwayne Bayles, Central Valley
Joe Dalton, Circleville
John Baxter, Elsinore
Cliff Birrell, Ephraim
Don Porter, Escalante
Spencer Cox, Fairview
Scott Bartholomew, Fayette
Scott Collard, Fountain Green
Bruce Harris, Glendale
Jake Albrecht, Glenwood
Scott Hermansen, Gunnison
Curtis Whipple, Hanksville

Kevin Eldredge, Hatch
Carlton Johnson, Henrieville
Ray Owens, Joseph
Juel Jensen, Junction
Kim Lawson, Kanab
Carlos Jessen, Kingston
Harlow Brown, Koosharem
Jeff Olsen, Loa
Kent Chappel, Lyman
Natasha Madsen, Manti
Gary James, Marysville
John Christensen, Mayfield
Robert Nilsson, Monroe
Ron Pipher, Moroni
Chesley Christensen, Mt. Pleasant
Brad Adair, Orderville
Arthur Cooper, Panguitch
Paul Christensen, Redmond
Brad Ramsey, Richfield
Jim Reynolds, Salina
Chad Houchlin, Sigurd
Eldon Barnes, Spring City
Garry Bringham, Sterling
J. Fred Hansen, Torrey

Lowell Mecham, Tropic
Bryon Davis, Wales
County Commissioners
Garfield County
D. Maloy Dodds
H. Dell LaFevre
Clare Ramsey
Kane County
Duke Cox
Daniel Hulet
Mark Habbeshaw
Piute County
Kay Blackwell
Paul Morgan
Tarval Torgerson
Sanpete County
Mark Anderson
Dwight Inouye
Claudia Jarrett
Sevier County
Ivan Cowley
Gary Mason
Ralph Okerlund
Wayne County
De Rae Filmore

Thomas Jeffrey
Stanley Wood

**Partnership Advisory
Group**

**National Parks and
Monuments**

Rene Berkhoudt
Manager, Grand Staircase-
Escalante National
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Superintendent, Capitol Reef
National Park

Eddie Lopez
Superintendent, Bryce
Canyon National Park

Kitty Roberts
Superintendent, Glen Canyon
National Recreation Area

Kate Cannon
Superintendent, Canyonlands
National Park

Cordell Roy
Utah State Coordinator,
National Park Service

Jock Whitworth
Superintendent, Zion National
Park

National Forests

Allen Henningson
Supervisor, Fishlake National
Forest

Robert Macwhorter
Supervisor, Dixie National
Forest

Rod Player
Acting Supervisor, Manti-
LaSal National Forest

**Bureau of Land
Management**

Selma Sierra
Director, Utah State Office

**Resource Conservation
and Development
Coordinators**

Linda Lind
Panoramaland

Vicki Tyler
Color Country

Utah State Officials

Leonard Blackham
Commissioner, Utah
Department of Agriculture

Dan Burke
Director, Utah Museum
Services

Palmer DePaulis
Director, Utah Department of
Community and Culture

Beverly Evans
Rural Executive, Governor's
Office of Economic
Development

Gael Hill
State Coordinator, Scenic
Byways, Utah Travel Office

Margaret Hunt
Director, Utah Arts Council

Ally Isom
Deputy Director, Utah
Department of Community
and Culture

Gayle McKeachnie
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Governor's Office of
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Department of Natural
Resources

Mary Tullius
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Parks and Recreation

Leigh Von der Esch
Manager, Utah Office of
Travel

**Utah State Park
Superintendents**

Aaron Farmer, Kodachrome
Basin

Kendall Farnsworth,
Escalante

Michael Franklin, Coral Pink
Sand Dunes

Bob Hanover, Fremont
Indian

Shon Tripp, Palisade

Kaymar Willis, Piute and
Otter Creek

Educational Institutions

Noel Cockett
Vice President, Utah State
University Extension Service

Scott Wyatt
President, Snow College

**Foundations and
Nonprofit Organizations**

Cynthia Buckingham
Executive Director, Utah
Humanities Council

Lisa Eccles
Executive Director, George S.
and Dolores Doré Eccles
Foundation

Richard Turley
Managing Director, Family
and Church History
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The Church of Jesus Christ of
Latter-day Saints

Regions

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Travel Director, Sevier
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Kevin Christensen
Economic Development
Director, Sanpete County

Russ Cowley
Six Counties Association of
Governments

Bruce Fullmer
Travel Director, Garfield
County

Ted Hallisee
Travel Director, Kane County

John Holland
Coordinator, Scenic Byway
12

Jody King
Economic Development
Director, Wayne County

Malcom Nash
Economic Development
Director, Sevier County

Ken Sizemore
Five Counties Association of
Governments

Jo Sojourner
Travel Director, Wayne
County

Mel Terry
Economic Development
Director, Piute County

Relationship of proposed action to previous and current planning efforts

The Management Plan of the Mormon Pioneer National Heritage Area is a continuation, expansion, and enhancement of the Utah Heritage Highway 89 Alliance plans and projects. The Management Plan will provide vision and guidance for the preservation, enhancement, interpretation, and conservation of the Heritage Area resources and heritage products. The policies and directives of the Management Plan will affect the types and general intensity of heritage development, resulting project partnerships, and the management of the proposed and potential projects and venues within the Heritage Area. Additional plans and efforts associated with the MPNHA are in the supporting documents of the MP.

Impact Topics

Physiography and Soils

The geology of the Mormon Pioneer National Heritage Area is a product of both the actions of rivers and water bodies and historic geologic activity. Mivida is the generally representative soil type for the state of Utah and occurs most prevalently in the western end of the Boulder Loop District and throughout the Headwaters (Garfield County) and Under the Rim (Kane County) heritage districts. Mivida soil is composed of mostly fine sandy loam with a pinkish-brown sub-soil and yellowish-red topsoil. In general the soils are well drained and consists alluvial soils, sandy loams, and rocky slopes. The following geologic types are found within each Heritage district:

Little Denmark

The geology of the area is varied with a small area formed at the north from Middle Tertiary volcanic rocks and Early Tertiary river and lake basin fill. The eastern half of Little Denmark is predominately Cretaceous marine, coastal plain and coal formations while the western half to the south of the fore mentioned Middle Tertiary volcanic rock formations is composed of Quaternary alluvial, sand dune, glacial, and landslide formation which gives way to early tertiary formations and Jurassic sand dune, river, marine, and evaporite formations.

Sevier Valley

The Sevier Valley district is fairly evenly split in its geographic formations to the north and the south. The north, from west to east is composed of a band of Jurassic sand dune, river, marine, and evaporite formations followed by a band of Early Tertiary river and lake basin fill formations and lastly composed of a larger group of Cretaceous marine, coastal plain and coal formations. The southern half of the Sevier Valley is formed predominately by Middle Tertiary volcanic rocks and occasional intrusive rocks with interspersed valleys of Quaternary alluvial, sand dune, glacial, and landslide formations.

Headwaters

Piute county and the northwestern section of the Headwaters district are formed by a continuation of the Middle Tertiary volcanic rocks and interspersed valleys of Quaternary alluvial, sand dune, glacial, and landslide formations seen in the southern half of Sevier Valley. Each of the Middle Tertiary volcanic rock formation is ringed by Early Tertiary river and lake basin fill at the southern border of the district. To the east of these formations the Sevier Valley is composed mostly of Cretaceous marine, coastal plain and coal formations which give way to Jurassic sand dune, river, marine, and evaporite formations, a small Permian marine, river, and sand dune formation, and then equal shares of Cretaceous marine, coastal plain and coal and Jurassic sand dune, river, marine, and evaporite formations with some notable intrusive rock formations as you approach the Colorado River.

Boulder Loop

Boulder Loop begins in the west with Middle Tertiary volcanic rocks interspersed with Quaternary-Tertiary basalt formations, followed by Quaternary alluvial, sand dune, glacial, and landslide formations, a narrow band of Permian marine, river, and sand dune formations and giving way to the predominate Jurassic sand dune, river, marine, and evaporite formations that surround an area of Cretaceous marine, coastal plain and coal formations.

Under the Rim

This district consists predominately of large areas of Jurassic sand dune, river, marine, and evaporite formations and Cretaceous marine, coastal plain and coal formations with small areas of Permian marine, river, and sand dune formations to the south and . Quaternary-Tertiary basalt formations and Early Tertiary river and lake basin fill formations to the northwest.

Air Quality

Section 118 of the 1963 Clean Air Act (42 USC 7401 et seq.) requires federally funded projects to meet all federal, state, and local air pollution standards. To date the MPNHA has not violated any of the Clean Air standards. However the area is very arid and contains a large amount of well drained sandy soils. Any proposed project may temporarily affect the air quality by dust and vehicle emissions but said affects would be temporary and would cease at completion of the project. Due to the fine particulate matter that is present in the soils throughout the heritage area, it is recommended that construction always include paved roadways, access, and parking areas to prevent any long term particulate disturbances.

Surface and Ground Water Resources

The MPNHA contains three watersheds: the Sevier River Basin, the West Colorado River Basin, and the Virgin River and Kanab Creek Basin. In general any federal action must comply with the Clean Water Act of 1977 which requires federal projects to restore or maintain the chemical, physical and biological integrity of the nation's waterways and to prevent, control, and abate water pollution. Should a federally funded action affect a national waterway, Section 404 of the Clean Water Act authorizes the US Army Corps of Engineers to prohibit or regulate the removal or discharge of fill into US waters. Any action that may have an affect on a US water must receive a Section 404 permit from the US Corps of Engineers that will ensure that the action will remain consistent with the Clean Water Act.

In addition Executive Order 11990, Protection of Wetlands, requires federal actions to avoid where possible adverse impacts on wetlands. Any action which may have an adverse affect on a wetland must address the mitigation of those impacts through a Statement of Findings. Adhering to the Statement of Findings will ensure the action will remain consistent with this Executive Order.

Finally, Executive Order 11988, Floodplain Management, requires all federal agencies to avoid construction within the 100-year floodplain unless no other practical alternative exists. If construction is required within the 100-year flood plain, that construction may require a Statement of Findings listing the potential impact of the construction and measures to be undertaken to remain consistent with this Executive Order.

Surface Water Resources

Rivers within the MPNHA remain uncontrolled with the exception of the Colorado River on the far eastern boundary. That section of the Colorado River is in federal stewardship and has no private property adjoining the River. The remaining surface waters are generally uncontrolled with the exception of some reservoirs. All of the MPNHA has numerous lakes and ponds with a few major rivers located in each district. With the exception of Little Denmark, the districts are dependent on snow pack and run off within the waterways to provide water to recharge wells or supply water via diversion. Little Denmark has the sole aquifer in the Heritage Area, known as the Principal Valley-Fill Aquifer.

The water bodies (lakes, ponds, and reservoirs) and the streams, creeks, and rivers that supply them, provide important fish and riparian habitat within each heritage district. The tables in each district were provided by Onlineutah.com. The majority of these water bodies and the streams, creeks, and rivers that supply them are controlled by the state or federal government.

Little Denmark

Surface Water

Little Denmark is mostly within the Sevier River Basin watershed with the exception of the far eastern half, over the Wasatch Plateau, which is within the West Colorado River Basin. The major waterways in the district consist of the Sevier River on the west and the Sanpitch River which flows through the center. These rivers are within the Sevier River Basin and recharge the Principal Valley-Fill Aquifer. The Sevier River Basin is currently drier than normal while the West Colorado River Basin is in a Phase II Drought condition.

The following table, provided by Utahonline.com, lists the water bodies within Little Denmark. These water bodies, in conjunction with the creeks, streams, and rivers that supply them provide habitat for many fish and riparian species. As mentioned before

most of the waterways and water bodies throughout Little Denmark are on State or Federal land.

Lake or Reservoir	Elevation		Location	Nearby Towns
Academy Mill Reservoir	8,806'	2,684.07m	39.28281N 111.37119W	Castle Dale Clawson Ferron
Beaver Dam Reservoir	8,747'	2,666.09m	39.65421N 111.29503W	Castle Dale Clawson Ferron
Blind Lake	8,115'	2,473.45m	39.76350N 111.56803W	Fairview Milburn Indianola
Blue Lake	9,255'	2,820.92m	39.33579N 111.33777W	Castle Dale Clawson Ferron
Blue Lake	9,474'	2,887.68m	39.08403N 111.34408W	Castle Dale Clawson Ferron
Blue Lake	10,272'	3,130.91m	39.05529N 111.50505W	Axtell Mayfield Sterling
Brush Reservoir	8,989'	2,739.85m	39.07450N 111.43927W	Castle Dale Clawson Ferron
Cottonwood Reservoir	7,342'	2,237.84m	39.25319N 111.55734W	Ephraim Manti Sterling
Cove Lake	9,395'	2,863.60m	39.21296N 111.42466W	Castle Dale Clawson Ferron
Deep Lake	9,323'	2,841.65m	39.10979N 111.52008W	Manti Mayfield Sterling
Duck Fork Reservoir	4,990'	1,520.95m	39.64064N 111.30934W	Ferron Mayfield Molen
Emerald Lake	10,148'	3,093.11m	39.07474N 111.49758W	Axtell Mayfield Sterling
Emery Reservoir	9,439'	2,877.01m	39.09434N 111.47294W	Ephraim Manti Sterling
Fairview Lakes	8,980'	2,737.10m	39.64064N 111.30934W	Fairview Milburn Huntington
Grassy Lake	8,940'	2,724.91m	39.32186N 111.33111W	Castle Dale Clawson Ferron
Grass Flat Reservoir	8776'	2,674.92m	39.28149N 111.35976W	Castle Dale Clawson Ferron
Gunnison Reservoir	5,381'	1,640.13m	39.23467N 111.69513W	Gunnison Manti Sterling
Hartney Lake	7,838'	2,389.02m	39.76218N 111.55363W	Fairview Milburn Indianola
Henningson Reservoir	10,016'	3,052.88m	39.05700N 111.49414W	Axtell Mayfield Sterling
Island Lake	10,325'	3,147.06m	39.06653N 111.51370W	Ferron Manti Mayfield
Jet Fox Reservoir	10,108'	3,080.92m	39.24327N 111.46523W	Manti Mayfield Sterling
John August Lake	10,308'	3,141.88m	39.28936N 111.44551W	Castle Dale Clawson Ferron
Lake Hill	8,397'	2,559.41m	39.32572N 111.50010W	Fairview Milburn Mount Pleasant
Julius Flat Reservoir	8,875'	2,705.10m	39.04532N 111.45357W	Castle Dale Clawson Ferron
Little Madsen Reservoir	8,794'	2,680.41m	39.55856N 111.25177W	Clear Creek Mount Pleasant
Lizard Lake	9,393'	2,862.99m	39.14204N 111.36390W	Castle Dale Clawson Ferron
Loggers Fork Reservoir	10,036'	3,058.97m	39.26423N 111.46216W	Castle Dale Clawson Ferron
Lower Gooseberry Reservoir	5,381'	1,640.13m	39.22957N 111.69924W	Clear Creek Fairview Scofield
Lower Sixmile Pond	8,986'	2,738.93m	39.19058N 111.54521W	Manti Mayfield Sterling
Madsen Lake	7,987'	2,434.44m	39.76531N 111.56544W	Castle Dale Clawson Ferron
Miller Flat Reservoir	8,468'	2,581.05m	39.53667N 111.24950W	Clear Creek Mount Pleasant
New Canyon Reservoir	8,858'	2,699.92m	39.36287N 111.46103W	Castle Dale Clawson Ferron
Nine Mile Reservoir	5,384'	1,641.04m	39.17339N 111.71086W	Gunnison Mayfield Sterling
Oakley Lakes	9,945'	3,031.24m	39.11321N 111.48103W	Ephraim Manti Sterling
Olsen Sough	5,076'	1,547.16m	39.07138N 111.83797W	Axtell Centerfield Redmond
Palisade Lake	5,873'	1,790.09m	39.20697N 111.66788W	Manti Mayfield Sterling
Patton Reservoir	8,273'	2,521.61m	39.23926N 111.56343W	Ephraim Manti Sterling
Petes Reservoir	8,867'	2,702.66m	39.26653N 111.51173W	Ephraim Manti Sterling
Petes Hole Reservoir	8,865'	2,702.05m	39.29107N 111.38702W	Castle Dale Clawson Ferron
Rolfson Reservoir	8,848'	2,696.87m	39.56115N 111.26130W	Clear Creek Mount Pleasant
Rush Pond	9,421'	2,871.52m	39.14204N 111.42015W	Castle Dale Clawson Ferron
Slide Lake	8,586'	2,617.01m	39.28310N 111.34952W	Castle Dale Clawson Ferron
Soup Bowl Lake	8,750'	2,667.00m	39.29591N 111.38652W	Castle Dale Clawson Ferron
Spinners Reservoir	9,619'	2,931.87m	39.09107N 111.44585W	Ephraim Manti Sterling
Town Reservoir	7,746'	2,360.98m	39.13579N 111.60581W	Castle Dale Clawson Ferron
Twin Lake	7,208'	2,197.00m	39.11971N 111.60600W	Axtell Mayfield Sterling
Upper Sixmile Pond	8,986'	2,738.93m	39.18887N 111.54025W	Manti Mayfield Sterling
Wales Reservoir	5,514'	1,680.67m	39.50050N 111.61476W	Chester Moroni Wales
Willow Lake	9,642'	2,938.88m	39.13525N 111.38635W	Castle Dale Clawson Ferron
Woods Lake	9,413'	2,869.08m	39.06609N 111.55954W	Axtell Mayfield Sterling
WPA Ponds	9,305'	2,836.16m	39.11638N 111.51989W	Ephraim Manti Sterling
Wrigley Springs Reservoir	8,901'	2,713.02m	39.09038N 111.29963W	Axtell Mayfield Sterling
Yearns Reservoir	7,470'	2,276.86m	39.25480N 111.54295W	Ephraim Manti Sterling
Yuba Reservoir	4,990'	1,520.95m	39.35546N 111.95313W	Gunnison Mills Scipio

Ground Water

Little Denmark possesses a large aquifer that occurs in the valley areas and underlies most privately held property in the area. The water quality of the aquifer ranges from Class I Pristine Quality to Class II Drinking Water Quality. For a desert environment, this water resource is very valuable and its recharge areas should be protected.

Sevier Valley

The Sevier Valley heritage district is almost entirely within the Sevier River Basin with the exception of the far eastern section which is contained within the West Colorado River Basin. The Sevier River Basin is currently drier than normal while the West Colorado River Basin is in a Phase II Drought condition.

Surface Water

The Sevier Valley heritage district contains two notable waterways – the Sevier River and the headwaters of Otter Creek, both of which are under the stewardship of the federal government. The Sevier River provides needed surface water for wildlife and fish and supports important riparian habitat as does Otter Creek, albeit to a lesser degree. Throughout the Sevier Valley are multiple lakes, ponds and reservoirs as shown on the following list provided by Onlineutah.com:

Lake or Reservoir	Elevation	Location	Nearby Towns
Abes Reservoir	8,763' 2,670.96m	38.78906N 111.65799W	Sigurd Venice Vermillion
Acord Lakes	7,969' 2,428.95m	38.90555N 111.47284W	Emery, Salina
Annabella Reservoir	9,826' 2,994.96m	38.64774N 112.00189W	Annabella Austin Central
Bear Valley Reservoir	7,522' 2,292.71m	38.66028N 111.88702W	Annabella Austin Central
Big Lake	9,326' 2,842.56m	38.65156N 111.96089W	Annabella Central Richfield
Boobe Hole Reservoir	7,231' 2,204.01m	38.67830N 111.80578W	Annabella Austin Central
Broadheaf Lakes	9,871' 3,008.68m	38.71120N 111.73857W	Sigurd Venice Vermillion
Crater Lakes	9,514' 2,899.87m	38.57294N 111.65867W	Burrville Greenwich Koosharem
Davis Hollow Reservoir	7,992' 2,435.96m	38.68765N 111.94419W	Annabella Austin Central
Deep Lake	9,912' 3,021.18m	38.64332N 111.99250W	Annabella Austin Central
Duck Lake	9,826' 2,994.96m	38.65412N 112.00625W	Annabella Austin Central
Emerald Lakes	10,256' 3,126.03m	38.72210N 111.58856W	Salina Koosharem
Farnsworth Reservoir	9,532' 2,905.35m	38.77113N 111.66064W	Glenwood Sigurd Venice
Farrell Pond	8,322' 2,536.55m	38.54258N 111.45846W	Fremont Loa Lyman
Fish Lake	8,848' 2,696.87m	38.54605N 111.71269W	Burrville Koosharem Loa
Floating Island Lake	8,307' 2,531.97m	38.53501N 111.45840W	Fremont Loa Lyman
Forsythe Reservoir	7,995' 2,436.88m	38.52377N 111.53143W	Fremont Loa Lyman
Gardener Hollow Reservoir	8,375' 2,552.70m	38.65905N 112.35225W	Elsinore Joseph Sevier
Gates Lake	9,685' 2,951.99m	38.76756N 111.68452W	Glenwood Sigurd Venice
Hamilton Reservoir	9,754' 2,973.02m	38.77220N 111.67260W	Glenwood Sigurd Venice
Harves Reservoir	9,506' 2,897.43m	38.76932N 111.65927W	Glenwood Sigurd Venice
Hunts Lake	9,393' 2,862.99m	38.54547N 112.08945W	Greenwich Koosharem Monroe
Jeffry Reservoir	5,968' 1,819.05m	38.58437N 111.31471W	Fremont Loa Lyman
Johnson Valley Res.	8,825' 2,689.86m	38.60970N 111.64411W	Burrville Fremont Loa
Koosharem Reservoir	7,001' 2,133.90m	38.60016N 111.84155W	Burrville Greenwich Koosharem
Lake Louise	9,831' 2,996.49m	38.63198N 111.68211W	Burrville Koosharem Monroe
Lost Creek Reservoir	9,708' 2,959.00m	38.70742N 111.69839W	Salina Koosharem
Lower Hunts Lake	8,351' 2,545.38m	38.53330N 112.10656W	Greenwich Koosharem Monroe
Magleby Reservoir	9,354' 2,851.10m	38.57740N 111.99073W	Burrville Koosharem Monroe
Meeks Lake	8,340' 2,542.03m	38.53828N 111.45056W	Fremont Loa Lyman
Mill Meadow Reservoir	7,687' 2,343.00m	38.51088N 111.56481W	Fremont Loa Lyman
Morrell Pond	7,982' 2,432.91m	38.54703N 111.43681W	Fremont Loa Lyman
Mud Lake	9,951' 3,033.06m	38.59459N 112.01639W	Austin Monroe Sevier
Mud Lake	7,826' 2,385.36m	38.80529N 111.54552W	Salina Koosharem
Oles Pond	9,314' 2,838.91m	38.61160N 111.48074W	Burrville Fremont Koosharem
Paradise Valley Lake	7,920' 2,414.02m	38.63135N 111.43878W	Burrville Fremont Loa
Rex Reservoir	7,230' 2,203.70m	38.78795N 111.77467W	Sigurd Venice Vermillion
Redmond Lake	5,116' 1,559.36m	38.99547N 111.87217W	Redmond Salina Aurora

Rocky Ford Reservoir	5,210'	1,588.01m	38.85590N 111.95845W	Aurora, Richfield, Sigurd
Saleratus Reservoir	8,061'	2,456.99m	38.82978N 111.46337W	Emery Fremont
Salina Canyon Dam	5,407'	1,648.05m	38.93041N 111.81276W	Redmond Salina Aurora
Salina Canyon Dam #4	6,848'	2,087.27m	38.88266N 111.54352W	Emery Moore Salina
Salina Reservoir	9,716'	2,961.44m	38.76287N 111.65677W	Glenwood Sigurd Venice
Sargent Lake	8,196'	2,498.14m	38.51834N 112.33493W	Joseph Monroe Sevier
Scrub Flat Reservoir	8,923'	2,719.73m	38.61120N 112.03761W	Austin Monroe Sevier
Sheep Valley Reservoir	9,206'	2,805.99m	38.73543N 111.54146W	Salina Koosharem
Skumpah Reservoir	7,894'	2,406.09m	38.93770N 111.48340W	Emery, Salina
Slide Lake	10,220'	3,115.06m	39.01942N 111.50179W	Axtell Mayfield Redmond
Snow Fence Pond	9,541'	2,908.10m	38.59771N 111.54446W	Burrville Fremont Koosharem
Snow Lake	11,332'	3,453.99m	38.63779N 111.71110W	Burrville Koosharem Monroe
Soldier Canyon Dam #1	5,720'	1,743.46m	38.90685N 111.80851W	Redmond Salina Aurora
Soldier Canyon Dam #2	6,196'	1,888.54m	38.88237N 111.77784W	Aurora Salina Sigurd
Solomon Reservoir	8,229'	2,508.20m	38.54700N 111.45638W	Fremont Loa Lyman
Spring Reservoir	8,250'	2,514.60m	38.51673N 111.61652W	Burrville Fremont Koosharem
Three Creeks Reservoir	6,837'	2,083.92m	38.62832N 112.43472W	Elsinore Joseph Sevier
Tidwell Pond	9,190'	2,801.11m	38.61909N 111.54903W	Burrville Fremont Loa
Twin Lake	8,281'	2,524.05m	38.52411N 112.32348W	Joseph Monroe Sevier
Twin Ponds	7,625'	2,324.10m	38.81873N 111.78216W	Sigurd Venice Vermillion
Twin Ponds	8,945'	2,726.44m	38.78652N 111.64811W	Glenwood Sigurd Venice
Washburn Reservoir	9,189'	2,800.81m	38.60705N 112.03077W	Austin Monroe Sevier
Willies Flat Reservoir	10,297'	3,138.53m	38.66604N 111.53406W	Burrville Fremont Loa
Willow Creek Reservoir	5,722'	1,744.07m	39.01834N 111.75072W	Axtell Mayfield Redmond
Willow Lake	7,629'	2,325.32m	38.52108N 112.34470W	Joseph Monroe Sevier
Wood Hollow Reservoir	7,531'	2,295.45m	38.56648N 111.89723W	Burrville Koosharem Monroe

Headwaters

Surface Water

The Headwaters heritage district consists of two counties – Piute and Garfield. Piute County borders the Sevier Valley heritage district and contains the main stem of the Sevier River, which splits in about the center of the county into main and East Fork just before the Piute Reservoir. Otter Creek also flows into the Headwaters district from the Sevier Valley where it joins the East Fork of the Sevier River. The county is 95% within the Sevier River Basin watershed which is currently drier than normal.

Fishing is plentiful and the string of important riparian habitat is intensified where the rivers join within Piute County. Additionally there are multiple lakes, ponds, and reservoirs in this section of the Headwaters as shown in the following table provided by Onlineutah.com:

Lake or Reservoir	Elevation		Location	Nearby Towns
Barney Lake	10,121'	3,084.88m	38.48514N 112.08815W	Burrville Koosharem Marysvale
Burnt Flat Reservoir	8,885'	2,708.15m	38.45436N 112.01260W	Burrville Greenwich Koosharem
Butte Reservoir	9,203'	2,805.07m	38.19596N 111.84502W	Angle Circleville Kingston
Clause Pond	9,310'	2,837.69m	38.20441N 111.90558W	Angle Circleville Kingston
Death Hollow Reservoir	9,124'	2,781.00m	38.15485N 111.86380W	Angle Circleville Kingston
Dog Lake	9,549'	2,910.54m	38.30710N 111.89558W	Angle Greenwich
Dry Lake	7,529'	2,294.84m	38.26604N 112.13153W	Angle Junction Kingston
Dry Lake	9,912'	3,021.18m	38.38242N 112.01862W	Alunite Greenwich Koosharem
Dry Wash Pond	9,171'	2,795.32m	38.19693N 111.89114W	Angle Circleville Kingston
Durkee Reservoir	6,075'	1,851.66m	38.41697N 112.18296W	Alunite Marysvale Thompsonville
Fishlake Reservoir	8,478'	2,584.09m	38.48858N 111.81876W	Burrville Koosharem Marysvale
Forshen Reservoir	9,199'	2,803.86m	38.23535N 111.87168W	Angle Circleville Kingston
Forshen Spring Reservoir	9,288'	2,830.98m	38.22953N 111.87571W	Angle Circleville Kingston
Lower box Creek Reservoir	8,471'	2,581.96m	38.48105N 111.98738W	Burrville Koosharem Marysvale
Manning Meadow Reservoir	9,738'	2,968.14m	38.48796N 112.07156W	Burrville Koosharem Marysvale
Middle Spring Lake	7,670'	2,337.82m	38.40993N 112.11681W	Burrville Greenwich Koosharem
Mud Lake	9,592'	2,923.64m	38.28330N 111.88780W	Angle Greenwich
Nicks Pond	9,208'	2,806.60m	38.21072N 111.88370W	Angle Circleville Kingston
Otter Creek Reservoir	6,378'	1,944.01m	38.21503N 111.98260W	Antimony Junction Kingston

Parker Lake	9,213'	2,808.12m	38.28286N 111.85599W	Angle Greenwich
Pine Point Reservoir	8,845'	2,695.96m	38.35119N 111.85496W	Angle Greenwich Loa
Piute Reservoir	5,974'	1,820.88m	38.29755N 112.20687W	Antimony Junction Kingston
Pole Canyon Reservoir	8,538'	2,602.38m	38.27792N 112.05237W	Antimony Junction Kingston
Rocky Ford	6,675'	2,034.54m	38.17621N 112.16085W	Angle Circleville Kingston
Smiths Reservoir	7,288'	2,221.38m	38.15373N 112.18943W	Angle Circleville Kingston
Taylor Pond	5,814'	1,772.11m	38.45935N 112.22469W	Alunite Marysvale Sevier
Tuft Reservoir	9,447'	2,879.45m	38.37372N 112.05396W	Alunite Greenwich Koosharem
Twin Lakes	10,112'	3,082.14m	38.34077N 112.38388W	Alunite Greenwich Koosharem
Upper Box Creek Reservoir	8,851'	2,697.78m	38.47809N 111.99854W	Burrville Koosharem Marysvale
Voyles Pond	9,721'	2,962.96m	38.38212N 112.03222W	Alunite Greenwich Koosharem
W. Cedar Grove Reservoir	8,505'	2,592.32m	38.38110N 111.84820W	Greenwich Koosharem Loa
Wills Reservoir	9,183'	2,798.98m	38.42176N 112.02272W	Burrville Greenwich Koosharem
Windy Ridge Reservoir	8,273'	2,521.61m	38.45353N 111.83430W	?
Wood Pond	9,171'	2,795.32m	38.19693N 111.89114W	Angle Circleville Kingston

The Headwaters district continues into Garfield County where the Sevier River and the East Fork of the Sevier River continue their southward journey on the western half and the headwaters of the Escalante River and the continuation of the Dirty Devil River are on the east and flow south to reach the Colorado River on the far eastern boundary of the Headwaters district. This county is contained primarily within the West Colorado River Basin watershed with the western 1/3 being with the end of the Sevier River Basin watershed. This leaves the majority of the county in a Phase II drought while the western 1/3 is only drier than normal. The Sevier River also provides the only significant white water boating opportunity within the MPNHA outside of the Colorado River.

As shown in other heritage districts, this section of the Headwaters district has multiple lakes, ponds, and reservoirs as shown in the following table provided by Onlineutah.com:

Barker Reservoir	9,567'	2,916.02m	37.92118N 111.82815W	Boulder Escalante Osiris
Barney Lake	9,946'	3,031.54m	38.02264N 111.61801W	Antimony Boulder Escalante
Bear Lake	9,682'	2,951.07m	38.02787N 111.51475W	Antimony Boulder Grover
Bess Lake	11,079'	3,376.88m	38.13574N 111.45406W	Bicknell Grover Teasdale
Big Lake	9,882'	3,012.03m	38.08087N 111.69302W	Boulder Escalante Osiris
Big Lake	10,937'	3,333.60m	38.10649N 111.42491W	Antimony Teasdale Torrey
Blue Lake	9,641'	2,938.58m	37.93569N 111.82458W	Boulder Escalante Osiris
Blue Lake	10,529'	3,209.24m	38.08453N 111.57002W	Boulder Escalante Osiris
Bowns Reservoir	7,415'	2,260.09m	38.10999N 111.26994W	Antimony Boulder Grover
Brush Corral Reservoir	5,209'	1,587.70m	37.75319N 110.93413W	Bullfrog Halls Crossing Ticaboo
Butterfly Lake	9,724'	2,963.88m	38.08723N 111.74267W	Boulder Escalante Osiris
Cave Flat Reservoir	5,978'	1,822.09m	37.94517N 110.89534W	Boulder Egglog Notom
Chris Lake	9,508'	2,898.04m	38.02867N 111.40481W	Antimony Boulder Grover
Crater Lake	10,985'	3,348.23m	38.10569N 111.46993W	Antimony Teasdale Torrey
Crescent Lake	10,876'	3,315.00m	38.07546N 111.48460W	Antimony Boulder Grover
Cuddyback Lake	9,554'	2,912.06m	38.00718N 111.52540W	Antimony Boulder Grover
Cyclone Lake	9,869'	3,008.07m	37.98411N 111.71674W	Antimony Boulder Escalante
Deer Creek Lake	9,947'	3,031.85m	38.03933N 111.38551W	Antimony Boulder Grover
Divide Lake	9,553'	2,911.75m	38.04522N 111.46229W	Antimony Teasdale Torrey
Dry Lake	9,875'	3,009.90m	37.99000N 111.72096W	Boulder Escalante Loa
Dry Lake Flat	9,141'	2,786.18m	38.06252N 110.82476W	Antimony Boulder Escalante
East Boulder Lakes	11,030'	3,361.94m	38.12425N 111.47724W	Bicknell Grover Teasdale
Elbow Lake	11,137'	3,394.56m	38.14102N 111.48939W	Bicknell Grover Teasdale
Fish Creek Lake	9,977'	3,040.99m	38.16384N 111.43794W	Bicknell Grover Teasdale
Flat Lake	9,626'	2,934.00m	37.93203N 111.82692W	Boulder Escalante Osiris
Grass Lake	9,946'	3,031.54m	38.05572N 111.43857W	Antimony Boulder Grover
Green Lake	9,863'	3,006.24m	37.99286N 111.71674W	Boulder Escalante Loa
Halfmoon Lake	10,824'	3,299.16m	38.07912N 111.47515W	Antimony Boulder Grover
Hay Lake	9800'	2,987.04m	38.05827N 111.76658W	Boulder Escalante Osiris
Horse Lake	10,078'	3,071.77m	37.85798N 111.88208W	Boulder Escalante Osiris
Horseshoe Lake	10,797'	3,290.93m	38.08803N 111.46571W	Antimony Boulder Grover

Jacobs Reservoir	10,075'	3,071.77m	38.04538N 111.60378W	Antimony Boulder Escalante
Joe Lay Reservoir	9,465'	2,884.93m	37.92973N 111.82026W	Boulder Escalante Osiris
Lake Philo	9,915'	3,022.09m	38.04076N 111.73784W	Boulder Escalante Osiris
Lake Powell	3,701'	1,128.06m	37.56727N 110.77758W	Bullfrog Halls Crossing Ticaboo
Long Canyon Reservoir	4,776'	1,455.72m	37.67973N 110.88982W	Bullfrog Halls Crossing Ticaboo
Long Willow Bottom Res.	9,870'	3,008.38m	37.90813N 111.84714W	Boulder Escalante Osiris
Lost Lake	9,790'	2,983.99m	37.04999N 111.78407W	Boulder Escalante Osiris
Lower Barker Reservoir	9,473'	2,887.37m	37.92479N 111.82335W	Boulder Escalante Osiris
Mud Lake	10,433'	3,179.98m	37.88178N 111.86501W	Boulder Escalante Osiris
North Creek Reservoir	6,949'	2,118.06m	37.84486N 111.75920W	Boulder Escalante Osiris
Oak Creek Reservoir	10,091'	3,075.74m	38.07068N 111.37466W	Antimony Boulder Grover
Pacer Lake	9,297'	2,833.73m	37.99318N 111.89120W	Boulder Escalante Osiris
Panguitch Lake	8,215'	2,503.93m	37.71802N 112.64268W	Brian Head Panguitch Parowan
Pine Lake	8,196'	2,498.14m	37.73982N 111.95795W	Escalante Henrieville Widtsoe
Pollywog Lake	9,173'	2,795.93m	38.10267N 111.82045W	Boulder Escalante Osiris
Posy Lake	8,687'	2,647.80m	37.93652N 111.69523W	Boulder Escalante Loa
Purple Lake	10,564'	3,219.91m	38.07323N 111.57183W	Boulder Escalante Osiris
Ridge Lake	11,083'	3,378.10m	38.13330N 111.45221W	Bicknell Grover Teasdale
Rim Lake	10,858'	3,309.52m	38.07323N 111.50832W	Antimony Boulder Grover
Roundy Reservoir	9,964'	3,037.03m	38.04522N 111.67755W	Antimony Boulder Escalante
Round Willow Bottom Res.	9,832'	2,996.79m	37.90597N 111.84311W	Boulder Escalante Osiris
Row Lakes	10,266'	3,129.08m	38.07959N 111.58429W	Boulder Escalante Osiris
Spectacle Lake	10,863'	3,311.04m	38.08135N 111.50852W	Antimony Teasdale Torrey
Tall Four Reservoir	9,673'	2,948.33m	37.92005N 111.83407W	Boulder Escalante Osiris
Thompson Reservoir	4,977'	1,516.99m	37.76585N 110.90806W	Bullfrog Halls Crossing Ticaboo
Tropic Reservoir	7,841'	2,389.94m	37.60566N 112.25349W	Cannonville Hatch Tropic
Velvet Lake	10,397'	3,169.01m	37.96736N 111.78907W	Boulder Escalante Osiris
Wide Hollow Reservoir	5,912'	1,801.98m	37.78709N 111.63732W	Escalante
Yellow Lake	9,620'	2,932.18m	37.93408N 111.82365W	Boulder Escalante Osiris

Boulder Loop

The Fremont River flows from the west to the east within the Boulder Loop district and is joined by Muddy Creek in about the center of the district and their confluence creates the Dirty Devil River which flows south into the Headwaters district. The Colorado River forms the eastern boundary of the Boulder Loop district. All of the Boulder Loop district is contained within the West Colorado River watershed and is experiencing a Phase II drought.

The Boulder Loop district has few lakes, ponds, and reservoirs than the preceding heritage districts, but they are still important water and habitat resources. The following water bodies, (the table below provided by Onlineutah.com) are found in the Boulder Loop district:

Lake or Reservoir	Elevation	Location	Nearby Towns	
Beaver Dam Reservoir	9,953'	3,033.67m	38.16560N 111.43360W	Bicknell Grover Teasdale
Blind Lake	10,040'	3,060.19m	38.42812N 111.51208W	Bicknell Grover Teasdale
Blind Lake	10,239'	3,120.85m	38.17821N 111.44321W	Bicknell Grover Teasdale
Blue Lake	10,319'	3,145.23m	38.46047N 111.47898W	Bicknell Grover Teasdale
Bobs Hole	8,990'	2,740.15m	38.23085N 111.46974W	Bicknell Grover Teasdale
Bullberry Lakes	9,025'	2,750.82m	38.24473N 111.50309W	Bicknell Grover Teasdale
Clark Lake	10,118'	3,083.97m	38.15866N 111.43968W	Bicknell Grover Teasdale
Coleman Reservoir	8,356'	2,546.91m	38.25348N 111.49162W	Bicknell Grover Teasdale
Cooke Lake	?	?	?	Bicknell Fremont Loa
Cub Lake	11,158'	3,400.96m	38.16233N 111.45778W	Bicknell Grover Teasdale
Cutler Lake	11,086'	3,379.01m	38.16981N 111.45964W	Bicknell Grover Teasdale
Dead Horse Lake	11,042'	3,365.60m	38.17186N 111.49212W	Bicknell Grover Teasdale
Evans Reservoir	8,271'	2,521.00m	38.46326N 111.78864W	Burrville Koosharem Marvsvale
Deadman Hollow Reservoir	8,215'	2,503.93m	38.45612N 111.76767W	Burrville Koosharem Marvsvale
Donkey Reservoir	10,167'	3,098.90m	38.20417N 111.49032W	Grover Teasdale Torrey
Fish Creek Reservoir	?	?	?	Grover Teasdale Torrey

Flatiron Lakes	8,323'	2,536.85m	38.25475N 111.49001W	Bicknell Grover Teasdale
Government Lake	9,232'	2,813.91m	38.24640N 111.52497W	Bicknell Grover Teasdale
Grass Lake	9,406'	2,866.95m	38.21873N 111.46422W	Bicknell Grover Teasdale
Honeymoon Lake	10,079'	3,072.08m	38.16282N 111.44395W	Bicknell Grover Teasdale
Jim Larsen Reservoir	9,060'	2,761.49m	38.21683N 111.44185W	Bicknell Grover Teasdale
Left Hand Reservoir	9,905'	3,019.04m	38.19874N 111.47470W	Bicknell Grover Teasdale
Lost Lake	9,629'	2,934.92m	38.22777N 111.51282W	Bicknell Grover Teasdale
Lower Reservoir	9,955'	3,034.28m	38.20182N 111.47712W	Bicknell Grover Teasdale
Middle Reservoir	10,030'	3,057.14m	38.20045N 111.48418W	Bicknell Grover Teasdale
Mill Meadow Reservoir	?	?	?	Koosharem Loa Fremont
Ned Reservoir	9,146'	2,787.70m	38.22934N 111.48133W	Bicknell Grover Teasdale
Neff Reservoir	10,275'	3,131.82m	38.44693N 111.49423W	Bicknell Grover Teasdale
Parker Hollow Reservoir	8,414'	2,564.59m	38.34884N 111.81900W	Bicknell Greenwich Loa
Pear Lake	10,233'	3,119.02m	38.17069N 111.44166W	Bicknell Grover Teasdale
Raft Lake	11,066'	3,372.92m	38.16560N 111.49398W	Bicknell Grover Teasdale
Round Lake	9,797'	2,986.13m	38.20593N 111.47396W	Bicknell Grover Teasdale
Solitaire Lake	10,195'	3,107.44m	38.19297N 111.48387W	Bicknell Grover Teasdale
Spray Reservoir	8,473'	2,582.57m	38.46683N 111.76188W	Burrville Koosharem Marysville
Twin Lakes	11,151'	3,398.82m	38.16731N 111.47898W	Bicknell Grover Teasdale

Under the Rim

The Sevier River and the East Fork of the Sevier terminate in the north west section of the Under the Rim heritage district and the headwaters of the Virgin River, continuation of the Paria River as it flows south in the central section while the Escalante River flows into the Colorado River on the eastern boundary of the heritage district, just north of Lake Powell. All of these waterways flow within the boundaries of the State and Federal land and contain important riparian and fish habitat. The western 1/3 of the Under the Rim district is within the Virgin River – Kanab Creek Basin watershed and is under a Phase I drought while the eastern 2/3 is within the West Colorado River Basin and experiencing a Phase II drought.

Lakes are not as plentiful within Under the Rim, but they do contain valuable fisheries and recreational assets. The largest lake in the MPNHA is Lake Powell has its western shores located in the southeastern section of Under the Rim district. The following lakes, ponds, and reservoirs are found in the Under the Rim district (table provided by [Onlineutah.com](#)):

Aspen Mirror Lake	8,415'	2,564.89m	37.52372N 112.67436W	Alton Cedar City Long Valley Jct.
Big Lake	5,368'	1,636.17m	37.15767N 112.54449W	Kanab Mt. Carmel Orderville
Cow Lake	8,812'	2,685.90m	37.50744N 112.73139W	Alton Cedar City Long Valley Jct.
Duck Lake	8,543'	2,603.91m	37.51600N 112.69554W	Alton Cedar City Long Valley Jct.
Flax Lakes	7,425'	2,263.14m	37.38232N 112.52783W	Alton Glendale Orderville
Hidden Lake	6,023'	1,835.81m	37.34718N 112.60198W	Glendale Mt. Carmel Orderville
Johnson Lakes	5,425'	1,653.54m	37.10598N 112.33431W	Kanab Mt. Carmel Orderville
Lake Powell Bullfrog	3,701'	1,128.06m	37.51081N 110.73645W	Bullfrog Ticaboo
Lake Powell Wahweap	3,701'	1,128.06m	37.00992N 111.47863W	Big Water Bullfrog Ticaboo
Le Vanger Lakes	7,031'	2,143.05m	37.43393N 112.51584W	Kanab Mt. Carmel Orderville
Mc Donald Lake	6,946'	2,117.14m	37.42597N 112.53168W	Kanab Mt. Carmel Orderville
Navajo Lake	9,039'	2,755.09m	37.52426N 112.78333W	Alton Cedar City Long Valley Jct.
Three Lakes	5,475'	1,668.78m	37.13516N 112.56702W	Kanab Mt. Carmel Orderville

Biotic Communities

Vegetation

The MPNHA is an arid district and its climate varies by elevation. Little Denmark Sevier Valley and the northern and western section of the Headwaters are characterized by the mountains on the west and east with the valley grass lands being the principle location of urbanized development. Boulder Loop, by contrast is mountainous and rocky while the eastern section of the Headwaters is mountainous and gives way to grasslands and desert plains and the Colorado River canyons. Under the Rim consists of high desert plains with rock formations and higher temperatures. Altitude also is a determining factor for precipitation with the mountains receiving average precipitation of 40 to 50 inches a year and the low lying desert areas receiving 5 to 10 inches of precipitation per year.

Given the widely varying conditions within the MPNHA one may see a variety of both native and naturalized non-native plants throughout the MPNHA. The following are plants native to Utah:

Common name	Species name
Grasses:	
Blue Grama	Bouteloua gracilis
Alkali Sacaton Grass	Sporobolus airoides
Basin Wildrye	Leymus cinereus
Indian Ricegrass	Stipa Hymenoides
Little Bluestem	Schizachyrium scoparium
Perennials:	
Showy Sandwort	Arenaria macradenia
Sulfurflower Buckwheat	Eriogonum umbellatum
Sundancer Daisy	Hymenoxys acaulis
Maple Mallow	Liamna rivularis
Desert Four O'clock	Mirabilis multiflora
Little Beebalm	Mondardella odoratissima
Fragrant Evening Primrose	Oenothera caespitosa
Wasatch Penstemon	Penstemon cyananthus
Firecracker Penstemon	Penstemon eatonii
Palmer Penstemon	Penstemon Palmeri
Utah Penstemon	Penstemon utahensis
Whipple Penstemon	Penstemon whippleanus
Gooseberryleaf Globemallow	Sphaeralcea grossulariifolia
Firechalice	Zauschneria latifolia
Shrubs:	
Utah Serviceberry	Amelanchier utahensis
Mountain Big Sagebrush	Artemisia tridentata vaseyana
Shadscale	Atriplex confertifolia
Fernbush	Chamaebatiaria millefolium
Green Mormon Tea	Ephedra viridis
Apache Plume	Fallugia paradoxa
Creeping Oregon Grape	Mahonia Repens
Littleleaf Mockorange	Philadelphus Micorophyllus
Cliffrose	Purshia Mexicana
Golden Currant	Ribes aureum

Desert Sage
Oakleaf Sumac

Salvia dorrii
Rhus trilobata

Succulents:
Dwarf Yucca

Yucca Harrimaniae

Trees:
White Fir
Bigtooth Maple
Curl-leaf Mountain Mahogany
Single-leaf Ash
Pinyon Pine
Gambel Oak

Abies concolor
Acer grandidentatum
Cecocarpus Ledifolius
Fraxinus anomala
Pinus edulis
Quercus gambelii

Native plants are of particular interest and are located throughout the MPNHA.

The following plants are of special interest and are listed as they may occur within the heritage districts. Most of these plants are considered sensitive and many are Federally protected species. Each of the tables below contains a link to the Utah Department of Natural Resource website and contains more detailed information on each species. To access the website simply press the "ctrl" key and click the name in the table.

Little Denmark

Common name

[HELIOTROPE MILKVETCH](#)

Scientific name

[ASTRAGALUS MONTII](#)

Sevier Valley

Common name

[HELIOTROPE MILKVETCH](#)

[LAST CHANCE TOWNSENDIA](#)

[UTAH ANGELICA](#)

[WRIGHT FISHHOOK CACTUS](#)

Scientific name

[ASTRAGALUS MONTII](#)

[TOWNSENDIA APRICA](#)

[ANGELICA WHEELERI](#)

[SCLEROCACTUS WRIGHTIAE](#)

Headwaters

Common name

[AQUARIUS INDIAN PAINTBRUSH](#)

[AUTUMN BUTTERCUP](#)

[JONES CYCLADENIA](#)

[MAGUIRE DAISY](#)

[UTAH ANGELICA](#)

[UTE LADIES'-TRESSES](#)

Scientific name

[CASTILLEJA AQUARIENSIS](#)

[RANUNCULUS AESTIVALIS](#)

[CYCLADENIA HUMILIS VAR JONESII](#)

[ERIGERON MAGUIREI](#)

[ANGELICA WHEELERI](#)

[SPIRANTHES DILUVIALIS](#)

Boulder Loop

Common name

[AQUARIUS INDIAN PAINTBRUSH](#)

[BARNEY REED-MUSTARD](#)

Scientific name

[CASTILLEJA AQUARIENSIS](#)

[SCHOENOCRAMBE BARNEYI](#)

[FLAT TOPS WILD BUCKWHEAT](#)

[LAST CHANCE TOWNSENDIA](#)

[MAGUIRE DAISY](#)

[RABBIT VALLEY GILIA or WONDERLAND ALICE-
FLOWER](#)

[UTE LADIES'-TRESSES](#)

[WINKLER PINCUSHION CACTUS](#)

[WRIGHT FISHHOOK CACTUS](#)

[ERIOGONUM CORYMBOSUM VAR.
SMITHII](#)

[TOWNSENDIA APRICA](#)

[ERIGERON MAGUIREI](#)

[GILIA CAESPITOSA](#)

[SPIRANTHES DILUVIALIS](#)

[PEDIOCACTUS WINKLERI](#)

[SCLEROCACTUS WRIGHTIAE](#)

Under the Rim

Common name

[JONES CYCLADENIA](#)

[KODACHROME BLADDERPOD](#)

[SILER PINCUSHION CACTUS](#)

[WELSH'S MILKWEED](#)

Scientific name

[CYCLADENIA HUMILIS VAR JONESII](#)

[LESQUERELLA TUMULOSA](#)

[PEDIOCACTUS SILERI](#)

[ASCLEPIAS WELSHII](#)

Fish and Wildlife

There is abundant wildlife throughout the MPNHA, with the greatest concentration of the wildlife being located within State Parks or National Parks, Forests, and Monuments. It should be noted that each species listed below contain a hyperlink to the Utah Department of Natural Resources, Division of Wildlife Resources website. By using the control key and clicking on the species name it will take the user to the webpage specific to that species. A photo and description of the species and its habitat is listed on the webpage with a link to a map showing the species distribution in the state. Some of the species listed below may have only a very small habitat area in any one heritage district but are included regardless. It is suggested that if one is undertaking a future project in a particular heritage district that will require further NEPA compliance work that the analysis consult these listing to determine if the species is likely to be present. This is particularly true in the following section regarding threatened and endangered species, candidate species, and species of special concern.

Fish

It should be noted that many fish listed in the Boulder Loop, Headwaters, and Under the Rim districts occur only in the Colorado River and its tributaries and are under federal stewardship.

Little Denmark

Common Name	Scientific Name
BLACK BULLHEAD	AMEIURUS MELAS
BLACK CRAPPIE	POMOXIS NIGROMACULATUS
BLUEGILL	LEPOMIS MACROCHIRUS
BROOK TROUT	SALVELINUS FONTINALIS
BROWN TROUT	SALMO TRUTTA
CHANNEL CATFISH	ICTALURUS PUNCTATUS
COMMON CARP	CYPRINUS CARPIO
CUTTHROAT TROUT	ONCORHYNCHUS CLARKII
FATHEAD MINNOW	PIMEPHALES PROMELAS
GREEN SUNFISH	LEPOMIS CYANELLUS
LARGEMOUTH BASS	MICROPTERUS SALMOIDES
LEATHERSIDE CHUB	GILA COPEI
LONGNOSE DACE	RHINICHTHYS CATARACTAE
MOTTLED SCULPIN	COTTUS BAIRDII
MOUNTAIN SUCKER	CATOSTOMUS PLATYRHYNCHUS
MOUNTAIN WHITEFISH	PROSOPIUM WILLIAMSONI
NORTHERN PIKE	ESOX LUCIUS
RAINBOW TROUT	ONCORHYNCHUS MYKISS
RED SHINER	CYPRINELLA LUTRENSIS
REDSIDE SHINER	RICHARDSONIUS BALTEATUS
SMALLMOUTH BASS	MICROPTERUS DOLOMIEU
SPLAKE	SALVELINUS NAMAYCUSH X S. FONTINALIS
UTAH CHUB	GILA ATRARIA
UTAH SUCKER	CATOSTOMUS ARDENS
WESTERN MOSQUITOFISH	GAMBUSIA AFFINIS

WHITE BASS

MORONE CHRYSOPS

Sevier Valley

Common Name

BLACK BULLHEAD
BLACK CRAPPIE
BLUEGILL
BONNEVILLE CUTTHROAT TROUT
BROOK TROUT
BROWN TROUT
CHANNEL CATFISH
COLORADO RIVER CUTTHROAT TROUT
COMMON CARP
CUTTHROAT TROUT
FATHEAD MINNOW
GREEN SUNFISH
LAKE TROUT
LARGEMOUTH BASS
LEATHERSIDE CHUB
MOTTLED SCULPIN
MOUNTAIN SUCKER
MOUNTAIN WHITEFISH
NORTHERN PIKE
RAINBOW TROUT
RED SHINER
REDSIDE SHINER
SMALLMOUTH BASS
SPLAKE
TIGER MUSKIE
TIGER TROUT
UTAH CHUB
UTAH SUCKER
WESTERN MOSQUITOFISH
WHITE BASS

Scientific Name

AMEIURUS MELAS
POMOXIS NIGROMACULATUS
LEPOMIS MACROCHIRUS
ONCORHYNCHUS CLARKII UTAH
SALVELINUS FONTINALIS
SALMO TRUTTA
ICTALURUS PUNCTATUS
ONCORHYNCHUS CLARKII PLEURITICUS
CYPRINUS CARPIO
ONCORHYNCHUS CLARKII
PIMEPHALES PROMELAS
LEPOMIS CYANELLUS
SALVELINUS NAMAYCUSH
MICROPTERUS SALMOIDES
GILA COPEI
COTTUS BAIRDII
CATOSTOMUS PLATYRHYNCHUS
PROSOPIUM WILLIAMSONI
ESOX LUCIUS
ONCORHYNCHUS MYKISS
CYPRINELLA LUTRENSIS
RICHARDSONIUS BALTEATUS
MICROPTERUS DOLOMIEU
SALVELINUS NAMAYCUSH X S. FONTINALIS
ESOX LUCIUS X E. MASQUINONGY
SALMO TRUTTA X SALVELINUS FONTINALIS
GILA ATRARIA
CATOSTOMUS ARDENS
GAMBUSIA AFFINIS
MORONE CHRYSOPS

Headwaters

Common Name

BLACK BULLHEAD
BLACK CRAPPIE
BLUEHEAD SUCKER
BLUEGILL
BONNEVILLE CUTTHROAT TROUT
BONYTAIL

Scientific Name

AMEIURUS MELAS
POMOXIS NIGROMACULATUS
CATOSTOMUS DISCOBOLUS
LEPOMIS MACROCHIRUS
ONCORHYNCHUS CLARKII UTAH
GILA ELEGANS

[BROOK TROUT](#)
[BROWN TROUT](#)
[CHANNEL CATFISH](#)
[COLORADO PIKEMINNOW](#)
[COLORADO RIVER CUTTHROAT TROUT](#)
[COMMON CARP](#)
[CUTTHROAT TROUT](#)
[FATHEAD MINNOW](#)
[FLANNELMOUTH SUCKER](#)
[GREEN SUNFISH](#)
[HUMPBACK CHUB](#)
[LARGEMOUTH BASS](#)
[LEATHERSIDE CHUB](#)
[LONGNOSE DACE](#)
[MOTTLED SCULPIN](#)
[MOUNTAIN SUCKER](#)
[MOUNTAIN WHITEFISH](#)
[NORTHERN PIKE](#)
[RAINBOW TROUT](#)
[RED SHINER](#)
[REDSIDE SHINER](#)
[ROUNDTAIL CHUB](#)
[SMALLMOUTH BASS](#)
[STRIPED BASS](#)
[THREADFIN SHAD](#)
[TIGER TROUT](#)
[UTAH CHUB](#)
[UTAH SUCKER](#)
[WALLEYE](#)
[WESTERN MOSQUITOFISH](#)
[WHITE BASS](#)
[YELLOW BULLHEAD](#)

[SALVELINUS FONTINALIS](#)
[SALMO TRUTTA](#)
[ICTALURUS PUNCTATUS](#)
[PTYCHOCEILUS LUCIUS](#)
[ONCORHYNCHUS CLARKII PLEURITICUS](#)
[CYPRINUS CARPIO](#)
[ONCORHYNCHUS CLARKII](#)
[PIMEPHALES PROMELAS](#)
[CATOSTOMUS LATIPINNIS](#)
[LEPOMIS CYANELLUS](#)
[GILA CYPHA](#)
[MICROPTERUS SALMOIDES](#)
[GILA COPEI](#)
[RHINICHTHYS CATARACTAE](#)
[COTTUS BAIRDII](#)
[CATOSTOMUS PLATYRHYNCHUS](#)
[PROSOPIUM WILLIAMSONI](#)
[ESOX LUCIUS](#)
[ONCORHYNCHUS MYKISS](#)
[CYPRINELLA LUTRENSIS](#)
[RICHARDSONIUS BALTEATUS](#)
[GILA ROBUSTA](#)
[MICROPTERUS DOLOMIEU](#)
[MORONE SAXATILIS](#)
[DOROSOMA PETENENSE](#)
[SALMO TRUTTA X SALVELINUS FONTINALIS](#)
[GILA ATRARIA](#)
[CATOSTOMUS ARDENS](#)
[SANDER VITREUS](#)
[GAMBUSIA AFFINIS](#)
[MORONE CHRYSOPS](#)
[AMEIURUS NATALIS](#)

Boulder Loop

Common Name

[BLACK BULLHEAD](#)
[BLACK CRAPPIE](#)
[BLUEHEAD SUCKER](#)
[BLUEGILL](#)
[BONYTAIL](#)
[BROOK TROUT](#)
[BROWN TROUT](#)
[CHANNEL CATFISH](#)
[COLORADO PIKEMINNOW](#)

Scientific Name

[AMEIURUS MELAS](#)
[POMOXIS NIGROMACULATUS](#)
[CATOSTOMUS DISCOBOLUS](#)
[LEPOMIS MACROCHIRUS](#)
[GILA ELEGANS](#)
[SALVELINUS FONTINALIS](#)
[SALMO TRUTTA](#)
[ICTALURUS PUNCTATUS](#)
[PTYCHOCEILUS LUCIUS](#)

[COLORADO RIVER CUTTHROAT TROUT](#)
[COMMON CARP](#)
[CREEK CHUB](#)
[CUTTHROAT TROUT](#)
[FATHEAD MINNOW](#)
[FLANNELMOUTH SUCKER](#)
[GREEN SUNFISH](#)
[LARGEMOUTH BASS](#)
[LEATHERSIDE CHUB](#)
[MOTTLED SCULPIN](#)
[MOUNTAIN SUCKER](#)
[MOUNTAIN WHITEFISH](#)
[NORTHERN PIKE](#)
[RAINBOW TROUT](#)
[RAZORBACK SUCKER](#)
[RED SHINER](#)
[REDSIDE SHINER](#)
[ROUNDTAIL CHUB](#)
[SAND SHINER](#)
[SMALLMOUTH BASS](#)
[TIGER TROUT](#)
[UTAH CHUB](#)
[UTAH SUCKER](#)
[WESTERN MOSQUITOFISH](#)
[WHITE BASS](#)

[ONCORHYNCHUS CLARKII PLEURITICUS](#)
[CYPRINUS CARPIO](#)
[SEMOTILUS ATROMACULATUS](#)
[ONCORHYNCHUS CLARKII](#)
[PIMEPHALES PROMELAS](#)
[CATOSTOMUS LATIPINNIS](#)
[LEPOMIS CYANELLUS](#)
[MICROPTERUS SALMOIDES](#)
[GILA COPEI](#)
[COTTUS BAIRDII](#)
[CATOSTOMUS PLATYRHYNCUS](#)
[PROSOPIUM WILLIAMSONI](#)
[ESOX LUCIUS](#)
[ONCORHYNCHUS MYKISS](#)
[XYRAUCHEN TEXANUS](#)
[CYPRINELLA LUTRENSIS](#)
[RICHARDSONIUS BALTEATUS](#)
[GILA ROBUSTA](#)
[NOTROPIS STRAMINEUS](#)
[MICROPTERUS DOLOMIEU](#)
[SALMO TRUTTA X SALVELINUS FONTINALIS](#)
[GILA ATRARIA](#)
[CATOSTOMUS ARDENS](#)
[GAMBUSIA AFFINIS](#)
[MORONE CHRYSOPS](#)

Under the Rim

Common Name

[BLACK BULLHEAD](#)
[BLACK CRAPPIE](#)
[BLUEHEAD SUCKER](#)
[BLUEGILL](#)
[BROOK TROUT](#)
[BROWN TROUT](#)
[CHANNEL CATFISH](#)
[COMMON CARP](#)
[CUTTHROAT TROUT](#)
[FATHEAD MINNOW](#)
[FLANNELMOUTH SUCKER](#)
[GIZZARD SHAD](#)
[GREEN SUNFISH](#)
[LARGEMOUTH BASS](#)
[LEATHERSIDE CHUB](#)
[MOTTLED SCULPIN](#)

Scientific Name

[AMEIURUS MELAS](#)
[POMOXIS NIGROMACULATUS](#)
[CATOSTOMUS DISCOBOLUS](#)
[LEPOMIS MACROCHIRUS](#)
[SALVELINUS FONTINALIS](#)
[SALMO TRUTTA](#)
[ICTALURUS PUNCTATUS](#)
[CYPRINUS CARPIO](#)
[ONCORHYNCHUS CLARKII](#)
[PIMEPHALES PROMELAS](#)
[CATOSTOMUS LATIPINNIS](#)
[DOROSOMA CEPEDIANUM](#)
[LEPOMIS CYANELLUS](#)
[MICROPTERUS SALMOIDES](#)
[GILA COPEI](#)
[COTTUS BAIRDII](#)

MOUNTAIN SUCKER
MOUNTAIN WHITEFISH
NORTHERN PIKE
RAINBOW TROUT
RED SHINER
REDSIDE SHINER
SMALLMOUTH BASS
STRIPED BASS
THREADFIN SHAD
UTAH CHUB
WALLEYE
WESTERN MOSQUITOFISH
WHITE BASS

CATOSTOMUS PLATYRHYNCHUS
PROSOPIUM WILLIAMSONI
ESOX LUCIUS
ONCORHYNCHUS MYKISS
CYPRINELLA LUTRENSIS
RICHARDSONIUS BALTEATUS
MICROPTERUS DOLOMIEU
MORONE SAXATILIS
DOROSOMA PETENENSE
GILA ATRARIA
SANDER VITREUS
GAMBUSIA AFFINIS
MORONE CHRYSOPS

Birds

Birds use the Colorado River extensively as a flyway, providing a wide variety of transient and resident species within the MPNHA and affording many opportunities for passive observation.

Little Denmark

[AMERICAN AVOCET](#)
[AMERICAN COOT](#)
[AMERICAN CROW](#)
[AMERICAN GOLDFINCH](#)
[AMERICAN KESTREL](#)
[AMERICAN PIPIT](#)
[AMERICAN ROBIN](#)
[AMERICAN THREE-TOED WOODPECKER](#)
[AMERICAN TREE SPARROW](#)
[AMERICAN WHITE PELICAN](#)
[AMERICAN WIGEON](#)
[ASH-THROATED FLYCATCHER](#)
[BALD EAGLE](#)
[BAND-TAILED PIGEON](#)
[BARN OWL](#)
[BARN SWALLOW](#)
[BELTED KINGFISHER](#)
[BLACK ROSY-FINCH](#)
[BLACK SWIFT](#)
[BLACK-BILLED MAGPIE](#)
[BLACK-CAPPED CHICKADEE](#)
[BLACK-CHINNED HUMMINGBIRD](#)
[BLACK-HEADED GROSBEAK](#)
[BLACK-NECKED STILT](#)
[BLACK-THROATED GRAY WARBLER](#)
[BLACK-THROATED SPARROW](#)
[BLUE GROSBEAK](#)
[BLUE GROUSE](#)
[BLUE-GRAY GNATCATCHER](#)
[BOBOLINK](#)
[BREWER'S BLACKBIRD](#)
[BREWER'S SPARROW](#)
[BROAD-TAILED HUMMINGBIRD](#)
[BROWN CREEPER](#)
[BROWN-HEADED COWBIRD](#)
[BUFFLEHEAD](#)
[BULLOCK'S ORIOLE](#)
[BURROWING OWL](#)

[RECURVIROSTRA AMERICANA](#)
[FULICA AMERICANA](#)
[CORVUS BRACHYRHYNCHOS](#)
[CARDUELIS TRISTIS](#)
[FALCO SPARVERIUS](#)
[ANTHUS RUBESCENS](#)
[TURDUS MIGRATORIUS](#)
[PICOIDES DORSALIS](#)
[SPIZELLA ARBOREA](#)
[PELECANUS ERYTHORHYNCHOS](#)
[ANAS AMERICANA](#)
[MYIARCHUS CINERASCENS](#)
[HALIAEETUS LEUCOCEPHALUS](#)
[PATAGIOENAS FASCIATA](#)
[TYTO ALBA](#)
[HIRUNDO RUSTICA](#)
[CERYLE ALCYON](#)
[LEUCOSTICTE ATRATA](#)
[CYPSELOIDES NIGER](#)
[PICA HUDSONIA](#)
[POECILE ATRICAPILLUS](#)
[ARCHILOCHUS ALEXANDRI](#)
[PHEUCTICUS MELANOCEPHALUS](#)
[HIMANTOPUS MEXICANUS](#)
[DENDROICA NIGRESCENS](#)
[AMPHISPIZA BILINEATA](#)
[PASSERINA CAERULEA](#)
[DENDRAGAPUS OBSCURUS](#)
[POLIOPTILA CAERULEA](#)
[DOLICHONYX ORYZIVORUS](#)
[EUPHAGUS CYANOCEPHALUS](#)
[SPIZELLA BREWERI](#)
[SELASPHORUS PLATYCERCUS](#)
[CERTHIA AMERICANA](#)
[MOLOTHRUS ATER](#)
[BUCEPHALA ALBEOLA](#)
[ICTERUS BULLOCKII](#)
[ATHENE CUNICULARIA](#)

[BUSHTIT](#)
[CALIFORNIA GULL](#)
[CALIFORNIA QUAIL](#)
[CANADA GOOSE](#)
[CANVASBACK](#)
[CANYON WREN](#)
[CASPIAN TERN](#)
[CATTLE EGRET](#)
[CHIPPING SPARROW](#)
[CHUKAR](#)
[CINNAMON TEAL](#)
[CLARK'S GREBE](#)
[CLARK'S NUTCRACKER](#)
[CLIFF SWALLOW](#)
[COMMON GOLDENEYE](#)
[COMMON MERGANSER](#)
[COMMON NIGHTHAWK](#)
[COMMON RAVEN](#)
[COMMON TERN](#)
[COMMON YELLOWTHROAT](#)
[COOPER'S HAWK](#)
[CORDILLERAN FLYCATCHER](#)
[DARK-EYED JUNCO](#)
[DOUBLE-CRESTED CORMORANT](#)
[DOWNY WOODPECKER](#)
[EUROPEAN STARLING](#)
[EVENING GROSBEAK](#)
[FERRUGINOUS HAWK](#)
[GADWALL](#)
[GAMBEL'S QUAIL](#)
[GOLDEN EAGLE](#)
[GRASSHOPPER SPARROW](#)
[GRAY CATBIRD](#)
[GRAY FLYCATCHER](#)
[GRAY VIREO](#)
[GRAY-CROWNED ROSY-FINCH](#)
[GREAT BLUE HERON](#)
[GREAT HORNED OWL](#)
[GREATER SAGE-GROUSE](#)
[GREATER WHITE-FRONTED GOOSE](#)
[GREATER YELLOWLEGS](#)
[GREEN-TAILED TOWHEE](#)
[GREEN-WINGED TEAL](#)
[HAIRY WOODPECKER](#)

[PSALTRIPARUS MINIMUS](#)
[LARUS CALIFORNICUS](#)
[CALLIPEPLA CALIFORNICA](#)
[BRANTA CANADENSIS](#)
[AYTHYA VALISINERIA](#)
[CATHERPES MEXICANUS](#)
[STERNA CASPIA](#)
[BUBULCUS IBIS](#)
[SPIZELLA PASSERINA](#)
[ALECTORIS CHUKAR](#)
[ANAS CYANOPTERA](#)
[AECHMOPHORUS CLARKII](#)
[NUCIFRAGA COLUMBIANA](#)
[PETROCHELIDON PYRRHONOTA](#)
[BUCEPHALA CLANGULA](#)
[MERGUS MERGANSER](#)
[CHORDEILES MINOR](#)
[CORVUS CORAX](#)
[STERNA HIRUNDO](#)
[GEOTHYLPIS TRICHAS](#)
[ACCIPITER COOPERII](#)
[EMPIDONAX OCCIDENTALIS](#)
[JUNCO HYEMALIS](#)
[PHALACROCORAX AURITUS](#)
[PICOIDES PUBESCENS](#)
[STURNUS VULGARIS](#)
[COCCOTHAUSTES VESPERTINUS](#)
[BUTEO REGALIS](#)
[ANAS STREPERA](#)
[CALLIPEPLA GAMBELII](#)
[AQUILA CHRYSAETOS](#)
[AMMODRAMUS SAVANNARUM](#)
[DUMETELLA CAROLINENSIS](#)
[EMPIDONAX WRIGHTII](#)
[VIREO VICINIOR](#)
[LEUCOSTICTE TEPHROCOTIS](#)
[ARDEA HERODIAS](#)
[BUBO VIRGINIANUS](#)
[CENTROCERCUS UROPHASIANUS](#)
[ANSER ALBIFRONS](#)
[TRINGA MELANOLEUCA](#)
[PIPILO CHLORURUS](#)
[ANAS CRECCA](#)
[PICOIDES VILLOSUS](#)

[HERMIT THRUSH](#)
[HORNED LARK](#)
[HOUSE FINCH](#)
[HOUSE SPARROW](#)
[HOUSE WREN](#)
[JUNIPER TITMOUSE](#)
[KILLDEER](#)
[LARK SPARROW](#)
[LAZULI BUNTING](#)
[LESSER GOLDFINCH](#)
[LESSER SCAUP](#)
[LESSER YELLOWLEGS](#)
[LOGGERHEAD SHRIKE](#)
[LONG-BILLED CURLEW](#)
[LONG-EARED OWL](#)
[MACGILLIVRAY'S WARBLER](#)
[MALLARD](#)
[MARbled GODWIT](#)
[MARSH WREN](#)
[MERLIN](#)
[MOUNTAIN BLUEBIRD](#)
[MOUNTAIN CHICKADEE](#)
[MOURNING DOVE](#)
[NORTHERN FLICKER](#)
[NORTHERN GOSHAWK](#)
[NORTHERN HARRIER](#)
[NORTHERN MOCKINGBIRD](#)
[NORTHERN PINTAIL](#)
[NORTHERN PYGMY-OWL](#)
[NORTHERN ROUGH-WINGED SWALLOW](#)
[NORTHERN SHOVELER](#)
[NORTHERN SHRIKE](#)
[OLIVE-SIDED FLYCATCHER](#)
[ORANGE-CROWNED WARBLER](#)
[OSPREY](#)
[PEREGRINE FALCON](#)
[PIED-BILLED GREBE](#)
[PINE SISKIN](#)
[PINYON JAY](#)
[PRAIRIE FALCON](#)
[PURPLE MARTIN](#)
[RED CROSSBILL](#)
[RED-BREASTED MERGANSER](#)
[RED-BREASTED NUTHATCH](#)

[CATHARUS GUTTATUS](#)
[EREMOPHILA ALPESTRIS](#)
[CARPODACUS MEXICANUS](#)
[PASSER DOMESTICUS](#)
[TROGLODYTES AEDON](#)
[BAEOLOPHUS RIDGWAYI](#)
[CHARADRIUS VOCIFERUS](#)
[CHONDESTES GRAMMACUS](#)
[PASSERINA AMOENA](#)
[CARDUELIS PSALTRIA](#)
[AYTHYA AFFINIS](#)
[TRINGA FLAVIPES](#)
[LANIUS LUDOVICIANUS](#)
[NUMENIUS AMERICANUS](#)
[ASIO OTUS](#)
[OPORORNIS TOLMIEI](#)
[ANAS PLATYRHYNCHOS](#)
[LIMOSA FEDOA](#)
[CISTOTHORUS PALUSTRIS](#)
[FALCO COLUMBARIUS](#)
[SIALIA CURRUCOIDES](#)
[POECILE GAMBELI](#)
[ZENAIDA MACROURA](#)
[COLAPTES AURATUS](#)
[ACCIPITER GENTILIS](#)
[CIRCUS CYANEUS](#)
[MIMUS POLYGLOTTOS](#)
[ANAS ACUTA](#)
[GLAUCIDIUM GNOMA](#)
[STELGIDOPTERYX SERRIPENNIS](#)
[ANAS CLYPEATA](#)
[LANIUS EXCUBITOR](#)
[CONTOPUS COOPERI](#)
[VERMIVORA CELATA](#)
[PANDION HALIAETUS](#)
[FALCO PEREGRINUS](#)
[PODILYMBUS PODICEPS](#)
[CARDUELIS PINUS](#)
[GYMNORHINUS CYANOCEPHALUS](#)
[FALCO MEXICANUS](#)
[PROGNE SUBIS](#)
[LOXIA CURVIROSTRA](#)
[MERGUS SERRATOR](#)
[SITTA CANADENSIS](#)

[RED-NAPED SAPSUCKER](#)
[RED-TAILED HAWK](#)
[RED-WINGED BLACKBIRD](#)
[RING-BILLED GULL](#)
[RING-NECKED DUCK](#)
[RING-NECKED PHEASANT](#)
[ROCK PIGEON](#)
[ROUGH-LEGGED HAWK](#)
[RUBY-CROWNED KINGLET](#)
[RUDDY DUCK](#)
[RUFFED GROUSE](#)
[RUFIOUS HUMMINGBIRD](#)
[SAGE SPARROW](#)
[SAGE THRASHER](#)
[SANDHILL CRANE](#)
[SAVANNAH SPARROW](#)
[SAY'S PHOEBE](#)
[SCOTT'S ORIOLE](#)
[SEMIPALMATED SANDPIPER](#)
[SHARP-SHINNED HAWK](#)
[SHORT-EARED OWL](#)
[SNOWY EGRET](#)
[SONG SPARROW](#)
[SPOTTED SANDPIPER](#)
[SPOTTED TOWHEE](#)
[STELLER'S JAY](#)
[SWAINSON'S HAWK](#)
[TOWNSEND'S SOLITAIRE](#)
[TOWNSEND'S WARBLER](#)
[TREE SWALLOW](#)
[TUNDRA SWAN](#)
[TURKEY VULTURE](#)
[VESPER SPARROW](#)
[VIOLET-GREEN SWALLOW](#)
[VIRGINIA'S WARBLER](#)
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[YELLOW-BREASTED CHAT](#)
[YELLOW-HEADED BLACKBIRD](#)
[YELLOW-RUMPED WARBLER](#)

[AERONAUTES SAXATALIS](#)
[MELEAGRIS GALLOPAVO MERRIAM](#)
[SPHYRAPICUS THYROIDEUS](#)
[EMPIDONAX TRAILLII](#)
[GALLINAGO DELICATA](#)
[WILSONIA PUSILLA](#)
[TROGLODYTES TROGLODYTES](#)
[DENDROICA PETECHIA](#)
[ICTERIA VIRENS](#)
[XANTHOCEPHALUS XANTHOCEPHALUS](#)
[DENDROICA CORONATA](#)

Under the Rim

[ACORN WOODPECKER](#)
[AMERICAN AVOCET](#)
[AMERICAN BITTERN](#)
[AMERICAN COOT](#)
[AMERICAN CROW](#)
[AMERICAN GOLDFINCH](#)
[AMERICAN KESTREL](#)
[AMERICAN PIPIT](#)
[AMERICAN REDSTART](#)
[AMERICAN ROBIN](#)
[AMERICAN THREE-TOED WOODPECKER](#)
[AMERICAN TREE SPARROW](#)
[AMERICAN WIGEON](#)
[ASH-THROATED FLYCATCHER](#)
[BALD EAGLE](#)
[BAND-TAILED PIGEON](#)
[BARN OWL](#)
[BARN SWALLOW](#)
[BELTED KINGFISHER](#)
[BENDIRE'S THRASHER](#)
[BEWICK'S WREN](#)
[BLACK ROSY-FINCH](#)
[BLACK SWIFT](#)
[BLACK-BILLED MAGPIE](#)
[BLACK-CAPPED CHICKADEE](#)
[BLACK-CHINNED HUMMINGBIRD](#)
[BLACK-CHINNED SPARROW](#)
[BLACK-CROWNED NIGHT-HERON](#)
[BLACK-HEADED GROSBEAK](#)
[BLACK-NECKED STILT](#)
[BLACK-THROATED GRAY WARBLER](#)

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[RECURVIROSTRA AMERICANA](#)
[BOTAURUS LENTIGINOSUS](#)
[FULICA AMERICANA](#)
[CORVUS BRACHYRHYNCHOS](#)
[CARDUELIS TRISTIS](#)
[FALCO SPARVERIUS](#)
[ANTHUS RUBESCENS](#)
[SETOPHAGA RUTICILLA](#)
[TURDUS MIGRATORIUS](#)
[PICOIDES DORSALIS](#)
[SPIZELLA ARBOREA](#)
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[MYIARCHUS CINERASCENS](#)
[HALIAEETUS LEUCOCEPHALUS](#)
[PATAGIOENAS FASCIATA](#)
[TYTO ALBA](#)
[HIRUNDO RUSTICA](#)
[CERYLE ALCYON](#)
[TOXOSTOMA BENDIREI](#)
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[LEUCOSTICTE ATRATA](#)
[CYPSELOIDES NIGER](#)
[PICA HUDSONIA](#)
[POECILE ATRICAPILLUS](#)
[ARCHILOCHUS ALEXANDRI](#)
[SPIZELLA ATROGULARIS](#)
[NYCTICORAX NYCTICORAX](#)
[PHEUCTICUS MELANOCEPHALUS](#)
[HIMANTOPUS MEXICANUS](#)
[DENDROICA NIGRESCENS](#)

[BLACK-THROATED SPARROW](#)
[BLUE GROSBEAK](#)
[BLUE GROUSE](#)
[BLUE-GRAY GNATCATCHER](#)
[BLUE-WINGED TEAL](#)
[BOBOLINK](#)
[BOHEMIAN WAXWING](#)
[BONAPARTE'S GULL](#)
[BREWER'S BLACKBIRD](#)
[BREWER'S SPARROW](#)
[BROAD-TAILED HUMMINGBIRD](#)
[BROWN CREEPER](#)
[BROWN-HEADED COWBIRD](#)
[BUFFLEHEAD](#)
[BULLOCK'S ORIOLE](#)
[BURROWING OWL](#)
[BUSHTIT](#)
[CALIFORNIA CONDOR](#)
[CALIFORNIA GULL](#)
[CALLIOPE HUMMINGBIRD](#)
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[CANYON WREN](#)
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[CASSIN'S KINGBIRD](#)
[CATTLE EGRET](#)
[CEDAR WAXWING](#)
[CHIPPING SPARROW](#)
[CHUKAR](#)
[CINNAMON TEAL](#)
[CLARK'S GREBE](#)
[CLARK'S NUTCRACKER](#)
[CLIFF SWALLOW](#)
[COMMON BLACK-HAWK](#)
[COMMON GOLDENEYE](#)
[COMMON LOON](#)
[COMMON MERGANSER](#)
[COMMON NIGHTHAWK](#)
[COMMON POORWILL](#)
[COMMON RAVEN](#)
[COMMON REDPOLL](#)
[COMMON YELLOWTHROAT](#)
[COOPER'S HAWK](#)
[CORDILLERAN FLYCATCHER](#)

[AMPHISPIZA BILINEATA](#)
[PASSERINA CAERULEA](#)
[DENDRAGAPUS OBSCURUS](#)
[POLIOPTILA CAERULEA](#)
[ANAS DISCORS](#)
[DOLICHONYX ORYZIVORUS](#)
[BOMBYCILLA GARRULUS](#)
[LARUS PHILADELPHIA](#)
[EUPHAGUS CYANOCEPHALUS](#)
[SPIZELLA BREWERI](#)
[SELASPHORUS PLATYCERCUS](#)
[CERTHIA AMERICANA](#)
[MOLOTHRUS ATER](#)
[BUCEPHALA ALBEOLA](#)
[ICTERUS BULLOCKII](#)
[ATHENE CUNICULARIA](#)
[PSALTRIPARUS MINIMUS](#)
[GYMNOGYPS CALIFORNIANUS](#)
[LARUS CALIFORNICUS](#)
[STELLULA CALLIOPE](#)
[BRANTA CANADENSIS](#)
[AYTHYA VALISINERIA](#)
[CATHERPES MEXICANUS](#)
[CARPODACUS CASSINI](#)
[TYRANNUS VOCIFERANS](#)
[BUBULCUS IBIS](#)
[BOMBYCILLA CEDRORUM](#)
[SPIZELLA PASSERINA](#)
[ALECTORIS CHUKAR](#)
[ANAS CYANOPTERA](#)
[AECHMOPHORUS CLARKII](#)
[NUCIFRAGA COLUMBIANA](#)
[PETROCHELIDON PYRRHONOTA](#)
[BUTEOGALLUS ANTHRACINUS](#)
[BUCEPHALA CLANGULA](#)
[GAVIA IMMER](#)
[MERGUS MERGANSER](#)
[CHORDEILES MINOR](#)
[PHALAENOPTILUS NUTTALLII](#)
[CORVUS CORAX](#)
[CARDUELIS FLAMMEA](#)
[GEOTHLYPIS TRICHAS](#)
[ACCIPITER COOPERII](#)
[EMPIDONAX OCCIDENTALIS](#)

[DARK-EYED JUNCO](#)
[DOUBLE-CRESTED CORMORANT](#)
[DOWNY WOODPECKER](#)
[DUSKY FLYCATCHER](#)
[EARED GREBE](#)
[EUROPEAN STARLING](#)
[EVENING GROSBEAK](#)
[FERRUGINOUS HAWK](#)
[FLAMMULATED OWL](#)
[FORSTER'S TERN](#)
[FOX SPARROW](#)
[FRANKLIN'S GULL](#)
[GADWALL](#)
[GAMBEL'S QUAIL](#)
[GOLDEN EAGLE](#)
[GOLDEN-CROWNED KINGLET](#)
[GOLDEN-CROWNED SPARROW](#)
[GRACE'S WARBLER](#)
[GRAY CATBIRD](#)
[GRAY FLYCATCHER](#)
[GRAY JAY](#)
[GRAY VIREO](#)
[GREAT BLUE HERON](#)
[GREAT HORNED OWL](#)
[GREATER ROADRUNNER](#)
[GREATER SAGE-GROUSE](#)
[GREATER WHITE-FRONTED GOOSE](#)
[GREATER YELLOWLEGS](#)
[GREEN HERON](#)
[GREEN-TAILED TOWHEE](#)
[GREEN-WINGED TEAL](#)
[HAIRY WOODPECKER](#)
[HAMMOND'S FLYCATCHER](#)
[HERMIT THRUSH](#)
[HOODED MERGANSER](#)
[HOODED ORIOLE](#)
[HORNED GREBE](#)
[HORNED LARK](#)
[HOUSE FINCH](#)
[HOUSE SPARROW](#)
[HOUSE WREN](#)
[INDIGO BUNTING](#)
[JUNIPER TITMOUSE](#)
[KILLDEER](#)

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[PICOIDES PUBESCENS](#)
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[PODICEPS NIGRICOLLIS](#)
[STURNUS VULGARIS](#)
[COCCOTHAUSTES VESPERTINUS](#)
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[LARUS PIPIXCAN](#)
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[CALLIPEPLA GAMBELII](#)
[AQUILA CHRYSÆTOS](#)
[REGULUS SATRAPA](#)
[ZONOTRICHIA ATRICAPILLA](#)
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[BUBO VIRGINIANUS](#)
[GEOCOCYX CALIFORNIANUS](#)
[CENTROCERCUS UROPHASIANUS](#)
[ANSER ALBIFRONS](#)
[TRINGA MELANOLEUCA](#)
[BUTORIDES VIRESCENS](#)
[PIPILO CHLORURUS](#)
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[PICOIDES VILLOSUS](#)
[EMPIDONAX HAMMONDII](#)
[CATHARUS GUTTATUS](#)
[LOPHODYTES CUCULLATUS](#)
[ICTERUS CUCULLATUS](#)
[PODICEPS AURITUS](#)
[EREMOPHILA ALPESTRIS](#)
[CARPODACUS MEXICANUS](#)
[PASSER DOMESTICUS](#)
[TROGLODYTES AEDON](#)
[PASSERINA CYANEA](#)
[BAELOPHUS RIDGWAYI](#)
[CHARADRIUS VOCIFERUS](#)

[LARK BUNTING](#)
[LAZULI BUNTING](#)
[LEAST SANDPIPER](#)
[LESSER GOLDFINCH](#)
[LESSER SCAUP](#)
[LESSER YELLOWLEGS](#)
[LEWIS'S WOODPECKER](#)
[LINCOLN'S SPARROW](#)
[LOGGERHEAD SHRIKE](#)
[LONG-BILLED CURLEW](#)
[LONG-EARED OWL](#)
[LONG-TAILED DUCK](#)
[MACGILLIVRAY'S WARBLER](#)
[MALLARD](#)
[MARBLED GODWIT](#)
[MARSH WREN](#)
[MERLIN](#)
[MEXICAN SPOTTED OWL](#)
[MOUNTAIN BLUEBIRD](#)
[MOUNTAIN CHICKADEE](#)
[MOURNING DOVE](#)
[NASHVILLE WARBLER](#)
[NORTHERN FLICKER](#)
[NORTHERN GOSHAWK](#)
[NORTHERN HARRIER](#)
[NORTHERN MOCKINGBIRD](#)
[NORTHERN PINTAIL](#)
[NORTHERN PYGMY-OWL](#)
[NORTHERN ROUGH-WINGED SWALLOW](#)
[NORTHERN SAW-WHET OWL](#)
[NORTHERN SHOVELER](#)
[NORTHERN SHRIKE](#)
[NORTHERN WATERTHRUSH](#)
[OLIVE-SIDED FLYCATCHER](#)
[ORANGE-CROWNED WARBLER](#)
[OSPREY](#)
[PACIFIC LOON](#)
[PECTORAL SANDPIPER](#)
[PEREGRINE FALCON](#)
[PIED-BILLED GREBE](#)
[PINE GROSBEAK](#)
[PINE SISKIN](#)
[PINYON JAY](#)
[PLUMBEOUS VIREO](#)

[CALAMOSPIZA MELANOCORYS](#)
[PASSERINA AMOENA](#)
[CALIDRIS MINUTILLA](#)
[CARDUELIS PSALTRIA](#)
[AYTHYA AFFINIS](#)
[TRINGA FLAVIPES](#)
[MELANERPES LEWIS](#)
[MELOSPIZA LINCOLNII](#)
[LANIUS LUDOVICIANUS](#)
[NUMENIUS AMERICANUS](#)
[ASIO OTUS](#)
[CLANGULA HYEMALIS](#)
[OPORORNIS TOLMIEI](#)
[ANAS PLATYRHYNCHOS](#)
[LIMOSA FEDOA](#)
[CISTOTHORUS PALUSTRIS](#)
[FALCO COLUMBARIUS](#)
[STRIX OCCIDENTALIS LUCIDA](#)
[SIALIA CURRUCOIDES](#)
[POECILE GAMBELI](#)
[ZENAIDA MACROURA](#)
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[COLAPTES AURATUS](#)
[ACCIPITER GENTILIS](#)
[CIRCUS CYANEUS](#)
[MIMUS POLYGLOTTOS](#)
[ANAS ACUTA](#)
[GLAUCIDIUM GNOMA](#)
[STELGIDOPTERYX SERRIPENNIS](#)
[AEGOLIUS ACADICUS](#)
[ANAS CLYPEATA](#)
[LANIUS EXCUBITOR](#)
[SEIURUS NOVEBORACENSIS](#)
[CONTOPUS COOPERI](#)
[VERMIVORA CELATA](#)
[PANDION HALIAETUS](#)
[GAVIA PACIFICA](#)
[CALIDRIS MELANOTOS](#)
[FALCO PEREGRINUS](#)
[PODILYMBUS PODICEPS](#)
[PINICOLA ENUCLEATOR](#)
[CARDUELIS PINUS](#)
[GYMNORHINUS CYANOCEPHALUS](#)
[VIREO PLUMBEUS](#)

[PRAIRIE FALCON](#)
[PURPLE MARTIN](#)
[PYGMY NUTHATCH](#)
[RED CROSSBILL](#)
[RED-BREASTED MERGANSER](#)
[RED-BREASTED NUTHATCH](#)
[RED-EYED VIREO](#)
[REDHEAD](#)
[RED-NAPED SAPSUCKER](#)
[RED-NECKED PHALAROPE](#)
[RED-TAILED HAWK](#)
[RED-WINGED BLACKBIRD](#)
[RING-BILLED GULL](#)
[RING-NECKED DUCK](#)
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[ROCK PIGEON](#)
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[ROSE-BREASTED GROSBEAK](#)
[ROUGH-LEGGED HAWK](#)
[RUBY-CROWNED KINGLET](#)
[RUDDY DUCK](#)
[RUFFED GROUSE](#)
[RUFOUS HUMMINGBIRD](#)
[RUFOUS-CROWNED SPARROW](#)
[SAGE SPARROW](#)
[SAGE THRASHER](#)
[SANDHILL CRANE](#)
[SAVANNAH SPARROW](#)
[SAY'S PHOEBE](#)
[SCOTT'S ORIOLE](#)
[SHARP-SHINNED HAWK](#)
[SHORT-EARED OWL](#)
[SNOW GOOSE](#)
[SNOWY EGRET](#)
[SNOWY PLOVER](#)
[SONG SPARROW](#)
[SOUTHWESTERN WILLOW FLYCATCHER](#)
[SPOTTED SANDPIPER](#)
[SPOTTED TOWHEE](#)
[STELLER'S JAY](#)
[SWAINSON'S HAWK](#)
[SWAINSON'S THRUSH](#)
[SWAMP SPARROW](#)
[TOWNSEND'S SOLITAIRE](#)

[FALCO MEXICANUS](#)
[PROGNE SUBIS](#)
[SITTA PYGMAEA](#)
[LOXIA CURVIROSTRA](#)
[MERGUS SERRATOR](#)
[SITTA CANADENSIS](#)
[VIREO OLIVACEUS](#)
[AYTHYA AMERICANA](#)
[SPHYRAPICUS NUCHALIS](#)
[PHALAROPUS LOBATUS](#)
[BUTEO JAMAICENSIS](#)
[AGELAIUS PHOENICEUS](#)
[LARUS DELAWARENSIS](#)
[AYTHYA COLLARIS](#)
[PHASIANUS COLCHICUS](#)
[COLUMBA LIVIA](#)
[SALPINCTES OBSOLETUS](#)
[PHEUCTICUS LUDOVICIANUS](#)
[BUTEO LAGOPUS](#)
[REGULUS CALENDULA](#)
[OXYURA JAMAICENSIS](#)
[BONASA UMBELLUS](#)
[SELASPHORUS RUFUS](#)
[AIMOPHILA RUFICEPS](#)
[AMPHISPIZA BELLI](#)
[OREOSCOPTES MONTANUS](#)
[GRUS CANADENSIS](#)
[PASSERCULUS SANDWICHENSIS](#)
[SAYORNIS SAYA](#)
[ICTERUS PARISORUM](#)
[ACCIPITER STRIATUS](#)
[ASIO FLAMMEUS](#)
[CHEN CAERULESCENS](#)
[EGRETTA THULA](#)
[CHARADRIUS ALEXANDRINUS](#)
[MELOSPIZA MELODIA](#)
[EMPIDONAX TRAILLII EXTIMUS](#)
[ACTITIS MACULARIUS](#)
[PIPILO MACULATUS](#)
[CYANOCITTA STELLERI](#)
[BUTEO SWAINSONI](#)
[CATHARUS USTULATUS](#)
[MELOSPIZA GEORGIANA](#)
[MYADESTES TOWNSENDI](#)

[TOWNSEND'S WARBLER](#)
[TREE SWALLOW](#)
[TUNDRA SWAN](#)
[TURKEY VULTURE](#)
[VARIED THRUSH](#)
[VEERY](#)
[VESPER SPARROW](#)
[VIOLET-GREEN SWALLOW](#)
[VIRGINIA'S WARBLER](#)
[WARBLING VIREO](#)
[WESTERN BLUEBIRD](#)
[WESTERN GREBE](#)
[WESTERN KINGBIRD](#)
[WESTERN MEADOWLARK](#)
[WESTERN SANDPIPER](#)
[WESTERN SCREECH-OWL](#)
[WESTERN SCRUB-JAY](#)
[WESTERN TANAGER](#)
[WESTERN WOOD-PEWEE](#)
[WHITE-BREASTED NUTHATCH](#)
[WHITE-CROWNED SPARROW](#)
[WHITE-FACED IBIS](#)
[WHITE-THROATED SPARROW](#)
[WHITE-THROATED SWIFT](#)
[WILD TURKEY - RIO GRANDE](#)
[WILLIAMSON'S SAPSUCKER](#)
[WILLOW FLYCATCHER](#)
[WILSON'S PHALAROPE](#)
[WILSON'S SNIPE](#)
[WILSON'S WARBLER](#)
[WINTER WREN](#)
[YELLOW WARBLER](#)
[YELLOW-BREASTED CHAT](#)
[YELLOW-HEADED BLACKBIRD](#)
[YELLOW-RUMPED WARBLER](#)

[DENDROICA TOWNSENDI](#)
[TACHYCINETA BICOLOR](#)
[CYGNUS COLUMBIANUS](#)
[CATHARTES AURA](#)
[IXOREUS NAEVIUS](#)
[CATHARUS FUSCESCENS](#)
[POOECETES GRAMINEUS](#)
[TACHYCINETA THALASSINA](#)
[VERMIVORA VIRGINIAE](#)
[VIREO GILVUS](#)
[SIALIA MEXICANA](#)
[AECHMOPHORUS OCCIDENTALIS](#)
[TYRANNUS VERTICALIS](#)
[STURNELLA NEGLECTA](#)
[CALIDRIS MAURI](#)
[MEGASCOPS KENNICOTTII](#)
[APHELOCOMA CALIFORNICA](#)
[PIRANGA LUDOVICIANA](#)
[CONTOPUS SORDIDULUS](#)
[SITTA CAROLINENSIS](#)
[ZONOTRICHIA LEUCOPHRYS](#)
[PLEGADIS CHIHUI](#)
[ZONOTRICHIA ALBICOLLIS](#)
[AERONAUTES SAXATALIS](#)
[MELEAGRIS GALLOPAVO INTERMEDIA](#)
[SPHYRAPICUS THYROIDEUS](#)
[EMPIDONAX TRAILLII](#)
[PHALAROPUS TRICOLOR](#)
[GALLINAGO DELICATA](#)
[WILSONIA PUSILLA](#)
[TROGLODYTES TROGLODYTES](#)
[DENDROICA PETECHIA](#)
[ICTERIA VIRENS](#)
[XANTHOCEPHALUS XANTHOCEPHALUS](#)
[DENDROICA CORONATA](#)

Mammals

Little Denmark

[AMERICAN BEAVER](#)
[AMERICAN MARTEN](#)
[AMERICAN MINK](#)
[AMERICAN PIKA](#)
[BADGER](#)
[BIG BROWN BAT](#)
[BIG FREE-TAILED BAT](#)
[BLACK BEAR](#)
[BLACK RAT](#)
[BLACK-TAILED JACKRABBIT](#)
[BOBCAT](#)
[BOTTA'S POCKET GOPHER](#)
[BRAZILIAN FREE-TAILED BAT](#)
[BRUSH MOUSE](#)
[BUSHY-TAILED WOODRAT](#)
[CANADA LYNX](#)
[CHISEL-TOOTHED KANGAROO RAT](#)
[CLIFF CHIPMUNK](#)
[COMMON GRAY FOX](#)
[COYOTE](#)
[DEER MOUSE](#)
[DESERT WOODRAT](#)
[DWARF SHREW](#)
[ELK OR WAPITI](#)
[ERMINE](#)
[GOLDEN-MANTLED GROUND SQUIRREL](#)
[HOARY BAT](#)
[HOPI CHIPMUNK](#)
[HOUSE MOUSE](#)
[LEAST CHIPMUNK](#)
[LITTLE BROWN MYOTIS](#)
[LONG-EARED MYOTIS](#)
[LONG-LEGGED MYOTIS](#)
[LONG-TAILED VOLE](#)
[LONG-TAILED WEASEL](#)
[MASKED SHREW](#)
[MERRIAM'S SHREW](#)
[MONTANE SHREW](#)
[MONTANE VOLE](#)
[MOOSE](#)
[MOUNTAIN COTTONTAIL](#)

[CASTOR CANADENSIS](#)
[MARTES AMERICANA](#)
[MUSTELA VISON](#)
[OCHOTONA PRINCEPS](#)
[TAXIDEA TAXUS](#)
[EPTESICUS FUSCUS](#)
[NYCTINOMOPS MACROTIS](#)
[URSUS AMERICANUS](#)
[RATTUS RATTUS](#)
[LEPUS CALIFORNICUS](#)
[LYNX RUFUS](#)
[THOMOMYS BOTTAE](#)
[TADARIDA BRASILIENSIS](#)
[PEROMYSCUS BOYLII](#)
[NEOTOMA CINEREA](#)
[LYNX CANADENSIS](#)
[DIPODOMYS MICROPS](#)
[NEOTAMIAS DORSALIS](#)
[UROCYON CINEREOARGENTEUS](#)
[CANIS LATRANS](#)
[PEROMYSCUS MANICULATUS](#)
[NEOTOMA LEPIDA](#)
[SOREX NANUS](#)
[CERVUS CANADENSIS](#)
[MUSTELA ERMINEA](#)
[SPERMOPHILUS LATERALIS](#)
[LASIURUS CINEREUS](#)
[NEOTAMIAS RUFUS](#)
[MUS MUSCULUS](#)
[NEOTAMIAS MINIMUS](#)
[MYOTIS LUCIFUGUS](#)
[MYOTIS EVOTIS](#)
[MYOTIS VOLANS](#)
[MICROTUS LONGICAUDUS](#)
[MUSTELA FRENATA](#)
[SOREX CINEREUS](#)
[SOREX MERRIAMI](#)
[SOREX MONTICOLUS](#)
[MICROTUS MONTANUS](#)
[ALCES ALCES](#)
[SYLVILAGUS NUTTALLII](#)

[MOUNTAIN LION OR COUGAR](#)
[MULE DEER](#)
[MUSKRAT](#)
[NORTH AMERICAN PORCUPINE](#)
[NORTHERN FLYING SQUIRREL](#)
[NORTHERN GRASSHOPPER MOUSE](#)
[NORTHERN POCKET GOPHER](#)
[NORTHERN RACCOON](#)
[NORWAY RAT](#)
[ORD'S KANGAROO RAT](#)
[PINYON \(PINON\) MOUSE](#)
[PIUTE GROUND SQUIRREL](#)
[PRONGHORN](#)
[RED FOX](#)
[RED SQUIRREL](#)
[RINGTAIL](#)
[ROCK SQUIRREL](#)
[SILVER-HAIRED BAT](#)
[SNOWSHOE HARE](#)
[STRIPED SKUNK](#)
[TOWNSEND'S BIG-EARED BAT](#)
[UINTA CHIPMUNK](#)
[UINTA GROUND SQUIRREL](#)
[VAGRANT SHREW](#)
[WATER SHREW](#)
[WATER VOLE](#)
[WESTERN HARVEST MOUSE](#)
[WESTERN JUMPING MOUSE](#)
[WESTERN PIPISTRELLE](#)
[WESTERN SMALL-FOOTED MYOTIS](#)
[WESTERN SPOTTED SKUNK](#)
[WHITE-TAILED ANTELOPE SQUIRREL](#)
[WHITE-TAILED JACKRABBIT](#)
[WOLVERINE](#)
[YELLOW-BELLIED MARMOT](#)

Sevier Valley

[AMERICAN BEAVER](#)
[AMERICAN MINK](#)
[AMERICAN PIKA](#)
[BADGER](#)
[BIG BROWN BAT](#)
[BIG FREE-TAILED BAT](#)
[BLACK BEAR](#)

[FELIS CONCOLOR](#)
[ODOCOILEUS HEMIONUS](#)
[ONDATRA ZIBETHICUS](#)
[ERETHIZON DORSATUM](#)
[GLAUCOMYS SABRINUS](#)
[ONYCHOMYS LEUCOGASTER](#)
[THOMOMYS TALPOIDES](#)
[PROCYON LOTOR](#)
[RATTUS NORVEGICUS](#)
[DIPODOMYS ORDII](#)
[PEROMYSCUS TRUEI](#)
[SPERMOPHILUS MOLLIS](#)
[ANTILOCAPRA AMERICANA](#)
[VULPES VULPES](#)
[TAMIASCIURUS HUDSONICUS](#)
[BASSARISCUS ASTUTUS](#)
[SPERMOPHILUS VARIEGATUS](#)
[LASIONYCTERIS NOCTIVAGANS](#)
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YUMA MYOTIS

MYOTIS YUMANENSIS

Reptiles

Little Denmark

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[COMMON SAGEBRUSH LIZARD](#)
[COMMON SIDEBLOTCHED LIZARD](#)
[DESERT HORNED LIZARD](#)
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[EASTERN FENCE LIZARD](#)
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[GREAT BASIN \(WESTERN\) RATTLESNAKE](#)
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[GREATER SHORT-HORNED LIZARD](#)
[LONG-NOSED LEOPARD LIZARD](#)
[MIDGET FADED \(WESTERN\) RATTLESNAKE](#)
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[NIGHTSNAKE](#)
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[TERRESTRIAL GARTERSNAKE](#)
[TIGER WHIPTAIL](#)
[WESTERN SKINK](#)

[THAMNOPHIS SIRTALIS](#)
[SCELOPORUS GRACIOSUS](#)
[UTA STANSBURIANA](#)
[PHRYNOSOMA PLATYRHINOS](#)
[SCELOPORUS MAGISTER](#)
[SCELOPORUS UNDULATUS](#)
[COLUBER CONSTRICTOR](#)
[PITUOPHIS CATENIFER](#)
[CROTALUS OREGANUS LUTOSUS](#)
[CROTAPHYTUS BICINCTORES](#)
[PHRYNOSOMA HERNANDESI](#)
[GAMBELIA WISLIZENII](#)
[CROTALUS OREGANUS CONCOLOR](#)
[LAMPROPELTIS TRIANGULUM](#)
[HYP SIGLENA TORQUATA](#)
[UROSAURUS ORNATUS](#)
[DIADOPHIS PUNCTATUS](#)
[CHARINA BOTTAE](#)
[LAMPROPELTIS PYROMELANA](#)
[MASTICOPHIS TAENIATUS](#)
[THAMNOPHIS ELEGANS](#)
[ASPIDOSCELIS TIGRIS](#)
[EUMECES SKILTONIANUS](#)

Sevier Valley

[COACHWHIP](#)
[COMMON GARTERSNAKE](#)
[COMMON SAGEBRUSH LIZARD](#)
[COMMON SIDEBLOTCHED LIZARD](#)
[DESERT HORNED LIZARD](#)
[DESERT SPINY LIZARD](#)
[EASTERN FENCE LIZARD](#)
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[GOPHERSNAKE](#)
[GREAT BASIN \(WESTERN\) RATTLESNAKE](#)
[GREAT BASIN COLLARED LIZARD](#)
[GREATER SHORT-HORNED LIZARD](#)
[LONG-NOSED LEOPARD LIZARD](#)
[MIDGET FADED \(WESTERN\) RATTLESNAKE](#)
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[MASTICOPHIS FLAGELLUM](#)
[THAMNOPHIS SIRTALIS](#)
[SCELOPORUS GRACIOSUS](#)
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[CROTALUS OREGANUS LUTOSUS](#)
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[NIGHTSNAKE](#)
[ORNATE TREE LIZARD](#)
[RING-NECKED SNAKE](#)
[SONORAN MOUNTAIN KINGSSNAKE](#)
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[HYP SIGLENA TORQUATA](#)
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[DIADOPHIS PUNCTATUS](#)
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[MASTICOPHIS TAENIATUS](#)
[THAMNOPHIS ELEGANS](#)
[ASPIDOSCELIS TIGRIS](#)
[EUMECES SKILTONIANUS](#)

Headwaters

[COACHWHIP](#)
[COMMON GARTERSNAKE](#)
[COMMON SAGEBRUSH LIZARD](#)
[COMMON SIDEBLOTCHED LIZARD](#)
[DESERT HORNED LIZARD](#)
[DESERT SPINY LIZARD](#)
[EASTERN COLLARED LIZARD](#)
[EASTERN FENCE LIZARD](#)
[EASTERN RACER](#)
[GOPHERSNAKE](#)
[GREAT BASIN \(WESTERN\) RATTLESNAKE](#)
[GREATER SHORT-HORNED LIZARD](#)
[GREEN PRAIRIE \(PRAIRIE\) RATTLESNAKE](#)
[HOPI \(PRAIRIE\) RATTLESNAKE](#)
[LONG-NOSED LEOPARD LIZARD](#)
[MIDGET FADED \(WESTERN\) RATTLESNAKE](#)
[MILKSNAKE](#)
[NIGHTSNAKE](#)
[ORNATE TREE LIZARD](#)
[PAINTED TURTLE](#)
[PLATEAU STRIPED WHIPTAIL](#)
[RING-NECKED SNAKE](#)
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[HYP SIGLENA TORQUATA](#)
[UROSAURUS ORNATUS](#)
[CHRYSEMYS PICTA](#)
[ASPIDOSCELIS VELOX](#)
[DIADOPHIS PUNCTATUS](#)
[LAMPROPELTIS PYROMELANA](#)
[MASTICOPHIS TAENIATUS](#)
[THAMNOPHIS ELEGANS](#)
[ASPIDOSCELIS TIGRIS](#)
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Boulder Loop

[COACHWHIP](#)
[COMMON GARTERSNAKE](#)
[COMMON SAGEBRUSH LIZARD](#)
[COMMON SIDEBLOTCHED LIZARD](#)

[MASTICOPHIS FLAGELLUM](#)
[THAMNOPHIS SIRTALIS](#)
[SCELOPORUS GRACIOSUS](#)
[UTA STANSBURIANA](#)

[DESERT SPINY LIZARD](#)
[EASTERN COLLARED LIZARD](#)
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[GREAT BASIN \(WESTERN\) RATTLESNAKE](#)
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[SONORAN MOUNTAIN KINGSSNAKE](#)
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[TIGER WHIPTAIL](#)
[WESTERN SKINK](#)

[SCELOPORUS MAGISTER](#)
[CROTAPHYTUS COLLARIS](#)
[SCELOPORUS UNDULATUS](#)
[COLUBER CONSTRUCTOR](#)
[PITUOPHIS CATENIFER](#)
[CROTALUS OREGANUS LUTOSUS](#)
[PHRYNOSOMA HERNANDESI](#)
[CROTALUS VIRIDIS NUNTIUS](#)
[GAMBELIA WISLIZENII](#)
[CROTALUS OREGANUS CONCOLOR](#)
[LAMPROPALTIS TRIANGULUM](#)
[HYPISIGLENA TORQUATA](#)
[DIADOPHIS PUNCTATUS](#)
[LAMPROPALTIS PYROMELANA](#)
[MASTICOPHIS TAENIATUS](#)
[THAMNOPHIS ELEGANS](#)
[ASPIDOSCELIS TIGRIS](#)
[EUMECES SKILTONIANUS](#)

Under the Rim

[BLACK-NECKED GARTERSNAKE](#)
[COACHWHIP](#)
[COMMON GARTERSNAKE](#)
[COMMON LESSER EARLESS LIZARD](#)
[COMMON SAGEBRUSH LIZARD](#)
[COMMON SIDEBLOTCHED LIZARD](#)
[DESERT HORNED LIZARD](#)
[DESERT SPINY LIZARD](#)
[EASTERN COLLARED LIZARD](#)
[EASTERN FENCE LIZARD](#)
[EASTERN RACER](#)
[GOPHERSNAKE](#)
[GREAT BASIN \(WESTERN\) RATTLESNAKE](#)
[GREAT BASIN COLLARED LIZARD](#)
[GREATER SHORT-HORNED LIZARD](#)
[GREEN PRAIRIE \(PRAIRIE\) RATTLESNAKE](#)
[GROUNDSSNAKE](#)
[HOPI \(PRAIRIE\) RATTLESNAKE](#)
[LONG-NOSED LEOPARD LIZARD](#)
[LONG-NOSED SNAKE](#)
[MIDGET FADED \(WESTERN\) RATTLESNAKE](#)
[MILKSNAKE](#)
[NIGHTSNAKE](#)
[ORNATE TREE LIZARD](#)

[THAMNOPHIS CYRTOPSIS](#)
[MASTICOPHIS FLAGELLUM](#)
[THAMNOPHIS SIRTALIS](#)
[HOLBROOKIA MACULATA](#)
[SCELOPORUS GRACIOSUS](#)
[UTA STANSBURIANA](#)
[PHRYNOSOMA PLATYRHINOS](#)
[SCELOPORUS MAGISTER](#)
[CROTAPHYTUS COLLARIS](#)
[SCELOPORUS UNDULATUS](#)
[COLUBER CONSTRUCTOR](#)
[PITUOPHIS CATENIFER](#)
[CROTALUS OREGANUS LUTOSUS](#)
[CROTAPHYTUS BICINCTORES](#)
[PHRYNOSOMA HERNANDESI](#)
[CROTALUS VIRIDIS VIRIDIS](#)
[SONORA SEMIANNULATA](#)
[CROTALUS VIRIDIS NUNTIUS](#)
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[WESTERN BANDED GECKO](#)
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[WESTERN PATCH-NOSED SNAKE](#)
[WESTERN SKINK](#)

[CHRYSEMYS PICTA](#)
[ASPIDOSCELIS VELOX](#)
[DIADOPHIS PUNCTATUS](#)
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[MASTICOPHIS TAENIATUS](#)
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[ASPIDOSCELIS TIGRIS](#)
[COLEONYX VARIEGATUS](#)
[TRIMORPHODON BISCUTATUS](#)
[SALVADORA HEXALEPIS](#)
[EUMECES SKILTONIANUS](#)

Arachnids & Insects

There are many varieties of arachnids and insects within the MPNHA but only one that is notable, the Coral Pink Sand Dunes Tiger Beetle. The Tiger Beetle can only be found in its single habitat located within the Under the Rim heritage district. Great caution should be exercised for any project in the vicinity of the Tiger Beetle's habitat.

Under the Rim

[CORAL PINK SAND DUNES TIGER BEETLE](#)

[CICINDELA LIMBATA ALBISSIMA](#)

Threatened and Endangered Species, Candidate Species, and Species of Special Concern

The Endangered Species Act (1973) requires all federally funded projects to examine that impact listed species. To accomplish this, the Utah Department of Natural Resources, Wildlife Resources Division maintains a listing of all species of concern within the state. These species have been included on the list either through federal action or by identification by other agencies as species of concern.

The following is the Utah State maintained listing of the Threatened and Endangered Species, Candidate species, and recognized Species of Special Concern. The full list is included since there may be undocumented species habitat within a specific heritage district. Once a project is proposed and compliance is required for a specific project, the project's area of potential effect should be reviewed for the possible presence of all of the relevant listed species. The tables following this list show the known sensitive species distributions for each heritage district.

Utah State Listings

Plants

The following plants are protected and are listed as threatened (T) or endangered (E):

Common Name	Scientific Name	Listed Status
Common Bearpoppy	<i>Arctomecon humilis</i>	E
Welsh's Milkweed	<i>Asclepias welshii</i>	T
Deseret Milkvetch	<i>Astragalus desereticus</i>	T
Hermit Milkvetch	<i>Astragalus eremiticus</i>	E
	<i>Astragalus ampullariodes</i>	E
Paradox Milkvetch	<i>Astragalus homgreniorum</i>	E
Monti's Milkvetch	<i>Astragalus limnocharis</i>	T
	<i>Astragalus montii</i>	T
Navajo Sedge	<i>Carex specuicola</i>	T
Jones' Waxdogbane	<i>Cycladenia humilis</i>	T
	<i>Cycladenia jonesii</i>	T
Maguire's Fleabane	<i>Erigeron maguirei</i>	T
Uinta Basin Waxfruit	<i>Glaucocarpum suffrutescens</i>	E
	<i>Schoenocrambe suffrutescens</i>	E
Streambank Wild Hollyhock	<i>Iliamna rivularis</i>	E
	<i>Iliamna corei</i>	E
King's Mousetail	<i>Ivesia kingii</i>	T
Barneby's Pepperweed	<i>Lepidium barneybyanum</i>	E
Tum Bladderpod	<i>Lesquerella Rubicundula</i>	E
	<i>Lesquerella tumulosa</i>	E
Despain's Pincushion Cactus	<i>Pediocactus despainii</i>	E
Winkler's Pincushion Cactus	<i>Pediocactus winkleri</i>	T
Atwood's Phacelia	<i>Phacelia argillacea</i>	E
Maguire's Primrose	<i>Primula cusickiana</i>	T
	<i>Primula maguirei</i>	T
Fall Buttercup	<i>Ranunculus aestivalis</i>	E
	<i>Ranunculus acriformis</i>	E
Uinta Basin Plainsmustard	<i>Schoenocrambe argillacea</i>	T
Syes Butte Plainsmustard	<i>Schoenocrambe barnebyi</i>	E

Uinta Basin Hookless Cactus	Sclerocactus glaucus	T
Siler's Pincushion Cactus	Sclerocactus sileri	T
	Pediocactus sileri	T
Wright's Fishhook Cactus	Sclerocactus wrightiae	E
Ute Lady's Tresses	Spiranthes diluvialis	T
Last Chance Townsend Daisy	Townsendia aprica	T

Wildlife

Birds

Federal Candidate Species

Yellow-billed Cuckoo

Coccyzus americanus

Federally Threatened Species

Bald Eagle

Haliaeetus leucocephalus

Mexican Spotted Owl

Strix occidentalis lucida

Federally Endangered Species

California Condor (experimental)

Gymnogyps californianus

Whooping Crane (extirpated)

Grus americana

Southwestern Willow Flycatcher

Empidonax traillii extimus

Conservation Agreement Species

Northern Goshawk

Accipiter gentilis

Wildlife Species of Concern

Grasshopper Sparrow

Ammodramus savannarum

Short-eared Owl

Asio flammeus

Burrowing Owl

Athene cunicularia

Ferruginous Hawk

Buteo regalis

Greater Sage-grouse

Centrocercus urophasianus

Black Swift

Cypseloides niger

Bobolink

Dolichonyx oryzivorus

Lewis's Woodpecker

Melanerpes lewis

Long-billed Curlew

Numenius americanus

American White Pelican

Pelecanus erythrorhynchos

Three-toed Woodpecker

Picoides tridactylus

Sharp-tailed Grouse

Tympanuchus phasianellus

Mammals

Federal Candidate Species

(None)

Federally Threatened Species

Utah prairie-dog

Cynomys parvidens

Brown/Grizzly bear (extirpated)

Ursus arctos

Canada lynx

Lynx canadensis

Federally Endangered Species

Black-footed ferret (experimental, non-essential
in Duchesne and Uintah counties)

Mustela nigripes

Gray wolf (extirpated)

Canis lupus

Conservation Agreement Species
(None)

Wildlife Species of Concern

Preble's shrew
Townsend's big-eared bat
Spotted bat
Allen's big-eared bat
Western red bat
Fringed myotis
Big free-tailed bat
Pygmy rabbit
Gunnison's prairie-dog
White-tailed prairie-dog
Silky pocket mouse
Dark kangaroo mouse
Mexican vole
Kit fox

Sorex preblei
Corynorhinus townsendii
Euderma maculatum
Idionycteris phyllotis
Lasiurus blossevillii
Myotis thysanodes
Nyctinomops macrotis
Brachylagus idahoensis
Cynomys gunnisoni
Cynomys leucurus
Perognathus flavus
Microdipodops megacephalus
Microtus mexicanus
Vulpes macrotis

Amphibians

Federal Candidate Species

Relict leopard frog (extirpated)

Rana onca

Federally Threatened Species
(None)

Federally Endangered Species
(None)

Conservation Agreement Species
Columbia spotted frog

Rana luteiventris

Wildlife Species of Concern

Western toad
Arizona toad

Bufo boreas
Bufo microscaphus

Reptiles

Federal Candidate Species
(None)

Federally Threatened Species
Desert tortoise

Gopherus agassizii

Federally Endangered Species
(None)

Conservation Agreement Species
(None)

Wildlife Species of Concern

Zebra-tailed lizard
Western banded gecko
Desert iguana
Gila monster
Common chuckwalla
Desert night lizard
Sidewinder
Speckled rattlesnake
Mojave rattlesnake
Cornsake
Smooth greensnake
Western threadsnake

Callisaurus draconoides
Coleonyx variegatus
Dipsosaurus dorsalis
Heloderma suspectum
Sauromalus ater
Xantusia vigilis
Crotalus cerastes
Crotalus mitchellii
Crotalus scutulatus
Elaphe guttata
Opheodrys vernalis
Leptotyphlops humilis

Fish**Federal Candidate Species**

(None)

Federally Threatened Species

Lahontan cutthroat trout (introduced)

Oncorhynchus clarkii henshawi

Federally Endangered Species

Humpback chub
Bonytail
Virgin chub
Colorado pikeminnow
Woundfin
June sucker
Razorback sucker

Gila cypha
Gila elegans
Gila seminuda
Ptychocheilus lucius
Plagopterus argentissimus
Chasmistes liorus
Xyrauchen texanus

Conservation Agreement Species

Bonneville cutthroat trout
Colorado River cutthroat trout
Virgin spinedace
Least chub
Roundtail chub
Bluehead sucker
Flannelmouth sucker

Oncorhynchus clarkii utah
Oncorhynchus clarkii pleuriticus
Lepidomeda mollispinis mollispinis
Iotichthys phlegethontis
Gila robusta
Catostomus discobolus
Catostomus latipinnis

Wildlife Species of Concern

Leatherside chub
Desert sucker
Yellowstone cutthroat trout
Bear Lake whitefish
Bonneville cisco
Bonneville whitefish
Bear Lake sculpin

Gila copei
Catostomus clarkii
Oncorhynchus clarkii bouvieri
Prosopium abyssicola
Prosopium gemmifer
Prosopium spilonotus
Cottus extensus

Mollusks

Federal Candidate Species

Ogden rocky mountain snail
Fat-whorled pond snail

Oreohelix peripherica wasatchensis
Stagnicola bonnevillensis

Federally Threatened Species

(None)

Federally Endangered Species

Kanab amber snail
Desert valvata (extirpated)

Oxyloma kanabense
Valvata utahensis

Conservation Agreement Species

(None)

Wildlife Species of Concern

Southern tightcoil
Eureka mountain snail
lyrate mountain snail
Brian Head mountain snail
Deseret mountain snail
Yavapai mountainsnail
cloaked physa
Utah physa
wet-rock physa
longitudinal gland pyrg
smooth Glenwood pyrg
desert springsnail
Otter Creek pyrg
Hamlin Valley pyrg
carinate Glenwood pyrg
Ninemile pyrg
bifid duct pyrg
Bear Lake spring snail
Black Canyon pyrg
sub-globose Snake pyrg
southern Bonneville pyrg
northwest Bonneville pyrg
California floater
western pearlshell

Ogaridiscus subrupicola
Oreohelix eurekaensis
Oreohelix haydeni
Oreohelix parawanensis
Oreohelix peripherica
Oreohelix yavapai
Physa megalochlamys
Physella utahensis
Physella zionis
Pyrgulopsis anguina
Pyrgulopsis chamberlini
Pyrgulopsis deserta
Pyrgulopsis fusca
Pyrgulopsis hamlinensis
Pyrgulopsis inopinata
Pyrgulopsis nonaria
Pyrgulopsis peculiaris
Pyrgulopsis pilsbryana
Pyrgulopsis plicata
Pyrgulopsis saxatilis
Pyrgulopsis transversa
Pyrgulopsis variegata
Anodonta californiensis
Margaritifera falcate

Sensitive Species by Heritage District

Plants

The sensitive plants occur in small areas throughout the MPNHA, many of them known to occur on federal land. However, it is possible for some sensitive plants to occur in undocumented locations on private lands. Therefore a site survey of land to be cleared may be necessary to assure no sensitive plant species are present.

Little Denmark

Threatened species:

[HELIOTROPE MILKVETCH](#)

[ASTRAGALUS MONTII](#)

Sevier Valley

Threatened species:

[HELIOTROPE MILKVETCH](#)

[ASTRAGALUS MONTII](#)

[LAST CHANCE TOWNSENDIA](#)

[TOWNSENDIA APRICA](#)

Endangered species:

[WRIGHT FISHHOOK CACTUS](#)

[SCLEROCACTUS WRIGHTIAE](#)

Species of concern:

[UTAH ANGELICA](#)

[ANGELICA WHEELERI](#)

Headwaters

Threatened species:

[JONES CYCLADENIA](#)

[CYCLADENIA HUMILIS VAR JONESII](#)

[MAGUIRE DAISY](#)

[ERIGERON MAGUIREI](#)

[UTE LADIES'-TRESSES](#)

[SPIRANTHES DILUVIALIS](#)

Endangered species:

[AUTUMN BUTTERCUP](#)

[RANUNCULUS AESTIVALIS](#)

Species of concern:

[AQUARIUS INDIAN PAINTBRUSH](#)

[CASTILLEJA AQUARIENSIS](#)

[UTAH ANGELICA](#)

[ANGELICA WHEELERI](#)

Boulder Loop

Threatened species:

[LAST CHANCE TOWNSENDIA](#)

[TOWNSENDIA APRICA](#)

[MAGUIRE DAISY](#)

[ERIGERON MAGUIREI](#)

[UTE LADIES'-TRESSES](#)

[SPIRANTHES DILUVIALIS](#)

[WINKLER PINCUSHION CACTUS](#)

[PEDIOCACTUS WINKLERI](#)

Endangered species:

[BARNEBY REED-MUSTARD](#)
[WRIGHT FISHHOOK CACTUS](#)

[SCHOENOCRAMBE BARNEBYI](#)
[SCLEROCACTUS WRIGHTIAE](#)

Species of concern:

[AQUARIUS INDIAN](#)
[PAINTBRUSH](#)

[CASTILLEJA AQUARIENSIS](#)

[FLAT TOPS WILD BUCKWHEAT](#)

[ERIOGONUM CORYMBOSUM VAR.](#)
[SMITHII](#)

Under the Rim

Threatened species:

[LAST CHANCE TOWNSENDIA](#)
[MAGUIRE DAISY](#)
[UTE LADIES'-TRESSES](#)
[WINKLER PINCUSHION CACTUS](#)

[TOWNSENDIA APRICA](#)
[ERIGERON MAGUIREI](#)
[SPIRANTHES DILUVIALIS](#)
[PEDIOCACTUS WINKLERI](#)

Endangered species:

[BARNEBY REED-MUSTARD](#)
[WRIGHT FISHHOOK CACTUS](#)

[SCHOENOCRAMBE BARNEBYI](#)
[SCLEROCACTUS WRIGHTIAE](#)

Species of concern:

[AQUARIUS INDIAN](#)
[PAINTBRUSH](#)

[CASTILLEJA AQUARIENSIS](#)

[FLAT TOPS WILD BUCKWHEAT](#)

[ERIOGONUM CORYMBOSUM VAR.](#)
[SMITHII](#)

Wildlife

Birds

The entire MPNHA provide habitat to a wide range of sensitive bird species. Any project that involves land clearing should be reviewed for the possibility of harming the habitat of the applicable bird species.

Little Denmark

Threatened species:

[BALD EAGLE](#)

[HALIAEETUS LEUCOCEPHALUS](#)

Endangered species:

None

Conservation agreement species:

[NORTHERN GOSHAWK](#)

[ACCIPITER GENTILIS](#)

Species of concern:

[GRASSHOPPER SPARROW](#)

[AMMODRAMUS SAVANNARUM](#)

[SHORT-EARED OWL](#)

[ASIO FLAMMEUS](#)

[BURROWING OWL](#)

[ATHENE CUNICULARIA](#)

[FERRUGINOUS HAWK](#)

[BUTEO REGALIS](#)

[GREATER SAGE-GROUSE](#)

[CENTROCERCUS UROPHASIANUS](#)

[BLACK SWIFT](#)

[CYPSELOIDES NIGER](#)

[BOBOLINK](#)

[DOLICHONYX ORYZIVORUS](#)

[LONG-BILLED CURLEW](#)

[NUMENIUS AMERICANUS](#)

[AMERICAN WHITE PELICAN](#)

[PELECANUS ERYTHORHYNCHOS](#)

Sevier Valley

Threatened species:

[BALD EAGLE](#)

[HALIAEETUS LEUCOCEPHALUS](#)

Endangered species:

Conservation agreement species:

[NORTHERN GOSHAWK](#)

[ACCIPITER GENTILIS](#)

Species of concern:

[GRASSHOPPER SPARROW](#)

[AMMODRAMUS SAVANNARUM](#)

[SHORT-EARED OWL](#)

[ASIO FLAMMEUS](#)

[BURROWING OWL](#)

[ATHENE CUNICULARIA](#)

[FERRUGINOUS HAWK](#)

[BUTEO REGALIS](#)

[GREATER SAGE-GROUSE](#)

[CENTROCERCUS UROPHASIANUS](#)

[BLACK SWIFT](#)

[CYPSELOIDES NIGER](#)

[BOBOLINK](#)
[LONG-BILLED CURLEW](#)
[AMERICAN WHITE PELICAN](#)

[DOLICHONYX ORYZIVORUS](#)
[NUMENIUS AMERICANUS](#)
[PELECANUS ERYTHORHYNCHOS](#)

Headwaters

Threatened species:

[BALD EAGLE](#)
[MEXICAN SPOTTED OWL](#)

[HALIAEETUS LEUCOCEPHALUS](#)
[STRIX OCCIDENTALIS LUCIDA](#)

Endangered species:

[CALIFORNIA CONDOR](#)
[SOUTHWESTERN WILLOW FLYCATCHER](#)

[GYMNOGYPS CALIFORNIANUS](#)
[EMPIDONAX TRAILLII EXTIMUS](#)

Conservation agreement species:

[NORTHERN GOSHAWK](#)

[ACCIPITER GENTILIS](#)

Species of concern:

[SHORT-EARED OWL](#)
[BURROWING OWL](#)
[GREATER SAGE-GROUSE](#)
[BLACK SWIFT](#)
[BOBOLINK](#)
[LEWIS'S WOODPECKER](#)
[LONG-BILLED CURLEW](#)

[ASIO FLAMMEUS](#)
[ATHENE CUNICULARIA](#)
[CENTROCERCUS UROPHASIANUS](#)
[CYPSELOIDES NIGER](#)
[DOLICHONYX ORYZIVORUS](#)
[MELANERPES LEWIS](#)
[NUMENIUS AMERICANUS](#)

Boulder Loop

Threatened species:

[MEXICAN SPOTTED OWL](#)

[STRIX OCCIDENTALIS LUCIDA](#)

Endangered species:

[CALIFORNIA CONDOR](#)
[SOUTHWESTERN WILLOW FLYCATCHER](#)

[GYMNOGYPS CALIFORNIANUS](#)
[EMPIDONAX TRAILLII EXTIMUS](#)

Conservation agreement species:

[NORTHERN GOSHAWK](#)

[ACCIPITER GENTILIS](#)

Species of concern:

[SHORT-EARED OWL](#)
[BURROWING OWL](#)
[FERRUGINOUS HAWK](#)
[GREATER SAGE-GROUSE](#)
[BLACK SWIFT](#)

[ASIO FLAMMEUS](#)
[ATHENE CUNICULARIA](#)
[BUTEO REGALIS](#)
[CENTROCERCUS UROPHASIANUS](#)
[CYPSELOIDES NIGER](#)

[BOBOLINK](#)
[LEWIS'S WOODPECKER](#)
[LONG-BILLED CURLEW](#)

[DOLICHONYX ORYZIVORUS](#)
[MELANERPES LEWIS](#)
[NUMENIUS AMERICANUS](#)

Under the Rim

Threatened species:

[BALD EAGLE](#)
[MEXICAN SPOTTED OWL](#)

[HALIAEETUS LEUCOCEPHALUS](#)
[STRIX OCCIDENTALIS LUCIDA](#)

Endangered species:

[CALIFORNIA CONDOR](#)
[SOUTHWESTERN WILLOW FLYCATCHER](#)

[GYMNOGYPS CALIFORNIANUS](#)
[EMPIDONAX TRAILLII EXTIMUS](#)

Conservation agreement species:

[NORTHERN GOSHAWK](#)

[ACCIPITER GENTILIS](#)

Species of concern:

[SHORT-EARED OWL](#)
[BURROWING OWL](#)
[FERRUGINOUS HAWK](#)
[GREATER SAGE-GROUSE](#)
[BLACK SWIFT](#)
[BOBOLINK](#)
[LEWIS'S WOODPECKER](#)
[LONG-BILLED CURLEW](#)

[ASIO FLAMMEUS](#)
[ATHENE CUNICULARIA](#)
[BUTEO REGALIS](#)
[CENTROCERCUS UROPHASIANUS](#)
[CYPSELOIDES NIGER](#)
[DOLICHONYX ORYZIVORUS](#)
[MELANERPES LEWIS](#)
[NUMENIUS AMERICANUS](#)

Mammals

The MPNHA provides habitat for a number of sensitive species. Any project involving land clearing should be carefully reviewed against the known habitat for the sensitive species known to be present in the applicable heritage district.

Little Denmark

Threatened species:

[CANADA LYNX](#)

[LYNX CANADENSIS](#)

Endangered species:

None

Species of concern:

[TOWNSEND'S BIG-EARED BAT](#)
[BIG FREE-TAILED BAT](#)

[CORYNORHINUS TOWNSENDII](#)
[NYCTINOMOPS MACROTIS](#)

Sevier Valley

Threatened species:

[UTAH PRAIRIE-DOG](#)
[CANADA LYNX](#)

[CYNOMYS PARVIDENS](#)
[LYNX CANADENSIS](#)

Endangered species:

None

Species of concern:

[TOWNSEND'S BIG-EARED BAT](#)
[WESTERN RED BAT](#)
[BIG FREE-TAILED BAT](#)

[CORYNORHINUS TOWNSENDII](#)
[LASIURUS BLOSSEVILLII](#)
[NYCTINOMOPS MACROTIS](#)

Headwaters

Threatened species:

[UTAH PRAIRIE-DOG](#)
[CANADA LYNX](#)

[CYNOMYS PARVIDENS](#)
[LYNX CANADENSIS](#)

Endangered species:

None

Species of concern:

[TOWNSEND'S BIG-EARED BAT](#)
[WESTERN RED BAT](#)
[BIG FREE-TAILED BAT](#)

[CORYNORHINUS TOWNSENDII](#)
[LASIURUS BLOSSEVILLII](#)
[NYCTINOMOPS MACROTIS](#)

Boulder Loop

Threatened species:

[UTAH PRAIRIE-DOG](#)
[CANADA LYNX](#)

[CYNOMYS PARVIDENS](#)
[LYNX CANADENSIS](#)

Endangered species:

None

Species of concern:

[TOWNSEND'S BIG-EARED BAT](#)
[WESTERN RED BAT](#)
[BIG FREE-TAILED BAT](#)

[CORYNORHINUS TOWNSENDII](#)
[LASIURUS BLOSSEVILLII](#)
[NYCTINOMOPS MACROTIS](#)

Under the Rim

Threatened species:

[CANADA LYNX](#)

[LYNX CANADENSIS](#)

Endangered species:

Species of concern:

[TOWNSEND'S BIG-EARED BAT](#)

[CORYNORHINUS TOWNSENDII](#)

[ALLEN'S BIG-EARED BAT](#)

[IDIONYCTERIS PHYLLOTIS](#)

[WESTERN RED BAT](#)

[LASIURUS BLOSSEVILLII](#)

[FRINGED MYOTIS](#)

[MYOTIS THYSANODES](#)

[BIG FREE-TAILED BAT](#)

[NYCTINOMOPS MACROTIS](#)

Amphibians

While amphibians are present in the MPNHA, the area provides only sparse habitat for sensitive species.

Little Denmark

Threatened species:

None

Endangered species:

None

Conservation agreement species:

[COLUMBIA SPOTTED FROG](#)

[RANA LUTEIVENTRIS](#)

Species of concern:

[WESTERN \(BOREAL\) TOAD](#)

[BUFO BOREAS](#)

Sevier Valley

Threatened species:

None

Endangered species:

None

Conservation agreement species:

[COLUMBIA SPOTTED FROG](#)

[RANA LUTEIVENTRIS](#)

Species of concern:

[WESTERN \(BOREAL\) TOAD](#)

[BUFO BOREAS](#)

Headwaters

Threatened species:

None

Endangered species:

None

Conservation agreement species:

[COLUMBIA SPOTTED FROG](#)

[RANA LUTEIVENTRIS](#)

Species of concern:

[WESTERN \(BOREAL\) TOAD](#)

[BUFO BOREAS](#)

Boulder Loop

Threatened species:

None

Endangered species:

None

Conservation agreement species:

[COLUMBIA SPOTTED FROG](#)

[RANA LUTEIVENTRIS](#)

Species of concern:

[WESTERN \(BOREAL\) TOAD](#)

[BUFO BOREAS](#)

Under the Rim

Threatened species:

None

Endangered species:

None

Species of concern:

[ARIZONA TOAD](#)

[BUFO MICROSCAPHUS](#)

Reptiles

The MPNHA, while rich in areas with reptiles, has only one species of concern, the Western Banded Gecko, with habitat located solely in the far western section of the Under the Rim heritage district.

Little Denmark

Threatened species:

None

Endangered species:

None

Species of concern:

None

Sevier Valley

Threatened species:

None

Endangered species:

None

Species of concern:

None

Headwaters

Threatened species:

None

Endangered species:

None

Species of concern:

None

Boulder Loop

Threatened species:

None

Endangered species:

None

Species of concern:

None

Under the Rim

Threatened species:

None

Endangered species:

None

Species of concern:

[WESTERN BANDED GECKO](#)

[COLEONYX VARIEGATUS](#)

Fish

The sensitive fish species located within the MPNHA occur mostly within State or Federal controlled waterways and water bodies. Any river restoration project undertaken that involves dredging must be carefully reviewed for the presence of sensitive fish.

Little Denmark

Threatened species:

[LEATHERSIDE CHUB](#)

[GILA COPEI](#)

Endangered species:

None

Species of concern:

None

Sevier Valley

Threatened species:

None

Endangered species:

None

Conservation agreement species:

[BONNEVILLE CUTTHROAT TROUT](#)

[ONCORHYNCHUS CLARKII UTAH](#)

[COLORADO RIVER CUTTHROAT TROUT](#)

[ONCORHYNCHUS CLARKII PLEURITICUS](#)

Species of concern:

[LEATHERSIDE CHUB](#)

[GILA COPEI](#)

Headwaters

Threatened species:

None

Endangered species:

[HUMPBACK CHUB](#)

[BONYTAIL](#)

[COLORADO PIKEMINNOW](#)

[GILA CYPHA](#)

[GILA ELEGANS](#)

[PTYCHOCEILUS LUCIUS](#)

Conservation agreement species:

[BONNEVILLE CUTTHROAT TROUT](#)

[COLORADO RIVER CUTTHROAT TROUT](#)

[ROUNDTAIL CHUB](#)

[BLUEHEAD SUCKER](#)

[FLANNELMOUTH SUCKER](#)

[ONCORHYNCHUS CLARKII UTAH](#)

[ONCORHYNCHUS CLARKII PLEURITICUS](#)

[GILA ROBUSTA](#)

[CATOSTOMUS DISCOBOLUS](#)

[CATOSTOMUS LATIPINNIS](#)

Species of concern:

[LEATHERSIDE CHUB](#)

[GILA COPEI](#)

Boulder Loop

Threatened species:

None

Endangered species:

[BONYTAIL](#)

[COLORADO PIKEMINNOW](#)

[RAZORBACK SUCKER](#)

[GILA ELEGANS](#)

[PTYCHOCEILUS LUCIUS](#)

[XYRAUCHEN TEXANUS](#)

Conservation agreement species:

[COLORADO RIVER CUTTHROAT TROUT](#)

[ROUNDTAIL CHUB](#)

[BLUEHEAD SUCKER](#)

[FLANNELMOUTH SUCKER](#)

[ONCORHYNCHUS CLARKII PLEURITICUS](#)

[GILA ROBUSTA](#)

[CATOSTOMUS DISCOBOLUS](#)

[CATOSTOMUS LATIPINNIS](#)

Species of concern:

[LEATHERSIDE CHUB](#)

[GILA COPEI](#)

Under the Rim

Threatened species:

None

Endangered species:

None

Conservation agreement species:

[BLUEHEAD SUCKER](#)

[CATOSTOMUS DISCOBOLUS](#)

[FLANNELMOUTH SUCKER](#)

[CATOSTOMUS LATIPINNIS](#)

Species of concern:

[LEATHERSIDE CHUB](#)

[GILA COPEI](#)

Mollusks

Few sensitive mollusks are present in the MPNHA. Since mollusk habitat is limited to wet environments and most of the water bodies that support them are controlled by the State or Federal government, it is unlikely that the MPNHA will undertake projects that affect their habitat. As with fish, any river restoration project that might be undertaken that involves dredging should carefully consider the possible presence of the applicable sensitive mollusk.

Little Denmark

Threatened species:

None

Endangered species:

None

Species of concern:

[NINEMILE PYRG](#)

[PYRGULOPSIS NONARIA](#)

[SOUTHERN BONNEVILLE PYRG](#)

[PYRGULOPSIS TRANSVERSA](#)

Sevier Valley

Threatened species:

Endangered species:

Species of concern:

[SMOOTH GLENWOOD PYRG](#)

[PYRGULOPSIS CHAMBERLINI](#)

[OTTER CREEK PYRG](#)

[PYRGULOPSIS FUSCA](#)

[CARINATE GLENWOOD PYRG](#)

[PYRGULOPSIS INOPINATA](#)

Headwaters

Threatened species:

None

Endangered species:

None

Species of concern:

[UTAH PHYSA](#)

[OTTER CREEK PYRG](#)

[BLACK CANYON PYRG](#)

[PHYSELLA UTAHENSIS](#)

[PYRGULOPSIS FUSCA](#)

[PYRGULOPSIS PLICATA](#)

Boulder Loop

Threatened species:

None

Endangered species:

None

Species of concern:

None

Under the Rim

Threatened species:

None

Endangered species:

[KANAB AMBERSNAIL](#)

[OXYLOMA KANABENSE](#)

Species of concern:

None

Land Use

The MPNHA contains approximately 75% federal or state owned land. Very little private land is available within the MPNHA, with the majority of it being located in the northern section of Little Denmark. This makes the public agencies, particularly the Bureau of Land Management (BLM), critical to the use of land within the MPNHA. The BLM maintains grazing and mineral extraction leases throughout the MPNHA as well as recreation areas. The pattern of land use on the privately held lands remains unchanged from the early establishment of the cities and town of the MPNHA. The towns were established on a grid pattern with a main street and central to each town are the major public buildings that housed the Mormon community government, storehouses and other functions. Today those patterns of development are still strongly present in the communities of the MPNHA.

Little Denmark

This heritage district has perhaps the largest amount of privately owned land, however private land is less than approximately 42% of the land in the area. Sanpete County which encompasses the Little Denmark heritage district is 1,597 sq. mi. The county contains a number of small communities including Axtell, Centerfield, Chester, Christianburg, Clarion (ghost town), Dover (ghost town), Ephraim, Fairview, Fayette, Fountain Green, Freedom, Gunnison, Indianola, Jerusalem, Manti (county seat), Mayfield, Milburn, Moroni, Mt. Pleasant, Oak Creek, Spearmint, Spring City, Sterling, Wales, and West Ephraim. By necessity the focus within the MP is on those cities and towns located on Highway 89. These tend to be larger communities and contain a higher number of significant heritage assets, with Manti's Mormon Temple providing that community with tremendous importance to the Mormon pioneers and today's practicing Mormons and visitors alike. The majority of this heritage district is engaged in government activities, with most communities providing support to those government functions. The area is experiencing slow growth (2000-2005) and nominal annual construction which allows for the land use pattern to remain relatively unchanged.

Sevier Valley

The Sevier Valley heritage district is contained entirely within the 1,976 sq. mi. of Sevier County. The land in this area is mostly in public ownership with only small sections under private control. Sevier Valley has a number of small communities including Annabella, Aurora, Austin, Burrville, Central, Cove, Elsinore, Fremont Junction, Glenwood, Gooseberry (ghost town), Gramse, Jensen, Joseph, Kema, Koosharem, Monroe, Nibley, Prattsville, Redmond, Richfield (county seat), Salina, Sevier, Sigurd, Venice, Vermillion, and Whipup. The Sevier Valley has no particularly dominant industry. Land Uses vary from grazing to mining to retail and support services can government activities. The area is experiencing slow growth (2000-2005) and traditional land use patterns remain unchanged.

Headwaters

The Headwaters heritage district (5,912 sq. mi.) is encompassed by Piute (754 sq. mi.) and Garfield (5,158 sq. mi.) counties. The communities that comprise the Headwaters heritage district include (Piute County) Alunite (ghost town), Angle, Circleville, Greenwich, Junction (county seat), Kimberley (ghost town), Kingston, Marysville, Thompsonville, (Garfield County) Antimony, Asay (ghost town), Bone Valley, Boulder, Bryce, Butlerville, Canonville, Castle, Clifton (ghost town), Egg Nog, Escalante, Georgetown (ghost town), Hatch, Henrieville, Hillsdale (ghost town), Osiris (ghost town), Panguitch (county seat), Ruby's Inn, Spry, Three Forks, Ticaboo, Tropic, and Widtsoe (ghost town). Piute County, the northern section of the Headwaters district, is predominately engaged in farming. This county has experienced a loss in population

(2000-2005) which can endanger traditional land use practices through vacant structures and abandoned properties. Sevier County, which comprises the majority of the Sevier Valley district is engaged in government activities, with most communities providing support to those government functions. The area is also experiencing a population loss (2000-2005) which can endanger traditional land use practices through vacant structures and abandoned properties.

Boulder Loop

The Boulder Loop heritage district is located within the 2,486 sq. mi. of Wayne County. With little private land, much of this district is unsettled federal or state controlled land. The sparse communities of Aldridge(ghost town), Bicknell, Caineville (ghost town), Eagle City (ghost town), Fremont, Fruita (ghost town), Giles (ghost town), Grover, Hanksville, Loa (county seat), Lyman, Notom (ghost town), Teasdale, and Torrey cover the few areas of privately owned land in this vast area. The dominate economic activity is government services and businesses that support these government activities. This are is also experiencing a loss in population (2000-2005) which can endanger traditional land use practices through vacant structures and abandoned properties.

Under the Rim

Under the Rim is the most heavily constrained of the heritage districts despite covering the 3,904 sq. mi. of Kane County. This district is sparsely populated among the towns of Adairville (ghost town), Bac-Bone, Big Water, Bullfrog, Clarkdale (ghost town), Duck Creek, Factory Farm, Fort Meek, Fort Wahweap, Glendale, Johnson(ghost town), Kanab, Long Valley Junction, Mount Carmel, Orderville, Paria(ghost town), Shirts Fort, Skutumpah (ghost town), Upper Kanab (ghost town), and Whitehouse (ghost town). This area is mostly engaged in providing services to visitors and tourists that come to the area for the wide array of National Parks, Monuments, and Forests. By its very nature, service industries such as these are subject to booms and busts in economic cycles and the pattern of land use changes rapidly when compared to the other heritage districts within the MPNHA. Despite the slow growth (2000-2005) in the area, traditional land use practices are only present with concerted effort to preserve those uses.

Recreation

The MPNHA offers tremendous outdoor recreational opportunities through its State Parks and National Parks, Monuments, and Forests in addition to local municipal and county parks.

Little Denmark

Little Denmark offers tremendous outdoor recreational opportunities which includes access to the Manti-La Sal National Forest. Camping, fishing, boating, horseback riding, mountain biking, snowmobiling, cross country skiing, ice skating, sledding, tennis, swimming, and golfing are available.

Boating

Boating is available on lakes and streams and is generally non-motorized, mostly consisting of canoes and kayaks.

Trails

Trails are provided throughout the State Parks and National Forests and include hiking, mountain biking, snowmobile, ATV, and cross country skiing trails.

Parks

State parks include Scofield, Palisade, and Yuba. In addition there are small park areas maintained in the communities either by the municipality or jointly with the school districts.

Sevier Valley

Sevier Valley offers many outdoor recreation opportunities including access to Fishlake National Forest. Recreational activities include camping, fishing, boating, horseback riding, hunting, mountain biking, snowmobiling, cross country skiing, ice skating, sledding, tennis, and swimming.

Boating

Boating is available on lakes and streams and is generally non-motorized, mostly consisting of canoes and kayaks and includes white water rafting on the Sevier River.

Trails

Trails are provided throughout the State Parks and National Forests and include hiking, mountain biking, snowmobile, ATV, and cross country skiing trails.

Parks

Utah's Fremont Indian State Park is within this district and offers excellent examples of early Indian civilization in this area of Utah.

Headwaters

The Headwaters heritage district has access both the Fishlake and Dixie National Forests and offers camping, fishing, boating, horseback riding, hunting, mountain biking, tennis, and swimming.

Boating

Boating is available on lakes and streams and is generally non-motorized, mostly consisting of canoes and kayaks.

Trails

Trails are provided throughout the State Parks and National Forests and include hiking, mountain biking, and ATV trails.

Parks

State Parks in the Headwaters district include Escalante, Anasazi, Otter Creek, and Piute and also includes Capital Reef and Bryce Canyon National Parks, Cedar Breaks National Monument, and Glen Canyon National Recreation Area.

Boulder Loop

Dixie and Fishlake National Forests are accessible in this district and include camping, fishing, boating, horseback riding, hunting, mountain biking, snowmobiling, cross country skiing, ice skating, sledding, tennis, and swimming opportunities.

Boating

Boating is available on lakes and streams and is generally non-motorized, mostly consisting of canoes and kayaks.

Trails

Trails are provided throughout the State Parks and National Forests and include hiking, mountain biking, snowmobile, ATV, and cross country skiing trails.

Parks

Goblin Valley, Canyon Lands National Park, Capital Reef National Park, Canyon Lands National Park

Under the Rim

This heritage districts includes access to the Dixie National Forest and includes many outdoor recreation activities including camping, fishing, boating, horseback riding, hunting, mountain biking, tennis, and swimming.

Boating

Boating is available on lakes and streams and is generally non-motorized, mostly consisting of canoes and kayaks.

Trails

Trails are provided throughout the State Parks and National Forests and include hiking, mountain biking, snowmobile, ATV, and cross country skiing trails.

Parks

State Parks in this district include Kodachrome and Coral Pink Sand Dunes, and access is also available to the Glen Canyon National Recreation Area and Bryce Canyon National Park.

Socio-Economic Considerations

In general the MPNHA is an area of Utah that saw moderate population growth from 1990 to 2000, with the exception of Little Denmark which experienced rapid growth. However from 2000 to 2005 growth in Little Denmark slowed significantly to a slow growth pattern, joining Sevier Valley and Under the Rim. Headwaters and Boulder Loop were the hardest hit and suffered a loss in population.

Racially the State of Utah is almost homogeneous with a population that is over 93% Caucasian. However from 1990 to 2000 both Little Denmark and the Headwaters districts had a marked growth in Hispanic population, with the number of Hispanics in those two districts nearly doubling from 1990 to 2000.

The MPNHA also saw, with the exception of the Headwaters district, an increase in retirees relocating into their communities. From 1990 to 2000 the population of persons over the age of 60 increased by 15 percent or more. This makes the MPNHA, with the exception of the Headwaters district, a destination for retirees.

Poverty is a concern within the MPNHA. All of the heritage districts but Under the Rim had 10% to 15% of the population living in poverty as of 2003 and less than 10% of the population in the Under the Rim district lived in poverty. However none of these districts were considered to be persistently impoverished.

Access to medical care is a concern throughout the MPNHA, with Little Denmark, Boulder Loop, Under the Rim, and Piute County in the Headwaters district qualifying as a medically underserved area and Sevier Valley and Garfield County in the Headwaters district qualifying as medically underserved populations. Healthcare professionals are in shortage for the total populations in Sevier Valley and Piute County in the Headwaters District and there is a shortage of healthcare professional for low income populations in the remainder of the MPNHA.

As of 2004 only Little Denmark and Sevier Valley had per capita incomes of less than \$20,000 a year while the remaining heritage districts had per capita incomes of \$20,000 to \$30,000 a year.

Unemployment as of 2005 was kept to 4% - 5% for Sevier Valley, Piute County in the Headwaters district and Under the Rim, and Little Denmark and Boulder Loop had unemployment rates of 5%-6% while Garfield County in the Headwaters district experienced unemployment in excess of 7%.

Although not predominately agriculturally based economies, Little Denmark and Sevier Valley produced agricultural products in 2002 in the range of \$50 million - \$100 million, and Boulder loop produced agricultural products in the range of \$10 million to \$50 million. The value of the 2002 crops in the remaining districts was valued at less than \$10 million, including the agriculturally dependent county of Piute.

Self employment in a non-farm related industry is generally an indication of entrepreneurial activity. Within the MPNHA 20% or more of the population in the Boulder Loop and Piute County of the Headwaters district were self employed in a non-farm industry while Little Denmark and Under the Rim had 15% to 20% of the population self employed and the remaining area had only 10% to 15% of their population involved in entrepreneurial activities. In MPNHA this is an important indicator of the existing capacity for heritage product business creation. In some districts it may be necessary to provide

self employment capacity building and training to assist with the development of heritage products.

Little Denmark

Quick Facts Table for Sanpete County from the US Census Bureau

People QuickFacts	Sanpete County	Utah	
Population, 2006 estimate	24,196	2,550,063	
Population, percent change, April 1, 2000 to July 1, 2006	6.3%	14.2%	
Population, 2000	22,763	2,233,169	
Persons under 5 years old, percent, 2006	7.8%	9.7%	
Persons under 18 years old, percent, 2006	29.2%	31.0%	
Persons 65 years old and over, percent, 2006	11.2%	8.8%	
Female persons, percent, 2006	48.1%	49.7%	
White persons, percent, 2006 (a)	95.8%	93.5%	
Black persons, percent, 2006 (a)	0.4%	1.0%	
American Indian and Alaska Native persons, percent, 2006 (a)	1.1%	1.3%	
Asian persons, percent, 2006 (a)	1.1%	2.0%	
Native Hawaiian and Other Pacific Islander, percent, 2006 (a)	0.6%	0.8%	
Persons reporting two or more races, percent, 2006	1.0%	1.5%	
Persons of Hispanic or Latino origin, percent, 2006 (b)	7.9%	11.2%	
White persons not Hispanic, percent, 2006	88.5%	82.9%	
Living in same house in 1995 and 2000, pct 5 yrs old & over	51.1%	49.3%	
Foreign born persons, percent, 2000	4.8%	7.1%	
Language other than English spoken at home, pct age 5+, 2000	9.2%	12.5%	
High school graduates, percent of persons age 25+, 2000	84.6%	87.7%	
Bachelor's degree or higher, pct of persons age 25+, 2000	17.3%	26.1%	
Persons with a disability, age 5+, 2000	3,332	298,686	
Mean travel time to work (minutes), workers age 16+, 2000		22.4	21.3
Housing units, 2006	8,529	901,283	
Homeownership rate, 2000	78.8%	71.5%	
Housing units in multi-unit structures, percent, 2000	7.4%	22.0%	
Median value of owner-occupied housing units, 2000	\$104,800	\$146,100	
Households, 2000	6,547	701,281	
Persons per household, 2000		3.27	3.13
Median household income, 2004	\$35,232	\$47,224	
Per capita money income, 1999	\$12,442	\$18,185	

Persons below poverty, percent, 2004	13.8%		10.3%
Business QuickFacts	Sanpete County		Utah
Private nonfarm establishments, 2005		404	65,549
Private nonfarm employment, 2005	4,235		974,686
Private nonfarm employment, percent change 2000-2005	12.0%		6.3%
Nonemployer establishments, 2005	1,520		175,121
Total number of firms, 2002	1,654		193,003
Black-owned firms, percent, 2002	F		0.3%
American Indian and Alaska Native owned firms, percent, 2002	F		0.6%
Asian-owned firms, percent, 2002	F		1.5%
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F		0.2%
Hispanic-owned firms, percent, 2002	F		2.7%
Women-owned firms, percent, 2002	23.4%		25.1%
Manufacturers shipments, 2002 (\$1000)	103,996		25,104,045
Wholesale trade sales, 2002 (\$1000)	D		22,905,100
Retail sales, 2002 (\$1000)	127,948		23,675,432
Retail sales per capita, 2002	\$5,476		\$10,206
Accommodation and foodservices sales, 2002 (\$1000)	8,428		2,984,632
Building permits, 2006		81	25,873
Federal spending, 2004 (\$1000)	93,351		13,683,623
Geography QuickFacts	Sanpete County		Utah
Land area, 2000 (square miles)	1,588.11		82,143.65
Persons per square mile, 2000		14.3	27.2
FIPS Code		39	49
Metropolitan or Micropolitan Statistical Area	None		

(a) Includes persons reporting only one race.
(b) Hispanics may be of any race, so also are included in applicable race categories.
FN: Footnote on this item for this area in place of data
NA: Not available
D: Suppressed to avoid disclosure of confidential information
X: Not applicable
S: Suppressed; does not meet publication standards
Z: Value greater than zero but less than half unit of measure shown
F: Fewer than 100 firms
Source: US Census Bureau State & County QuickFacts

Sevier Valley

Quick Facts Table for Sevier County from the US Census Bureau

People QuickFacts	Sevier County	Utah	
Population, 2006 estimate	19,640	2,550,063	
Population, percent change, April 1, 2000 to July 1, 2006	4.2%	14.2%	
Population, 2000	18,842	2,233,169	
Persons under 5 years old, percent, 2006	8.3%	9.7%	
Persons under 18 years old, percent, 2006	31.1%	31.0%	
Persons 65 years old and over, percent, 2006	13.1%	8.8%	
Female persons, percent, 2006	49.6%	49.7%	
White persons, percent, 2006 (a)	96.5%	93.5%	
Black persons, percent, 2006 (a)	0.3%	1.0%	
American Indian and Alaska Native persons, percent, 2006 (a)	2.0%	1.3%	
Asian persons, percent, 2006 (a)	0.3%	2.0%	
Native Hawaiian and Other Pacific Islander, percent, 2006 (a)	0.1%	0.8%	
Persons reporting two or more races, percent, 2006	0.9%	1.5%	
Persons of Hispanic or Latino origin, percent, 2006 (b)	3.1%	11.2%	
White persons not Hispanic, percent, 2006	93.7%	82.9%	
Living in same house in 1995 and 2000, pct 5 yrs old & over	58.8%	49.3%	
Foreign born persons, percent, 2000	1.3%	7.1%	
Language other than English spoken at home, pct age 5+, 2000	4.5%	12.5%	
High school graduates, percent of persons age 25+, 2000	85.8%	87.7%	
Bachelor's degree or higher, pct of persons age 25+, 2000	15.2%	26.1%	
Persons with a disability, age 5+, 2000	2,860	298,686	
Mean travel time to work (minutes), workers age 16+, 2000		17.6	21.3
Housing units, 2006	7,605	901,283	
Homeownership rate, 2000	82.0%	71.5%	
Housing units in multi-unit structures, percent, 2000	6.1%	22.0%	
Median value of owner-occupied housing units, 2000	\$95,700	\$146,100	
Households, 2000	6,081	701,281	
Persons per household, 2000		3.03	3.13
Median household income, 2004	\$39,160	\$47,224	
Per capita money income, 1999	\$14,180	\$18,185	
Persons below poverty, percent, 2004	12.4%	10.3%	

Business QuickFacts

Sevier County

Utah

Private nonfarm establishments, 2005		506	65,549	
Private nonfarm employment, 2005	5,588		974,686	
Private nonfarm employment, percent change 2000-2005	7.9%		6.3%	
Nonemployer establishments, 2005	1,254		175,121	
Total number of firms, 2002	1,558		193,003	
Black-owned firms, percent, 2002	F		0.3%	
American Indian and Alaska Native owned firms, percent, 2002	F		0.6%	
Asian-owned firms, percent, 2002	F		1.5%	
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F		0.2%	
Hispanic-owned firms, percent, 2002	F		2.7%	
Women-owned firms, percent, 2002	11.6%		25.1%	
Manufacturers shipments, 2002 (\$1000)	NA		25,104,045	
Wholesale trade sales, 2002 (\$1000)	98,580		22,905,100	
Retail sales, 2002 (\$1000)	200,478		23,675,432	
Retail sales per capita, 2002	\$10,486		\$10,206	
Accommodation and foodservices sales, 2002 (\$1000)	20,843		2,984,632	
Building permits, 2006		142	25,873	
Federal spending, 2004 (\$1000)	99,063		13,683,623	
Geography QuickFacts	Sevier County		Utah	
Land area, 2000 (square miles)	1,910.25		82,143.65	
Persons per square mile, 2000		9.9		27.2
FIPS Code		41		49
Metropolitan or Micropolitan Statistical Area	None			

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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F: Fewer than 100 firms

Source: US Census Bureau State & County QuickFacts

Headwaters

Quick Facts Table for Piute County from the US Census Bureau

People QuickFacts	Piute County	Utah	
Population, 2006 estimate	1,347	2,550,063	
Population, percent change, April 1, 2000 to July 1, 2006	-6.1%	14.2%	
Population, 2000	1,435	2,233,169	
Persons under 5 years old, percent, 2006	7.1%	9.7%	
Persons under 18 years old, percent, 2006	27.4%	31.0%	
Persons 65 years old and over, percent, 2006	20.3%	8.8%	
Female persons, percent, 2006	47.7%	49.7%	
White persons, percent, 2006 (a)	97.7%	93.5%	
Black persons, percent, 2006 (a)	0.2%	1.0%	
American Indian and Alaska Native persons, percent, 2006 (a)	1.0%	1.3%	
Asian persons, percent, 2006 (a)	0.1%	2.0%	
Native Hawaiian and Other Pacific Islander, percent, 2006 (a)	0.1%	0.8%	
Persons reporting two or more races, percent, 2006	0.9%	1.5%	
Persons of Hispanic or Latino origin, percent, 2006 (b)	7.1%	11.2%	
White persons not Hispanic, percent, 2006	90.9%	82.9%	
Living in same house in 1995 and 2000, pct 5 yrs old & over	66.9%	49.3%	
Foreign born persons, percent, 2000	2.0%	7.1%	
Language other than English spoken at home, pct age 5+, 2000	4.9%	12.5%	
High school graduates, percent of persons age 25+, 2000	85.7%	87.7%	
Bachelor's degree or higher, pct of persons age 25+, 2000	14.4%	26.1%	
Persons with a disability, age 5+, 2000		269	298,686
Mean travel time to work (minutes), workers age 16+, 2000		26.3	21.3
Housing units, 2006		790	901,283
Homeownership rate, 2000	87.0%		71.5%
Housing units in multi-unit structures, percent, 2000	0.3%		22.0%
Median value of owner-occupied housing units, 2000	\$80,900		\$146,100
Households, 2000		509	701,281
Persons per household, 2000		2.79	3.13
Median household income, 2004	\$32,225		\$47,224
Per capita money income, 1999	\$12,697		\$18,185
Persons below poverty, percent, 2004	13.9%		10.3%
Business QuickFacts	Piute County	Utah	

Private nonfarm establishments, 2005		26	65,549	
Private nonfarm employment, 2005		143	974,686	
Private nonfarm employment, percent change 2000-2005	53.8%		6.3%	
Nonemployer establishments, 2005		100	175,121	
Total number of firms, 2002		107	193,003	
Black-owned firms, percent, 2002	F		0.3%	
American Indian and Alaska Native owned firms, percent, 2002	F		0.6%	
Asian-owned firms, percent, 2002	F		1.5%	
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F		0.2%	
Hispanic-owned firms, percent, 2002	F		2.7%	
Women-owned firms, percent, 2002	F		25.1%	
Manufacturers shipments, 2002 (\$1000)	NA		25,104,045	
Wholesale trade sales, 2002 (\$1000)	NA		22,905,100	
Retail sales, 2002 (\$1000)	3,300		23,675,432	
Retail sales per capita, 2002	\$2,388		\$10,206	
Accommodation and foodservices sales, 2002 (\$1000)	D		2,984,632	
Building permits, 2006		11	25,873	
Federal spending, 2004 (\$1000)	11,362		13,683,623	
Geography QuickFacts	Piute County		Utah	
Land area, 2000 (square miles)		757.81	82,143.65	
Persons per square mile, 2000		1.9		27.2
FIPS Code		31		49
Metropolitan or Micropolitan Statistical Area	None			

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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F: Fewer than 100 firms

Source: US Census Bureau State & County QuickFacts

Quick Facts Table for Garfield County from the US Census Bureau

People QuickFacts	Garfield County	Utah
Population, 2006 estimate	4,534	2,550,063
Population, percent change, April 1, 2000 to July 1, 2006	-4.2%	14.2%

Population, 2000	4,735	2,233,169	
Persons under 5 years old, percent, 2006	7.8%	9.7%	
Persons under 18 years old, percent, 2006	28.6%	31.0%	
Persons 65 years old and over, percent, 2006	16.4%	8.8%	
Female persons, percent, 2006	48.5%	49.7%	
White persons, percent, 2006 (a)	95.7%	93.5%	
Black persons, percent, 2006 (a)	0.3%	1.0%	
American Indian and Alaska Native persons, percent, 2006 (a)	2.4%	1.3%	
Asian persons, percent, 2006 (a)	0.4%	2.0%	
Native Hawaiian and Other Pacific Islander, percent, 2006 (a)	Z	0.8%	
Persons reporting two or more races, percent, 2006	1.1%	1.5%	
Persons of Hispanic or Latino origin, percent, 2006 (b)	3.6%	11.2%	
White persons not Hispanic, percent, 2006	92.6%	82.9%	
Living in same house in 1995 and 2000, pct 5 yrs old & over	61.7%	49.3%	
Foreign born persons, percent, 2000	0.8%	7.1%	
Language other than English spoken at home, pct age 5+, 2000	3.5%	12.5%	
High school graduates, percent of persons age 25+, 2000	85.8%	87.7%	
Bachelor's degree or higher, pct of persons age 25+, 2000	20.3%	26.1%	
Persons with a disability, age 5+, 2000		630	298,686
Mean travel time to work (minutes), workers age 16+, 2000		13.9	21.3
Housing units, 2006	3,246	901,283	
Homeownership rate, 2000	79.1%	71.5%	
Housing units in multi-unit structures, percent, 2000	1.4%	22.0%	
Median value of owner-occupied housing units, 2000	\$90,500	\$146,100	
Households, 2000	1,576	701,281	
Persons per household, 2000		2.92	3.13
Median household income, 2004	\$37,454	\$47,224	
Per capita money income, 1999	\$13,439	\$18,185	
Persons below poverty, percent, 2004	9.8%	10.3%	
Business QuickFacts	Garfield County	Utah	
Private nonfarm establishments, 2005		158	65,549
Private nonfarm employment, 2005	1,209		974,686
Private nonfarm employment, percent change 2000-2005	13.0%		6.3%
Nonemployer establishments, 2005		370	175,121
Total number of firms, 2002		474	193,003

Black-owned firms, percent, 2002	F	0.3%	
American Indian and Alaska Native owned firms, percent, 2002	F	0.6%	
Asian-owned firms, percent, 2002	F	1.5%	
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F	0.2%	
Hispanic-owned firms, percent, 2002	F	2.7%	
Women-owned firms, percent, 2002	26.2%	25.1%	
Manufacturers shipments, 2002 (\$1000)	NA	25,104,045	
Wholesale trade sales, 2002 (\$1000)	D	22,905,100	
Retail sales, 2002 (\$1000)	16,145	23,675,432	
Retail sales per capita, 2002	\$3,502	\$10,206	
Accommodation and foodservices sales, 2002 (\$1000)	30,863	2,984,632	
Building permits, 2006		84	25,873
Federal spending, 2004 (\$1000)	41,463		13,683,623
Geography QuickFacts	Garfield County	Utah	
Land area, 2000 (square miles)	5,174.22	82,143.65	
Persons per square mile, 2000		0.9	27.2
FIPS Code		17	49
Metropolitan or Micropolitan Statistical Area	None		

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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NA: Not available

D: Suppressed to avoid disclosure of confidential information

X: Not applicable

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Z: Value greater than zero but less than half unit of measure shown

F: Fewer than 100 firms

Source: US Census Bureau State & County QuickFacts

Boulder Loop

Quick Facts Table for Wayne County from the US Census Bureau

People QuickFacts	Wayne County	Utah
Population, 2006 estimate	2,544	2,550,063
Population, percent change, April 1, 2000 to July 1, 2006	1.4%	14.2%
Population, 2000	2,509	2,233,169
Persons under 5 years old, percent, 2006	7.8%	9.7%
Persons under 18 years old, percent, 2006	30.5%	31.0%
Persons 65 years old and over, percent, 2006	15.5%	8.8%
Female persons, percent, 2006	49.0%	49.7%
White persons, percent, 2006 (a)	98.2%	93.5%
Black persons, percent, 2006 (a)	0.2%	1.0%
American Indian and Alaska Native persons, percent, 2006 (a)	0.6%	1.3%
Asian persons, percent, 2006 (a)	0.3%	2.0%
Native Hawaiian and Other Pacific Islander, percent, 2006 (a)	0.2%	0.8%
Persons reporting two or more races, percent, 2006	0.6%	1.5%
Persons of Hispanic or Latino origin, percent, 2006 (b)	2.8%	11.2%
White persons not Hispanic, percent, 2006	95.6%	82.9%
Living in same house in 1995 and 2000, pct 5 yrs old & over	62.7%	49.3%
Foreign born persons, percent, 2000	1.7%	7.1%
Language other than English spoken at home, pct age 5+, 2000	3.2%	12.5%
High school graduates, percent of persons age 25+, 2000	88.5%	87.7%
Bachelor's degree or higher, pct of persons age 25+, 2000	20.9%	26.1%
Persons with a disability, age 5+, 2000	385	298,686
Mean travel time to work (minutes), workers age 16+, 2000	19.5	21.3
Housing units, 2006	1,424	901,283
Homeownership rate, 2000	77.8%	71.5%
Housing units in multi-unit structures, percent, 2000	4.2%	22.0%
Median value of owner-occupied housing units, 2000	\$97,600	\$146,100
Households, 2000	890	701,281
Persons per household, 2000	2.81	3.13
Median household income, 2004	\$34,129	\$47,224
Per capita money income, 1999	\$15,392	\$18,185
Persons below poverty, percent, 2004	11.1%	10.3%

Business QuickFacts

Wayne County

Utah

Private nonfarm establishments, 2005		82	65,549	
Private nonfarm employment, 2005		666	974,686	
Private nonfarm employment, percent change 2000-2005	44.5%		6.3%	
Nonemployer establishments, 2005		226	175,121	
Total number of firms, 2002		282	193,003	
Black-owned firms, percent, 2002	F		0.3%	
American Indian and Alaska Native owned firms, percent, 2002	F		0.6%	
Asian-owned firms, percent, 2002	F		1.5%	
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F		0.2%	
Hispanic-owned firms, percent, 2002	F		2.7%	
Women-owned firms, percent, 2002	F		25.1%	
Manufacturers shipments, 2002 (\$1000)	NA		25,104,045	
Wholesale trade sales, 2002 (\$1000)	D		22,905,100	
Retail sales, 2002 (\$1000)	18,106		23,675,432	
Retail sales per capita, 2002	\$7,123		\$10,206	
Accommodation and foodservices sales, 2002 (\$1000)	5,791		2,984,632	
Building permits, 2006		27	25,873	
Federal spending, 2004 (\$1000)	15,420		13,683,623	
Geography QuickFacts	Wayne County		Utah	
Land area, 2000 (square miles)	2,460.32		82,143.65	
Persons per square mile, 2000		1		27.2
FIPS Code		55		49
Metropolitan or Micropolitan Statistical Area	None			

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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F: Fewer than 100 firms

Source: US Census Bureau State & County QuickFacts

Under the Rim

Quick Facts Table for Kane County from the US Census Bureau

People QuickFacts	Kane County	Utah	
Population, 2006 estimate	6,532	2,550,063	
Population, percent change, April 1, 2000 to July 1, 2006	8.0%	14.2%	
Population, 2000	6,046	2,233,169	
Persons under 5 years old, percent, 2006	7.2%	9.7%	
Persons under 18 years old, percent, 2006	25.4%	31.0%	
Persons 65 years old and over, percent, 2006	17.0%	8.8%	
Female persons, percent, 2006	49.7%	49.7%	
White persons, percent, 2006 (a)	96.8%	93.5%	
Black persons, percent, 2006 (a)	Z	1.0%	
American Indian and Alaska Native persons, percent, 2006 (a)	1.8%	1.3%	
Asian persons, percent, 2006 (a)	0.2%	2.0%	
Native Hawaiian and Other Pacific Islander, percent, 2006 (a)	Z	0.8%	
Persons reporting two or more races, percent, 2006	1.1%	1.5%	
Persons of Hispanic or Latino origin, percent, 2006 (b)	2.9%	11.2%	
White persons not Hispanic, percent, 2006	94.2%	82.9%	
Living in same house in 1995 and 2000, pct 5 yrs old & over	57.4%	49.3%	
Foreign born persons, percent, 2000	2.9%	7.1%	
Language other than English spoken at home, pct age 5+, 2000	6.1%	12.5%	
High school graduates, percent of persons age 25+, 2000	86.4%	87.7%	
Bachelor's degree or higher, pct of persons age 25+, 2000	21.1%	26.1%	
Persons with a disability, age 5+, 2000		954	298,686
Mean travel time to work (minutes), workers age 16+, 2000		18.9	21.3
Housing units, 2006	4,648	901,283	
Homeownership rate, 2000	77.9%	71.5%	
Housing units in multi-unit structures, percent, 2000	3.2%	22.0%	
Median value of owner-occupied housing units, 2000	\$103,900	\$146,100	
Households, 2000	2,237	701,281	
Persons per household, 2000		2.67	3.13
Median household income, 2004	\$37,613	\$47,224	
Per capita money income, 1999	\$15,455	\$18,185	
Persons below poverty, percent, 2004	9.3%	10.3%	
Business QuickFacts	Kane County	Utah	

Private nonfarm establishments, 2005		240	65,549	
Private nonfarm employment, 2005	1,837		974,686	
Private nonfarm employment, percent change 2000-2005	28.6%		6.3%	
Nonemployer establishments, 2005		618	175,121	
Total number of firms, 2002		699	193,003	
Black-owned firms, percent, 2002	F		0.3%	
American Indian and Alaska Native owned firms, percent, 2002	F		0.6%	
Asian-owned firms, percent, 2002	F		1.5%	
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F		0.2%	
Hispanic-owned firms, percent, 2002	F		2.7%	
Women-owned firms, percent, 2002	15.6%		25.1%	
Manufacturers shipments, 2002 (\$1000)	NA		25,104,045	
Wholesale trade sales, 2002 (\$1000)	4,822		22,905,100	
Retail sales, 2002 (\$1000)	35,812		23,675,432	
Retail sales per capita, 2002	\$5,931		\$10,206	
Accommodation and foodservices sales, 2002 (\$1000)	17,839		2,984,632	
Building permits, 2006		213	25,873	
Federal spending, 2004 (\$1000)	38,162		13,683,623	
Geography QuickFacts	Kane County		Utah	
Land area, 2000 (square miles)	3,991.96		82,143.65	
Persons per square mile, 2000		1.5		27.2
FIPS Code		25		49
Metropolitan or Micropolitan Statistical Area	None			

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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Source: US Census Bureau State & County QuickFacts

Cultural Resources

Archeological Resources

The MPNHA has tremendous cultural resources that remain intact from the period of Mormon settlement and whole towns are listed on the National Register of Historic Places. Although many of the communities are traditionally poor, that poverty combined with the pioneer spirit of perseverance and practicality has led to de-facto preservation. Although most of the Native American Tribes have been relocated, with the exception of some very small Paiute Indian Reservations in Sevier Valley, there are some remnants of the influence the tribes on the shaping of the area. It is important to note that there are many archeological resources throughout the MPNHA and many archeological reports have been done, but almost all of the known archeological resources are located on State or Federal Land and are in public stewardship. While the lack of known archeological resources on private lands does not relieve a project from considering the possible adverse affect it may have on such resources, the likelihood of encountering archeological resources on private land is very remote. The less sensitive of these archeological sites are included in the listing of Historic Structures and Districts.

Historic Industrial Resources

The MPNHA has a shared history throughout the districts of relying on mining, predominately for coal but including silver and gold, timber, and grazing as its industrial resources. Today most of these resources are under control of the federal government and continue on a permit or lease basis with the Bureau of Land Management. The SUFCO mine in Salina continues to be a major resource in addition to the BLM grazing and mineral rights.

Transportation Resources

Two major transportation methods have had a major impact on the MPNHA – the railroad and the automobile.

The Railroad

With the discovery of coal, precious metals, and add to that the high value timber throughout the MPNHA the Denver-Santa Fe Railway made inroads into the MPNHA. This had major impact on the areas economies and many of the ghost towns in the MPNHA were subject to the boom and bust cycles of mining. Today the railroad is no longer active but its railways may be available for conversion to trails.

State and National Scenic and Historic Byways

National: These run throughout the MPNHA and include the “Energy Loop” running from Huntington to Eccles Canyon on State Route 31 (Huntington to Fairview), State Route 264, and State Route 96 (from Fairview to Colton); the “Nebo Loop” running the length of State Route 132; and Scenic Byway 12 from its junction with US 89 to Torrey

State: These include Fishlake Scenic Byway (SR 25 between SR 24 and SR 72); Beaver Canyon Scenic Byway (SR 153 from Beaver to Elk Meadows); Capitol Reef Scenic Byway (SR 24 from Loa to Hanksville); Cedar Breaks Scenic Byway (SR 148 between SR14 and SR 143); Markagunt Scenic Byway (SR 14 from Cedar City to its junction with US 89); Mt. Carmel Scenic Byway (US 89 from Kanab to its junction with SR 12); Patchwork Parkway (SR 143 from Parowan to Panguitch); Kolob Finger Canyons Road Scenic Byway (junctions with I-15, 18 miles south of Cedar City); and Zion Park Scenic Byway (SR 9 from I-15 to junction at Mt. Carmel).

Airports

The MPNHA is served by several airports although none receive commercial service but they can accommodate most private or charter planes. The airports include the Bryce Canyon Airport in Bryce Canyon, Mt. Pleasant Airport in Mt. Pleasant, Manti-Ephraim

Airport in Ephraim, and the Kanab City Airport in Kanab. During the era of the great western movie, many scenes and even entire films were shot in the Kanab area and the airport in Kanab helped support the needs of the film industry at that time.

Little Denmark

Cultural Institutions

The cultural institutions in Little Denmark include the Fairview Museum of History and Art, Fountain Green Social Hall, Heritage Village in Mt. Pleasant, Manti Temple, Moroni Opera House, Old Pioneer Museum in Mt. Pleasant, Central Utah Arts Center in Ephraim, Images of Grace in Mt. Pleasant, Relic House in Mt. Pleasant, Traditional Building Skills Institute in Ephraim, Casino Star Theatre in Gunnison, and the Wasatch Academy.

Historic Structures & Districts

Centerfield

Centerfield School and Meetinghouse
140 S. Main St.
Centerfield
Mormon Church Buildings in Utah MPS

Ephraim

Andersen, Claus P., House
2nd South St.
Ephraim
Scandinavian-American Pair-houses TR

Andersen, Lars S., House
213 N. 200 East
Ephraim
Scandinavian-American Pair-houses TR

Anderson, Niels Ole, House
306 S. 100 East
Ephraim

Dorius, John, Jr., House
46 W. 100 North
Ephraim

Ephraim Carnegie Library
30 S. Main St.
Ephraim
Carnegie Library TR

Ephraim United Order Cooperative Building
Main and 1st North Sts.
Ephraim

Greaves-Deakin House
118 S. Main St.
Ephraim

Hansen, Hans A., House
75 W. 100 North
Ephraim

Jensen, Hans C., House
263 E. 100 South

Ephraim
Scandinavian-American Pair-houses TR

Jensen, Rasmus, House
97 E. 100 South
Ephraim
Scandinavian-American Pair-houses TR

Johnson-Nielson House
351 N. Main St
Ephraim

Larsen, Oluf, House
75 S. 100 West
Ephraim
Scandinavian-American Pair-houses TR

Larsen-Noyes House
96 E. Center St.
Ephraim

Nielsen, Jens, House
192 W. 200 South
Ephraim
Scandinavian-American Pair-houses TR

Peterson, Canute, House
10 N. Main St.
Ephraim

Snow Academy Building
150 College Ave.
Ephraim

Sorensen, Dykes, House
2nd East St.
Ephraim
Scandinavian-American Pair-houses TR

Sorensen, Fredrick Christian, House
E. Center St.
Ephraim

Fairview

Anderson, James, House
15 S. 200 East
Fairview

Fairview Amusement Hall
75 S. State St.
Fairview

Fairview City Hall
85 S. State
Fairview
Public Works Buildings TR

Fairview Tithing Office/Bishop's Storehouse
60 W. 100 South
Fairview
Tithing Offices and Granaries of the Mormon Church TR

Hjort, Niels P., House
N. Main St.
Fairview

Fountain Green

Barentsen, Andrew, House
UT 30
Fountain Green
Scandinavian-American Pair-houses TR

Fountain Green Hydroelectric Plant Historic District
NW of Fountain Green
Fountain Green
Electric Power Plants of Utah MPS

Olsen, Hans Peter, House
UT 11
Fountain Green

Gunnison

Casino Theatre
78 S. Main St.
Gunnison

Metcalf, James and Caroline M., House
290 E 500 S
Gunnison

Oberg--Metcalf House
12 N 100 E
Gunnison

Manti

Anderson, Lewis and Clara, House
542 S. Main
Manti

Bessey, Anthony W., House
Off U.S. 89
Manti

Billings-Hougaard House
Off U.S. 89
Manti

Cox-Shoemaker-Parry House
50 N. 100 West
Manti

Hansen, Peter, House

247 S. 200 East
Manti
Scandinavian-American Pair-houses TR

Johnson, Robert, House
Off U.S. 89
Manti

Jolley, Francis Marion, House
Off U.S. 89
Manti

Manti Carnegie Library
12 S. Main St.
Manti
Carnegie Library TR

Manti City Hall
191 N. Main
Manti

Manti National Guard Armory
50 E. One Hundred N
Manti
Public Works Buildings TR

Manti Presbyterian Church
U.S. 89
Manti

Manti Temple
N edge of Manti, on U.S. 89
Manti

Nielson, John R., Cabin
Manti Canyon
Manti

Ottesen, Hans, House
202 S. 200 W
Manti
Scandinavian-American Pair-houses TR

Patten, John, House
95 W. 400 North
Manti

Tuttle-Folsom House
195 W. 300 North
Manti

Sanpete County Courthouse
160 N. Main St.
Manti
Public Works Buildings TR

Moroni

Faux, Jabez, House And Barn
UT 132
Moroni

Moroni High School Mechanical Arts Building
350 N. Center St.
Moroni
Public Works Buildings TR

Moroni Opera House
Jct. of UT 132 and W. Main St.
Moroni

Mortensen--Nelson House
291 East 100 South
Moroni

Mount Pleasant

Ariksen, Ole, House
Off UT 116
Mount Pleasant

Jensen, Frederick C., House
2nd West and 2nd South
Mount Pleasant

Mount Pleasant Carnegie Library
24 E. Main St.
Mount Pleasant
Carnegie Library TR

Mount Pleasant Commercial Historic District
U.S. 89 and UT 116
Mount Pleasant

Mount Pleasant High School Mechanical Arts Building
150 N. State St.
Mount Pleasant
Public Works Buildings TR

Mount Pleasant National Guard Armory
10 N. State
Mount Pleasant
Public Works Buildings TR

Nielson, N. S., House
179 W. Main St.
Mount Pleasant

Rasmussen, Morten, House
417 W. Main St.
Mount Pleasant

Seeley, William Stuart, House
150 S. State St.

Mount Pleasant

Seely, John H., House
91 S. 5th West
Mount Pleasant

Staker, Alma, House
81 E. 300 South
Mount Pleasant

Staker, James B., House
U.S. 89
Mount Pleasant

Wasatch Academy
Off U.S. 89
Mount Pleasant

Watkins--Tholman--Larsen Farmstead
422 E. 400 South St.
Mount Pleasant

Wheelock, Cyrus, House
200 E. 100 North
Mount Pleasant

Spring City

Crawforth, Charles, Farmstead
SW of Spring City on Pigeon Hollow Rd.
Spring City

Spring City Historic District
UT 17
Spring City

Spring City School
Off UT 117
Spring City

Springville

US Post Office--Springville Main
309 S. Main
Springville
US Post Offices in Utah MPS

Wales

Lewellyn, John T., House
Main St.
Wales

Wales Co-operative Mercantile Institution
150 N. State St.
Wales

Ethnic Resources

The ethnicity of Little Denmark is evident throughout the district in its architectural vernacular and is preserved in multiple events that are held each year. Those events include the Ephraim Scandinavian Festival, Hub City Days and Soap Box Derby, Lace Making Days, Lamb Days, Mountain Man Rendezvous, Mormon Miracle Pageant, Pioneer Days, Rhubarb Festival and Spring City Heritage Days.

Sevier Valley

Cultural Institutions

The cultural institutions in the Sevier Valley include Fremont State Park Museum.

Historic Structures & Districts

Elsinore

Elsinore Sugar Factory
E of Elsinore
Elsinore

Elsinore White Rock Schoolhouse
25 S. 100 East
Elsinore

Glenwood

Glenwood Cooperative Store
15 W. Center St.
Glenwood

Johnson, Martin, House
45 W. 400 South
Glenwood
Scandinavian-American Pair-houses TR

Wall, Joseph, Gristmill
355 S. 250 East
Glenwood

Joseph

Parker, Joseph William, Farm
2.5 mi. NE of Joseph
Joseph

Monroe

Monroe City Hall
10 N. Main St.
Monroe
Public Works Buildings TR

Monroe Presbyterian Church
20 E. 100 North
Monroe

Simonsen, Soren, House
55 W. 200 North
Monroe
Scandinavian-American Pair-houses TR

Redmond

Redmond Hotel
15 E. Main St.
Redmond

Redmond Town Hall

18 W. Main St.
Redmond

Richfield

Ramsay, Ralph, House
57 E. 2nd North
Richfield

Richfield Carnegie Library
83 E. Center St.
Richfield
Carnegie Library TR

Jenson, Jens Larson, Lime Kiln
2 mi. N of Richfield
Richfield

US Post Office--Richfield Main
93 N. Main
Richfield
US Post Offices in Utah MPS

Young Block
3-17 S. Main St.
Richfield

Salina

Aspen-Cloud Rock Shelters
Address Restricted
Salina

Gooseberry Valley Archeological District
Address Restricted
Salina

Peterson--Burr House
190 W. Main
Salina

Salina Hospital
330 W. Main St.
Salina

Salina Municipal Building and Library
90 W. Main
Salina
Public Works Buildings TR

Salina Presbyterian Church
204 S. 1st East
Salina

Sudden Shelter (42SV6)
Address Restricted
Salina

Sevier

Sevier Ward Church
E of Sevier U.S. 89
Sevier

Ethnic Resources

The strongest available interpretation and preservation of the Native American ethnic influence is present at the Fremont Indian State Park. In addition the San Rafael Trapping Party Mountain Man Rendezvous and Western Heritage event provide ethnic oriented events for the Sevier Valley district.

Headwaters

Cultural Institutions

The cultural institutions in the Headwaters district include the Desert Wolfe Gallery in Escalante, Gallery Escalante in Escalante, Daughters of the Utah Pioneers Museum in Escalante, Daughters of the Pioneers Museum in Panguitch, Anasazi Village Museum in Boulder, and Edison Alvey Museum in Escalante.

Historic Structures & Districts

Boulder

Boulder Elementary School
Off UT 51
Boulder
Public Works Buildings TR

Coombs Village Site
UT 117
Boulder

Bryce Canyon National Park

Administration Building, Old
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Bryce Canyon Airport
SE of Panguitch off UT 12
Panguitch

Bryce Canyon Historic District (Boundary Increase)
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Bryce Canyon Lodge and Deluxe Cabins
SR 63
Bryce Canyon National Park

Bryce Canyon National Park Scenic Trails Historic District
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Bryce Inn
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Horse Barn
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Loop C Comfort Station
N. Campground, Bryce Canyon National Park
Bryce Canyon

Bryce Canyon National Park MPS

Loop D Comfort Station
N. Campground, Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

National Park Service Housing, Old, Historic District
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Rainbow Point Comfort Station and Overlook Shelter
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Riggs Spring Fire Trail
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Under-the-Rim Trail
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Utah Parks Company Service Station
Bryce Canyon National Park
Bryce Canyon
Bryce Canyon National Park MPS

Cannonville

Henderson, Willaim Jasper, Jr., and Elizabeth, House
87 N. Main St. (Kodachrome Hwy)
Cannonville

Canyonlands National Park

Kolb Brothers "Cat Camp" Inscription
Big Drop #2 vicinity
Moab
Canyonlands National Park MRA

Capital Reef National Park

Oak Creek Dam
Oak Creek, N of N. Coleman Canyon
Torrey
Capitol Reef National Park MPS

Escalante

Friendship Cove Pictograph
Address Restricted
Escalante

Hole-in-the-Rock Trail
A trail commencing at Escalante, Utah and terminating at Bluff, Utah

Escalante

Hanksville

Starr Ranch
46 mi. S of Hanksville
Hanksville

Junction

Morrill, John and Ella, House
95 N. Main St.
Junction

Piute County Courthouse
Main St. at Center St.
Junction

Panguitch

Owens Jr., William T. and Mary Isabell R., House
95 N 100 E
Panguitch

Panguitch Carnegie Library
75 E. Center St.
Panguitch
Carnegie Library TR

Panguitch Historic District
Roughly bounded by 500 North, 400 East, 500 South, and 300 West
Panguitch

Panguitch Social Hall
50 E. Center St.
Panguitch

Pole Hollow Archeological Site
Address Restricted
Panguitch

Ethnic Resources

The following ethnic events are provided within the Headwaters district: Hometown Christmas Fair, Marysville Town Reunion, Long Valley Heritage Celebration, Native American Powwow, Panguitch Hometown Christmas Fair, Panguitch Quilt Walk, Panguitch Homecoming Celebration, Duck Creek Days, Kaibab Paiute Heritage Day Powwow, Kanab Highway 89 Days, Southern Utah Bluegrass Festival, and the Wwestern Legends Roundup.

Boulder Loop

Cultural Institutions

Cultural Institutions include the Entrada Institute, The Torrey Gallery, in Torrey, .

Historic Structures & Districts

Bicknell

Nielson, Hans Peter, Gristmill
3 mi. SE of Bicknell
Bicknell

Wayne County High School
55 N. Center St.
Bicknell
Public Works Buildings TR

Fruita

Fruita Schoolhouse
Capitol Reef National Park on UT 24
Fruita

Green River

Cowboy Caves
Address Restricted
Green River

Harvest Scene Pictograph
Address Restricted
Green River

Horseshoe (Barrier) Canyon Pictograph Panels
Address Restricted
Green River

Grover

Grover School
Off UT 117
Grover
Public Works Buildings TR

Hanksville

Bull Creek Archeological District
Address Restricted
Hanksville

Hanksville Meetinghouse—School
Sawmill Basin Rd.
Hanksville
Mormon Church Buildings in Utah MPS

Loa

Loa Tithing Office
100 West and Center St.
Loa
Tithing Offices and Granaries of the Mormon Church TR

Moab

D.C.C. & P. Inscription "B"
Confluence vicinity
Moab
Canyonlands National Park MRA

Teasdale

Teasdale Tithing Granary
Off UT 117
Teasdale
Tithing Offices and Granaries of the Mormon Church TR

Torrey

Behunin, Elijah Cutler, Cabin
UT 24, 1.5 mi. SE of tip of Horse Mesa
Torrey
Capitol Reef National Park MPS

Cathedral Valley Corral
Middle Desert, SE of Confluence of Cathedral Mountain and Cathedral Valley
Torrey
Capitol Reef National Park MPS

Civilian Conservation Corps Powder Magazine
S of Fremont R., N of Cuts Canyon
Torrey
Capitol Reef National Park MPS

Fruita Rural Historic District
Roughly, along UT 24 from Sulphur Cr. to Hickman Natural Bridge
Torrey

Hanks' Dugouts
Confluence of Pleasant Creek and South Draw
Torrey
Capitol Reef National Park MPS

Lee, Charles W. and Leah, House
277 W. 100 North
Torrey

Morrell, Lesley, Line Cabin and Corral
Confluence of Middle Desert Wash and Cathedral Valley
Torrey
Capitol Reef National Park MPS

Oyler Mine
Confluence of Grand Wash and Cohab Canyon
Torrey
Capitol Reef National Park MPS

Pioneer Register
SW of confluence of Capitol Wash and Waterpocket Canyon
Torrey
Capitol Reef National Park MPS

Torrey Log Church—Schoolhouse
Approximately 49 E. Main St.
Torrey
Mormon Church Buildings in Utah MPS

Ethnic Resources

The Boulder Loop heritage district offers the following ethnic events: Bicknell International Film Festival, Bryce Canyon Rodeo, High Country Quilters Show and Big Apple Days, Old-Time Fiddlers and Bear Festival, an Wide Hollow Fishing Derby.

Under the Rim

Cultural Institutions

Cultural Institutions in Under the Rim include the Daughters of the Utah Pioneers Museum in Orderville, Johnson Canyon Art and Gallery in Kanab, Maynard Dixon Home in Mt. Carmel, Denny's Wigwam in Kanab, Frontier Movie Town in Kanab, Heritage House in Kanab, and Center Street Gallery in Kanab.

Historic Structures & Districts

Escalante

Hole-In-The-Rock

SE of Escalante in Glen Canyon National Recreation Area

Escalante

Glen Canyon

Davis Gulch Pictograph Panel

Address Restricted

Glen Canyon

Kanab

Bowman-Chamberlain House

14 E. 100 South

Kanab

Cottonwood Canyon Cliff Dwelling

Address Restricted

Kanab

Johnson, William Derby, Jr., House

54 S. Main St.

Kanab

Kanab, Utah MPS

Kanab (Union Pacific) Lodge

86 S 200 W

Kanab

Kanab, Utah MPS

Kanab Hotel and Café

19 W. Center St.

Kanab

Kanab, Utah MPS

Kanab Library

600 South 100 E.

Kanab

Public Works Buildings TR

Parry Lodge

89 E. Center St.

Kanab

Kanab, Utah MPS

Rider--Pugh House

17 W 100 S

Kanab

Kanab, Utah MPS

Stewart--Woolley House

106 W 100 N

Kanab

Kanab, Utah MPS

Mount Carmel

Dixon, Maynard, and Edith Hamlin House and Studio

UT 89

Mt. Carmel

Mt. Carmel School and Church

Off UT 89

Mt. Carmel

Orderville

Valley School

Off US 89

Orderville

Public Works Buildings TR

Environmental Justice

According to the guidance provided by the Council on Environmental Quality, environmental justice is the fair treatment and substantial involvement of all people in a decision making process regardless of their race, color, national origin, or income. This includes the development, implementation, and enforcement of any laws, regulations, and policies. To provide fair treatment is to ensure that no single group of people, including racial, ethnic, or socioeconomic group, will bear a disproportionate share of any negative environmental consequences as a result of industrial, municipal, or commercial operations or the execution of federal, state, local, or tribal programs and policies.

Environmental Consequences

Methodology for Assessing Impacts

Impacts are assessed in terms of context, duration, and intensity. In this case the analysis of the impacts is broad, looking at the effect on a regional level and to some degree local, and whether those affects are anticipated to be long term or short term and how severe the impact is – negligible, minor, moderate, or major. The following are the definitions used in this analysis regarding duration and intensity:

Short-term:	Lasting one year or less
Long-term:	Lasting longer than one year
Negligible:	Undetectable to the lowest levels of detection
Minor:	Slight but detectable impact
Moderate:	Readily apparent
Major:	The impact may be severe or adverse or exceptionally beneficial

Cumulative Impacts

The Council of Environmental Quality (CEQ) regulations, which oversees the implementation of the National Environmental Policy Act (NEPA), requires the cumulative impacts of federal projects be considered and evaluated during the decisions making process. Cumulative impacts are “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7)

The cumulative impacts of the alternatives are determined by adding the affect of the proposed action to the past, present, and reasonably foreseeable future action(s) within the area of direct affect and extending it the surrounding potential area of effect, if applicable. In this case the area of potential effect is drawn at the boundaries of the Mormon Pioneer National Heritage Area as set in the enabling legislation.

The Mormon Pioneer National Heritage Area (MPNHA) has advanced the Management Plan (MP) to a final draft stage. This Environmental Assessment evaluates the proposed actions, policies and programs presented in the MPNHA MP in combination with the past, present, and reasonably foreseeable future actions in the region to determine the duration and intensity of the potential effects of these actions on the region.

Without the MPNHA and the MP, some of the proposed actions will go forward. However the proposed actions within the MP that are completed without the assistance of the MPNHA and the National Park Service will lack funding or interest to include needed interpretation and enhancement to the final product. If the MP fails to be implemented, the resources identified earlier in this document may be inadequately protected, interpreted, or restored. This would rob future generations of the opportunity to learn first had about and experience these nationally significant resources.

Section 106 of the National Historic Preservation Act and the Impacts to Cultural Resources

Projects are contemplated in the MPNHA MP that will have an impact on properties potentially eligible, eligible, and listed on the National Register of Historic Places. However, none of the proposed projects have been advanced to a point where compliance with Section 106 of the National Historic Preservation Act (Section 106) can

be evaluated. Never the less, this environmental analysis considers the potential effects of the MPNHA MP on cultural resources in a general manner. It is the intent of this Environmental Assessment to evaluate only the plan for compliance with both NEPA and Section 106. Each project and program that is implemented by the MPNHA may require additional NEPA and Section 106 review for compliance. When a project or program is reviewed for Section 106 compliance the following process should be followed:

1. Determine the area of potential effect (APE) for the project under consideration
2. Identify all cultural resources present in the area that are either listed on the National Register of Historic Places (National Register) or eligible or potentially eligible for listing.
3. Evaluate the impacts of the proposed project for any potentially adverse effects to the identified cultural resources with the APE.
4. Consider ways to first avoid, secondly to minimize, and lastly to mitigate any adverse effects that may reasonably occur as a result of the project.

The Advisory Council on Historic Preservation requires that a determination of adverse effect or not adverse effect be made for any potentially affected cultural resources. And adverse effect occurs when the impact of the action alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for listing on the National Register such as diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on cultural properties also includes any reasonably foreseeable adverse effects that may alter the qualities of the resource that are associated through the implementation of the preferred alternative.

CEQ regulations and the National Park Service's *Conservation Planning, Environmental Impact Analysis and Decision-making* (DO-12) call for a discussion of the appropriateness of mitigation and an analysis of how effective any mitigation measure would be in reducing the intensity of a potential adverse impact. Within this document, any discussion of the effectiveness of a mitigation measure in reducing the intensity of an adverse impact is made in regard to the MP and its NEPA compliance requirements. Any mitigation measures suggested in this document are not intended to meet the requirements of mitigation under Section 106. Separate and specific Section 106 compliance will be required for any projects undertaken by the MPNHA that effect cultural resources.

Regulations and Policy

United State Public Law 109-338, 120 Stat. 1783

This Public Law authorized the Mormon Pioneer National Heritage Area (MPNHA) through the Utah Heritage Highway 89 Alliance to develop a Management Plan (MP) for consideration and approval by the Secretary of the Interior prior to receiving appropriations for implementation of projects. This legislation requires the MP to be submitted to the Secretary of the Interior no later than three (3) years after its enactment. The MP is to include the full range of potential projects, policies, and programs that will enhance, interpret, preserve, and conserve the historic, natural, and cultural resources and heritage products of the MPNHA.

This MP will be further enhancement of the existing Utah Heritage Highway 89 effort. The area is vast covering six counties and over 15,880 square miles. This Region is broken into Districts – Little Denmark (Sanpete County), Sevier Valley (Sevier County), Headwaters (Piute and Garfield Counties), Boulder Loop (Wayne County), and Under the Rim (Kane

County). Each of the Districts is further refined into Chapters which are participating communities. Each District has a common theme and each Chapter provide resources to tell the Heritage story.

National Environmental Policy Act (NEPA) of 1969

This law requires federal actions to take into account the effects a federal action may have on the environment and requires that the environment be protected from adverse effects resulting from proposed federal action. To ensure a balance is struck between federal action and the preservation of natural and cultural resources all federal decision making processes are subject to a detailed evaluation of the impacts of the action and an examination of all reasonable alternative actions that may accomplish the goal of said action. NEPA requires that all interested and affected members of the public be involved in the evaluation process before decisions are made. This Environmental Assessment has been prepared under NEPA guidelines to determine if the propose MPNHA MP has the potential for significant impacts. If no significant impacts are projected for the MPHNA, a Finding of No Significant Impact (FONSI) will be prepared.

Section 106 of the National Historic Preservation Act (Section 106) of 1966

Section 106 requires federal agencies with direct or indirect jurisdiction over a federal, federally assisted, or federally licensed undertaking to allow the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that may affect properties that are listed, eligible, or potentially eligible for listing on the National Register of Historic Places prior to the approval of any such action.

National Park Service Director's Order 2 (DO 2): Park Planning (1988)

The DO 2 describes the decision-making process for developing the goals and actions for the National Park system and those units for the National Trails system administered by the National Park Service. While not directly related to a National Park or National Trail, a Heritage Area is a close proximity to such a unit and until a more specific Director's Order is issued for Heritage Areas, this Director's Order applies.

Alternatives

During the planning process two action alternatives were formed along with a no action alternative. These alternatives were evaluated for their ability to fulfill the Mormon Pioneer National Heritage Area goals for interpreting, enhancing, preserving, and conserving the historic, natural, and cultural assets and unique heritage products of central Utah's pioneer history. It was originally contemplated that the analysis would have to be performed separately for each heritage district much like evaluating multiple projects. However the MPNHA has a strong common theme throughout its districts and the actions undertaken in each district are not dissimilar. Therefore the author believes it would be a disservice to evaluate the alternatives in the more narrow and isolated context of the heritage districts. Instead the alternatives should be evaluated across all of the districts as one unified entity, but recognize any adverse impacts for any heritage district as an adverse impact on the whole.

The Mormon Pioneer National Heritage Area has seen slow to moderate growth with periods of population loss. This fluctuating growth cycle has kept the area in a sort of stasis. Coupled with a level of isolation and low median income, the people of the MPNHA have adopted a conservation and preservation ethic that is based on practicality – to use what you have rather than destroy and build anew as their ancestors did from the time of settlement. This pioneer ethic continues today and provides Utah and the nation with some of the best examples of early life in the western frontier.

The challenge then for the MPNHA is to preserve this sense of place while creating a destination out of the substantial historic, natural, and cultural fabric of central Utah and a national market for the unique heritage products indigenous to the Heritage Area. This will be best accomplished through coordinated and linked interpretation with organized programming, education, and marketing and using the well established and emerging partnerships inherent to the Heritage Area designation.

Alternative 1: No Action Alternative

In the No Action Alternative the federal government would choose not to fund the MPNHA. This would leave the MPNHA to continue operating under its existing funding, policies, and practices. Without the assistance of the federal government, the interpretation would lack coordination, programming could not be enhanced or expanded, education would continue in a piece meal fashion, and marketing would remain localized and ineffective for reaching a larger market. All projects would have to rely on funding from local, state, or philanthropic sources and may continue at a slow pace while needed gap funding is sought.

Some of the identified early action projects would go forward including the state grant for Highway 89 interpretive sites and identifying markers. The two major interpretive centers would be delayed significantly and heritage products would continue to be isolated and operate only at a local level with no seed money for increasing local entrepreneurial capacity and new products.

Alternative 2: The People

This alternative would focus solely on the people and the history that they played a part in creating. This would allow for pockets of interpretation that are isolated to each heritage district but would ignore the interdependence and interlinked aspects of early Mormon pioneering efforts and how they were connected. The two main interpretive centers would be pursued, heritage products could be enhanced, and the sites of the

Black Hawk War could have their stories told. But the over arching theme of how and why people did what they did and went where they went would be lost. Those linkages that guide the visitor from one district to another would be left to happenstance rather than an organized and coordinated effort.

Alternative 3: Preferred Alternative: The People & The Land

The preferred alternative provides for the interpretation of the great moments and people off the Mormon Pioneer past but adds to it the interrelations of one community to another and why and how the Mormon Pioneers colonized where they did. This linkage through the landscape of central Utah provides for additional projects such as driving, bicycle, and motor coach tours that are woven together through the pattern of settlement and dispersion of early Mormon Pioneers who sought shelter, food, and resources within the vast high arid central Utah landscape. This more organized and organic system of linkages carrier a visitor seamlessly through the Heritage Area and provides the logical basis for events such as the clashing of cultures during the Black Hawk War to the crossing of the hardy Mormon Pioneers through “the hole in the rock” of the Colorado River canyon. It allows the MPNHA to present the entirety of the cultural landscape to the visitor as a continuum of events beginning in Fairview, one of the first Mormon Pioneer settlements in central Utah and ending in south Kane County in the Under the Rim Heritage district. This continuum is still at work today in the communities of the MPNHA and to tell the full story the MPNHA must work in partnership with State and Federal agencies that control much of the land that holds those organic linkages and explanations of the challenges presented then and the new challenges faced by today's MPNHA communities.

Potential Environmental Impacts

The MPNHA MP contains a set of policies, concepts, and programs but not specific projects at this time. As such, the MP's potential environmental impacts and benefits are more strategic and conceptual than specific and direct. Each federally assisted project funded by the MPNHA will require a separate and more specific Environmental Assessment.

No Action

Under the No Action Alternative, the MP would not be approved and existing local plans and policies would continue. This would leave all contemplated and planned projects to the availability of local, state, or philanthropic funding. The result could be the failure to adequately protect heritage resources, fragmented and inaccurate interpretation, and continued isolation of these remote communities. The available educational resources would be greatly diminished and future generations would not have access to the rich and import history of the MPNHA.

Action Alternatives

The two action alternatives will allow for a focused, organized interpretation, enhancement, preservation, and conservation of the Mormon Pioneer National Heritage Area resources and heritage products. The preferred alternative would add a seamless web logical connecting the heritage districts and providing an associative interpretive framework for the visitor to follow.

Alternatives Analysis

Alternative 1: No Action

Physiography and Soils

Cumulative Impacts

The soils and geography of the MPNHA would remain unchanged with no action other than the brief disturbances that may be caused by construction of the interpretive centers, should they become fully funded.

Conclusion

Due to the sporadic nature of the current funding available it is impossible to gauge when and if any adverse affect on the physiography and soils of the MPNHA may be caused by the inaction of the federal government.

Surface and Ground Water Resources

Cumulative Impacts

The MPNHA MP does not forward any projects involving water resources however water is a critical element and resource in the west and the MPNHA is no exception. With no federal action no adverse affects are anticipated for the area's water resources.

Conclusion

No Action would result in a continuation of present day policies, practices, and actions.

Air Quality

Cumulative Impacts

The No Action alternative would allow for current policies to continue and air quality is not an issue for the MPNHA at this time or for the foreseeable future.

Conclusion

The No Action alternative results in very little impact beyond current measures. The area is rural in character and sparsely populated, however it is dependent on visitors and tourism for an increasingly larger share of its annual product. With no MP in place, should the MPNHA be successful increasing visitation, the means, methods, and alternatives to link the vast Heritage Area together would be absent. This could cause an increase in vehicle miles traveled and particulate matter discharged to the air. While this may have an adverse affect, the affects are likely to be negligible.

Vegetation

Cumulative Impacts

The No Action alternative would allow present policies and actions to continue. The cumulative impact could be the lack of education and sensitivity to the presence or absence of native and invasive plant species.

Conclusion

The No Action alternative does not provide for the interpretation of the native environment of central Utah at the time of the pioneers. This gap in educational opportunities could cause an increase in the introduction of invasive and non-native

plant species that can out compete and over run native plants needed to provide essential habitat for wildlife species.

Fish and Wildlife

Cumulative Impacts

The majority of the land, waterways, and water bodies that support fish and wildlife are under federal and state control. The lack of an approved MP would permit state and federal agencies to continue with their current policies and practices.

Conclusion

Under the No Action Alternative fish and wildlife would continue to be managed by the current agencies with the existing policies and actions. By not approving the MP, any enhancement of the educational materials and interpretive opportunities regarding the high value fish and wildlife in the MPNHA would be lost.

Threatened and Endangered Species, Candidate Species, and Species of Special Concern

Cumulative Impacts

The No Action alternative allows for current policies and actions to continue. In general, the status of the sensitive species within Utah continues to decline. No Action will remove the possibility for limited voluntary conservation that could be achieved through outreach and education provided by the MPNHA and the exploration of conservation easements and other voluntary measures.

Conclusion

The disturbance of habitat is unlikely given the known locations of sensitive species which are almost exclusively within state or federal ownership. However No Action removes nearly any possible voluntary conservation of habitat on private land and would remove the obligation to survey undisturbed land that may have undocumented sensitive species habitat.

Land Use

Cumulative Impacts

Land use would remain unchanged with no federal action.

Conclusion

The pattern of land use in the MPNHA is unique in that it is relatively unchanged since the time of the pioneers. With no MP in place and no federal appropriations, it is expected that land use would remain the same with small changes over time to accommodate the slow growth historically experienced by the area.

Recreation

Cumulative Impacts

With no action on the part of the federal government the access to and promotion of the vast array of recreational opportunities available within the MPNHA would remain at current levels.

Conclusion

The National Parks, Forest, and Monuments would continue to receive the visitation that they currently receive, but without the MP the likelihood of bringing those visitors into the gateway communities and beyond is remote. Without the MP the communities of the MPNHA would continue to be isolated and the many recreational opportunities would be unknown to the average visitor.

Socio-Economic Considerations

Cumulative Impacts

The communities of the Mormon Pioneer National Heritage Area have a low per capita income compared to the rest of the state of Utah and the US in general. Their economies are heavily reliant on government and visitor service sectors as well as having some agricultural production that is dependent upon the use of BLM lands for grazing. In all the economies are unstable and lack diversity in employment sectors.

Conclusion

Without the MP, the opportunity to seed entrepreneurial opportunities for heritage products will be lost. Additionally, a National Heritage Area would provide the opportunity for increased heritage tourism services, tours, accommodations, and other heritage related businesses and support services. Without the MP the communities would not be provided with this opportunity for economic expansion.

Historic and Cultural Resources

Cumulative Impacts

The MPNHA has hundreds of listed property and large historic districts, one of which encompasses an entire town. However the productive use of an historic building is only guaranteed by productive occupancy and maintenance. A number of significant structures throughout the MPNHA are in need of restoration. Without the MP, many of these structures will continue to decay awaiting needed gap funding to proceed with restoration. In addition, without funding for interpretation to weave the communities of the MPNHA together through the telling of historic events and conflicts, the importance of the resources will never be brought to light.

Conclusion

If the federal government fails to act, there will be an adverse impact on historic resources. Without the critical gap funding that can be provided through the MPNHA the many worthy projects contemplated in this MP will at best take longer to complete, and at the worst will never be undertaken. Even with full funding, the MPNHA will be forced to undertake a sort of preservation triage.

Ethnic Resources

Cumulative Impacts

Today there are some well established ethnic resources celebrating the heritage of the pioneers and the Native American Indians that inhabited the area before them. However without the MP the ethnic resources in place will be limited to the current funding and opportunities present today.

Conclusion

Without the MPNHA MP the story of all of the ethnic groups will be left to each group's ability to fund and portray their uniqueness. This could leave certain stories untold or told by others and the historic variety of the peoples of the area could be lost.

Environmental Justice

Cumulative Impacts

Minority populations are very small throughout the MPNHA. There are a number of small Paiute reservations in Sevier County but their population is very low. The area has some diversity of backgrounds among the Caucasian population but no one group qualifies as a minority. With no MP there will be no opportunity to ensure that the history and impact of the Native American Indian is told in a compelling, accurate, and complete way.

Conclusion

The standard for environmental justice is to ensure that no one group receives a disproportionate share of the negative impacts of a federal action and that all groups are provided with an opportunity to participate in the planning and decision making surrounding a federal action. In this case, without a MP the participation of the minority communities present in the MPNHA will be lost. That in itself is a negative impact. The MP, whether undertaken in Alternative 2 or Alternative 3, will provide a positive impact that will at least marginally ensure the inclusion of minorities in the benefits of the MP and will not disproportionately assign any negative impact.

Alternative 2: The People

Physiography and Soils

Cumulative Impacts

Under this alternative, the two interpretive centers would be constructed. The construction will disturb and remove the soil of the site from potential use by other endeavors but it is unlikely that either site would remove high value agricultural soil from use.

Conclusion

No lasting adverse impact would be anticipated to the soils or the physiography of the MPNHA from this action.

Surface and Ground Water Resources

Cumulative Impacts

While the MPNHA MP does not forward any actions that would directly affect surface or ground water resources, the potential increase in development from heritage tourism related industries and the increase in visitation may require the communities to provide additional water supplies. Hotels and restaurants are notorious water consumers and the development of additional lodging, in particular, may carry an adverse impact on both surface water and ground water supplies.

Conclusion

In both Alternative 2 and 3, some measure of education and voluntary water conservation should be undertaken by heritage tourism industries. The MP could have an adverse impact on water supplies but that impact should be minor provided voluntary water conservation education and policies are adopted by the heritage tourism industries, particularly lodging and dining.

Air Quality

Cumulative Impacts

Under this alternative the linkages through the story of the landscape and its connection to and through the people would not be present. If this approach were successful in increasing visitation, it may still have singular destination appeal and there would be no "backbone" to build a multi-destination tour on. This would decrease the likelihood of a more mass transit or alternative transportation approach to visiting the remainder of the heritage area in a single well planned trip.

Conclusion

This alternative could have a moderate adverse impact on air quality due to increased vehicle miles traveled and lack of alternative modes of transportation.

Vegetation

Cumulative Impacts

The focus of this alternative is limited specifically to the people, their actions, and institutions. It would neglect the role and importance of the types and uses of the native vegetation in the MPNHA. Vegetation plays a critical role in a functional ecosystem and provides multiple resources in the MPNHA.

Conclusion

Without some provision for including the role of vegetation resources in this alternative there may be a minor adverse impact through a continuation of insensitivity toward the presence and importance of native plants and toward the introduction and proliferation of invasive and non-native species.

Fish and Wildlife

Cumulative Impacts

Under any of the alternatives, the vast majority of fish and wildlife habitat and their stewardship will continue to be performed by the state and federal governments due to the very small amount of privately held land. Private lands are concentrated into primarily developed areas with little to no habitat value. Under this alternative, The People, the focus remains on the people and their institutions and clashes and provides no larger context that would include the web of the natural environment which in part connected the communities.

Conclusion

This alternative would forego the opportunity to integrate an appreciation of the natural environment of the MPNHA and the fish and wildlife it supports. While an adverse impact to fish and wildlife is unlikely, enhanced education and interpretation of the importance of fish and wildlife and its role in the MPNHA would be lost.

Threatened and Endangered Species, Candidate Species, and Species of Special Concern

Cumulative Impacts

The majority of the known habitat that supports sensitive species is on state or federal land and water ways and water bodies. The potential for disturbing or adversely affecting these sensitive species is remote. This alternative's exclusive focus on the human element in the MPNHA removes the possibility for voluntary conservation on private land.

Conclusion

While this alternative does not have an adverse affect on sensitive species, it does limit the effectiveness of the MPNHA to the conservation of only the built environment. While it is recommended under both this alternative and the preferred alternative to survey any potential construction site for the presence of undocumented sensitive species, it will not forward any educational or interpretive program that would heighten public awareness of the importance and rarity of sensitive species.

Land Use

Cumulative Impacts

Land use would continue in its present pattern and be improved by the restoration and reoccupation of some historic structures. If the MPNHA is successful in marketing the heritage area as a destination the Region could experience some growth in the heritage tourism industries and land may be converted to new lodging, restaurant, entertainment, and cultural uses.

Conclusion

With the approval of the MP and the successful fulfillment of the goals of the MPNHA, the Region could experience new growth in both visitors and heritage tourism related industries. The pattern of land use and development that is present in the area has been relatively unchanged since the time of settlement. Steps should be taken by the respective heritage districts and chapters to ensure that the pattern of development is maintained. While growth is needed and diversification of the economy is welcomed, part of the uniqueness of the MPNHA is the way pioneer settlements were laid out and the principles of interdependence and community that are embodied in the patterns of development still present in the Region.

Without measures in place to preserve the unique land use patterns of the Heritage Area, the very success of the Heritage Area could adversely impact this important resource.

Recreation

Cumulative Impacts

This alternative, like the no action alternative, would neglect the opportunity to provide new recreational access and further promote the vast array of outdoor educational opportunities. Where the no action alternative simply provides no change, this alternative consciously abandons this opportunity.

Conclusion

The National Parks, Monuments and Forests would continue to receive the visitation that they currently receive. With the concentration of this alternative focused solely on the people and not the natural environment that connected them, there would be little reason to enhance those connections and draw the Park, Monument, or Forest visitor into the gateway communities and beyond. As with the no action alternative, this alternative would do little to address the isolation of the assets and communities of central Utah.

Socio-Economic Considerations

Cumulative Impacts

This alternative would expand the economic opportunities of the Region and add opportunities for start up heritage industries including lodgings, eateries, tours, and heritage product development. Economic diversity is needed in central Utah which is heavily reliant on government, visitor service sectors and the use of BLM range land for agricultural production as main drivers of their economies. Increasing the entrepreneurial capacity and opportunities will help diversify the economy and lower the Regions reliance on entities that are outside of local control.

Conclusion

This alternative would have a positive impact on the socioeconomic conditions of the Region and may result in a diversification and stabilization of the economies.

Historic and Cultural Resources

Cumulative Impacts

With the approval of the MP and sufficient appropriations, the MPNHA will be able to address four major restoration projects – the restoration of the three Carnegie Libraries

located in Manti, Ephraim, and Mt. Pleasant; and the restoration of the Casino Star Theatre in Gunnison.

Conclusion

This alternative will impact historic and cultural resources within the MPNHA, but is not likely to adversely affect these resources. Each project must, at a minimum, undergo Section 106 Review by the State Historic Preservation Officer prior to beginning the work.

Ethnic Resources

Cumulative Impacts

This alternative, The People, would certainly impact the ethnic resources of the MPNHA and would allow for an expansion and enhancement of the events and interpretation available that celebrate the ethnicity of the Mormon Pioneers and the Native American Indians that came before them.

Conclusion

This alternative would affect the ethnic resources of the MPNHA but is not likely to adversely affect these resources. The anticipated affect is an increase in the events and interpretation that celebrates the ethnicity of the Mormon Pioneers and the Native American Indians that came before them.

Environmental Justice

Cumulative Impacts

Minority populations are very small throughout the MPNHA. There are a number of small Paiute reservations in Sevier County but their population is very low. The Region has some diversity of backgrounds among the Caucasian population but no one group qualifies as a minority. Without federal action and approval of the MP there will be no opportunity to ensure that the history and impact of the Native American Indian is told in a compelling, accurate, and complete way and formed from their participation. This action would provide that opportunity to include the Tribes in the telling of the history of Region.

Conclusion

The standard for environmental justice is to ensure that no one group receives a disproportionate share of the negative impacts of a federal action and that all groups are provided with an opportunity to participate in the planning and decision making surrounding a federal action. In this case, the MP may provide a positive impact that will at least marginally ensure the inclusion of minorities in the benefits of the MP and will not disproportionately assign any negative impact. Steps should be taken to ensure the participation of the Ute, Paiute, and Sanpitch Tribes who once inhabited this region.

Alternative 3: Preferred Alternative – The People and the Land

Physiography and Soils

Cumulative Impacts

Under this alternative, the two interpretive centers would be constructed and future linkages would be added which might entail the construction of pathways and trails to connect the communities through the landscape. These construction projects will disturb and remove the soil from potential use by other endeavors but it is unlikely that any of these projects would remove high value agricultural soil from use.

Conclusion

No lasting adverse impact would be anticipated to the soils or the physiography of the MPNHA from this action.

Surface and Ground Water Resources

Cumulative Impacts

While the MPNHA MP does not forward any actions that would directly affect surface or ground water resources, the potential increase in development from heritage tourism related industries and the increase in visitation may require the communities to provide additional water supplies. Hotels and restaurants are notorious water consumers and the development of additional lodging, in particular, may carry an adverse impact on both surface water and ground water supplies.

Conclusion

In both Alternative 2 and 3, some measure of education and voluntary water conservation should be undertaken by heritage tourism industries. The MP could have an adverse impact on water supplies but that impact should be minor provided voluntary water conservation education and policies are adopted by the heritage tourism industries, particularly lodging and dining.

Air Quality

Cumulative Impacts

Under this alternative the linkages through the story of the landscape and its connection to and through the people would be fully developed. Under this alternative, the story of exploration, of the harsh environment, and the drive to expand can be explained along with the story of the natural resources that were so critical for the survival of all people; pioneers and Native American Indians alike. It also provides a clearer explanation of the conflicts that the area suffered, particularly the Black Hawk War which raged over a 400 mile corridor of central Utah, which erupted over the use and perception of the limited natural resources of the Region. By telling the story of the connection to the land and the progression of the pioneers into central Utah and beyond the critical connecting fabric of the natural environment will be present. This approach would provide the “backbone” needed to create a multi-destination tour. The methods for providing those multi-destination tours could range from mass transit to alternative transportation modes such as bicycling and equestrian trails. If this alternative is exercised and only the automobile is explored as a means of conveying the vast heritage experience that the MPNHA has to offer, then air quality may suffer due to the increased vehicle miles traveled.

Conclusion

This alternative could have a moderate adverse impact on air quality due to increased vehicle miles traveled if there is no effort to creatively package and offer a multi-destination tours. If tours are organized around alternative modes of transportation the adverse impact may be negligible and would also provide additional market segments that could be targeted – such as avid cyclists or equestrian enthusiasts.

Vegetation

Cumulative Impacts

Vegetation plays a critical role in a functional ecosystem and provides multiple resources in the MPNHA and within this alternative there is the opportunity to interpret the role that vegetation played in the survival of the Native American Indians and the pioneers. This would be best accomplished through partnering with the National Parks, Monuments, and Forests where native and sensitive plants are under stewardship and in many cases educational and interpretive information and programs may already be in place and simply need to be coordinated or enhanced to play a substantive role in telling the MPNHA story.

Conclusion

If this alternative exercises the opportunity to link the role of vegetation to the survival of the peoples of central Utah through coordination with the National Parks, Monuments, and Forests the MPNHA could lower the insensitivity toward the presence and importance of native plants and perhaps deter the continuation of the introduction and proliferation of invasive and non-native species.

Fish and Wildlife

Cumulative Impacts

Under any of the alternatives, the vast majority of fish and wildlife habitat and their stewardship will continue to be performed by the state and federal governments due to the very small amount of privately held land. Private lands are concentrated into primarily developed areas with little to no habitat value. Under this alternative there is the opportunity to relate the struggles of the peoples of central Utah to the larger context that includes the web of the natural environment which in part connected the communities and the role of fish and wildlife in their survival.

Conclusion

This alternative has the opportunity to integrate an appreciation of the natural environment and the fish and wildlife it supports into the larger MPNHA story and how the people and wildlife have depended on one another for their survival. Adverse impacts to fish and wildlife are unlikely under any of the alternatives, but this alternative has the opportunity to enhance educational and interpretive opportunities to tell of the importance of fish and wildlife and its role in the MPNHA.

Threatened and Endangered Species, Candidate Species, and Species of Special Concern

Cumulative Impacts

The majority of the known habitat that supports sensitive species is on state or federal land, water ways, and/or water bodies. The potential for disturbing or adversely affecting these sensitive species is remote. This alternative has the potential for encouraging

voluntary conservation of valuable habitat and even habitat restoration on private land through its broader scope in telling the MPNHA story.

Conclusion

This alternative does not have an adverse affect on sensitive species, but does have the opportunity for forwarding voluntary conservation measures on private lands. While it is recommended under both this alternative and the prior alternative to survey any potential construction site for the presence of undocumented sensitive species, this alternative has an opportunity to increase and an enhance educational or interpretive programs that would heighten public awareness of the importance and rarity of sensitive species.

Land Use

Cumulative Impacts

Land use would continue in its present pattern and be improved by the restoration and reoccupation of some historic structures. If the MPNHA is successful in marketing the heritage area as a destination the Region could experience some growth in the heritage tourism industries and land may be converted to new lodging, restaurant, entertainment, and cultural uses and trails and pathways connecting the communities via alternative modes of transportation.

Conclusion

With the approval of the MP and the successful fulfillment of the goals of the MPNHA, the Region could experience new growth in both visitors and heritage tourism related industries. The pattern of land use and development that is present in the area has been relatively unchanged since the time of settlement. Steps should be taken by the respective heritage districts and chapters to ensure that the pattern of development is maintained. While growth is needed and diversification of the economy is welcomed, part of the uniqueness of the MPNHA is the way pioneer settlements were laid out and the principles of interdependence and community that are embodied in the patterns of development still present in the Region.

Without measures in place to preserve the unique land use patterns of the Heritage Area, the very success of the Heritage Area could adversely impact this important resource.

Recreation

Cumulative Impacts

This alternative provides an opportunity to connect the average National Park, Monument, and/or Forest visitor to the deep and rich history of the MPNAH through the telling of the story of the natural environment that connects all of the resources of central Utah together.

Conclusion

The National Parks, Monuments and Forests may see an increase in visitation due to the efforts of the MPNHA. This alternative provides an opportunity to connect these valuable resources to the story of the peoples of central Utah and the communities they inhabit. If done successfully this alternative may draw visitors into the gateway communities and beyond, increasing the length of their stay and broadening the visitor experience.

Socio-Economic Considerations

Cumulative Impacts

This alternative would expand the economic opportunities of the Region and add opportunities for start up heritage industries including lodgings, eateries, tours, and heritage product development. Economic diversity is needed in central Utah which is heavily reliant on government, visitor service sectors and the use of BLM range land for agricultural production as main drivers of their economies. Increasing the entrepreneurial capacity and opportunities will help diversify the economy and lower the Regions reliance on entities that are outside of local control.

Conclusion

This alternative would expand the economic opportunities of the Region and add opportunities for start up heritage industries including lodgings, eateries, tours, and heritage product development. Economic diversity is needed in central Utah which is heavily reliant on government, visitor service sectors and the use of BLM range land for agricultural production as main drivers of their economies. Increasing the entrepreneurial capacity and opportunities will help diversify the economy and lower the Regions reliance on entities that are outside of local control.

Historic and Cultural Resources

Cumulative Impacts

With the approval of the MP and sufficient appropriations, the MPNHA will be able to address four major restoration projects – the restoration of the three Carnegie Libraries located in Manti, Ephraim, and Mt. Pleasant; and the restoration of the Casino Star Theatre in Gunnison.

Conclusion

This alternative will impact historic and cultural resources within the MPNHA, but is not likely to adversely affect these resources. Each project must, at a minimum, undergo Section 106 Review by the State Historic Preservation Officer prior to beginning the work.

Ethnic Resources

Cumulative Impacts

The preferred alternative of The People and The Land, like the prior alternative, would certainly impact the ethnic resources of the MPNHA and would allow for an expansion and enhancement of the events and interpretation available that celebrate the ethnicity of the Mormon Pioneers and the Native American Indians that came before them.

Conclusion

This alternative would affect the ethnic resources of the MPNHA but is not likely to adversely affect these resources. The anticipated affect is an increase in the events and interpretation that celebrates the ethnicity of the Mormon Pioneers and the Native American Indians that came before them.

Environmental Justice

Cumulative Impacts

Minority populations are very small throughout the MPNHA. There are a number of small Paiute reservations in Sevier County but their population is very low. The Region has some

diversity of backgrounds among the Caucasian population but no one group qualifies as a minority. Without federal action and approval of the MP there will be no opportunity to ensure that the history and impact of the Native American Indian is told in a compelling, accurate, and complete way and formed from their participation. This action would provide that opportunity to include the Tribes in the telling of the history of Region.

Conclusion

The standard for environmental justice is to ensure that no one group receives a disproportionate share of the negative impacts of a federal action and that all groups are provided with an opportunity to participate in the planning and decision making surrounding a federal action. In this case, the MP may provide a positive impact that will at least marginally ensure the inclusion of minorities in the benefits of the MP and will not disproportionately assign any negative impact. Steps should be taken to ensure the participation of the Ute, Paiute, and Sanpitch Tribes who once inhabited this region.

Comparative Table of Alternatives

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Soils	Due to the sporadic nature of the current funding available it is impossible to gauge when and if any adverse affect on the physiography and soils of the MPNHA may be caused by the inaction of the federal government.	No lasting adverse impact would be anticipated to the soils or the physiography of the MPNHA from this action.	No lasting adverse impact would be anticipated to the soils or the physiography of the MPNHA from this action.
Surface and Ground Water	No Action would result in a continuation of present day policies, practices, and actions.	In both Alternative 2 and 3, some measure of education and voluntary water conservation should be undertaken by heritage tourism industries. The MP could have an adverse impact on water supplies but that impact should be minor provided voluntary water conservation education and policies are adopted by the heritage tourism industries, particularly lodging and dining.	In both Alternative 2 and 3, some measure of education and voluntary water conservation should be undertaken by heritage tourism industries. The MP could have an adverse impact on water supplies but that impact should be minor provided voluntary water conservation education and policies are adopted by the heritage tourism industries, particularly lodging and dining.

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Air Quality	<p>The No Action alternative results in very little impact beyond current measures. The area is rural in character and sparsely populated, however it is dependent on visitors and tourism for an increasingly larger share of its annual product. With no MP in place, should the MPNHA be successful increasing visitation, the means, methods, and alternatives to link the vast Heritage Area together would be absent. This could cause an increase in vehicle miles traveled and particulate matter discharged to the air. While this may have an adverse affect, the affects are likely to be negligible.</p>	<p>This alternative could have a moderate adverse impact on air quality due to increased vehicle miles traveled and lack of alternative modes of transportation.</p>	<p>This alternative could have a moderate adverse impact on air quality due to increased vehicle miles traveled if there is no effort to creatively package and offer a multi-destination tours. If tours are organized around alternative modes of transportation the adverse impact may be negligible and would also provide additional market segments that could be targeted – such as avid cyclists or equestrian enthusiasts.</p>

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Vegetation	The No Action alternative does not provide for the interpretation of the native environment of central Utah at the time of the pioneers. This gap in educational opportunities could cause an increase in the introduction of invasive and non-native plant species that can out compete and over run native plants needed to provide essential habitat for wildlife species.	Without some provision for including the role of vegetation resources in this alternative there may be a minor adverse impact through a continuation of insensitivity toward the presence and importance of native plants and toward the introduction and proliferation of invasive and non-native species.	If this alternative exercises the opportunity to link the role of vegetation to the survival of the peoples of central Utah through coordination with the National Parks, Monuments, and Forests the MPNHA could lower the insensitivity toward the presence and importance of native plants and perhaps deter the continuation of the introduction and proliferation of invasive and non-native species.
Fish and Wildlife	Under the No Action Alternative fish and wildlife would continue to be managed by the current agencies with the existing policies and actions. By not approving the MP, any enhancement of the educational materials and interpretive opportunities regarding the high value fish and wildlife in the MPNHA would be lost.	This alternative would forego the opportunity to integrate an appreciation of the natural environment of the MPNHA and the fish and wildlife it supports. While an adverse impact fish and wildlife is unlikely, enhanced education and interpretation of the importance of fish and wildlife and its role in the MPNHA would be lost.	This alternative has the opportunity to integrate an appreciation of the natural environment and the fish and wildlife it supports into the larger MPNHA story and how the people and wildlife have depended on one another for their survival. Adverse impacts to fish and wildlife are unlikely under any of the alternatives, but this alternative has the opportunity to enhance educational and interpretive opportunities to tell of the importance of fish and wildlife and its role in the MPNHA.

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Threatened and Endangered Species	The disturbance of habitat is unlikely given the known locations of sensitive species which are almost exclusively within state or federal ownership. However No Action removes nearly any possible voluntary conservation of habitat on private land and would remove the obligation to survey undisturbed land that may have undocumented sensitive species habitat.	While this alternative does not have an adverse affect on sensitive species, it does limit the effectiveness of the MPNHA to the conservation of only the built environment. While it is recommended under both this alternative and the preferred alternative to survey any potential construction site for the presence of undocumented sensitive species, it will not forward any educational or interpretive program that would heighten public awareness of the importance and rarity of sensitive species.	This alternative does not have an adverse affect on sensitive species, but does have the opportunity for forwarding voluntary conservation measures on private lands. While it is recommended under both this alternative and the prior alternative to survey any potential construction site for the presence of undocumented sensitive species, this alternative has an opportunity to increase and an enhance educational or interpretive programs that would heighten public awareness of the importance and rarity of sensitive species.

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Land Use	<p>The pattern of land use in the MPNHA is unique in that it is relatively unchanged since the time of the pioneers. With no MP in place and no federal appropriations, it is expected that land use would remain the same with small changes over time to accommodate the slow growth historically experienced by the area.</p>	<p>With the approval of the MP and the successful fulfillment of the goals of the MPNHA, the Region could experience new growth in both visitors and heritage tourism related industries. The pattern of land use and development that is present in the area has been relatively unchanged since the time of settlement. Steps should be taken by the respective heritage districts and chapters to ensure that the pattern of development is maintained. While growth is needed and diversification of the economy is welcomed, part of the uniqueness of the MPNHA is the way pioneer settlements were laid out and the principles of interdependence and community that are embodied in the patterns of development still present in the Region.</p> <p>Without measures in place to preserve the unique land use patterns of the Heritage Area, the very success of the Heritage Area could adversely impact this important resource.</p>	<p>With the approval of the MP and the successful fulfillment of the goals of the MPNHA, the Region could experience new growth in both visitors and heritage tourism related industries. The pattern of land use and development that is present in the area has been relatively unchanged since the time of settlement. Steps should be taken by the respective heritage districts and chapters to ensure that the pattern of development is maintained. While growth is needed and diversification of the economy is welcomed, part of the uniqueness of the MPNHA is the way pioneer settlements were laid out and the principles of interdependence and community that are embodied in the patterns of development still present in the Region.</p> <p>Without measures in place to preserve the unique land use patterns of the Heritage Area, the very success of the Heritage Area could adversely impact this important resource.</p>

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Recreation	With no action on the part of the federal government the access to and promotion of the vast array of recreational opportunities available within the MPNHA would remain at current levels.	The National Parks, Monuments and Forests would continue to receive the visitation that they currently receive. With the concentration of this alternative focused solely on the people and not the natural environment that connected them, there would be little reason to enhance those connections and draw the Park, Monument, or Forest visitor into the gateway communities and beyond. As with the no action alternative, this alternative would do little to address the isolation of the assets and communities of central Utah.	The National Parks, Monuments and Forests may see an increase in visitation due to the efforts of the MPNHA. This alternative provides an opportunity to connect these valuable resources to the story of the peoples of central Utah and the communities they inhabit. If done successfully this alternative may draw visitors into the gateway communities and beyond, increasing the length of their stay and broadening the visitor experience.

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Socio-Economic Environment	Without the MP, the opportunity to seed entrepreneurial opportunities for heritage products will be lost. Additionally, a National Heritage Area would provide the opportunity for increased heritage tourism services, tours, accommodations, and other heritage related businesses and support services. Without the MP the communities would not be provided with this opportunity for economic expansion.	This alternative would expand the economic opportunities of the Region and add opportunities for start up heritage industries including lodgings, eateries, tours, and heritage product development. Economic diversity is needed in central Utah which is heavily reliant on government, visitor service sectors and the use of BLM range land for agricultural production as main drivers of their economies. Increasing the entrepreneurial capacity and opportunities will help diversify the economy and lower the Regions reliance on entities that are outside of local control.	This alternative would expand the economic opportunities of the Region and add opportunities for start up heritage industries including lodgings, eateries, tours, and heritage product development. Economic diversity is needed in central Utah which is heavily reliant on government, visitor service sectors and the use of BLM range land for agricultural production as main drivers of their economies. Increasing the entrepreneurial capacity and opportunities will help diversify the economy and lower the Regions reliance on entities that are outside of local control.
Historic and Cultural Resources	If the federal government fails to act, there will be an adverse impact on historic resources. Without the critical gap funding that can be provided through the MPNHA the many worthy projects contemplated in this MP will at best take longer to complete, and at the worst will never be undertaken. Even with full funding, the MPNHA will be forced to undertake a sort of preservation triage.	This alternative will impact historic and cultural resources within the MPNHA, but is not likely to adversely affect these resources. Each project must, at a minimum, undergo Section 106 Review by the State Historic Preservation Officer prior to beginning the work.	This alternative will impact historic and cultural resources within the MPNHA, but is not likely to adversely affect these resources. Each project must, at a minimum, undergo Section 106 Review by the State Historic Preservation Officer prior to beginning the work.

Criteria	Alternative 1: No Action	Alternative 2: The People	Alternative 3: The People & The Land (preferred)
Ethnic Resources	Without the MPNHA MP the story of all of the ethnic groups will be left to each group's ability to fund and portray their uniqueness. This could leave certain stories untold or told by others and the historic variety of the peoples of the area could be lost.	This alternative would affect the ethnic resources of the MPNHA but is not likely to adversely affect these resources. The anticipated affect is an increase in the events and interpretation that celebrates the ethnicity of the Mormon Pioneers and the Native American Indians that came before them.	This alternative would affect the ethnic resources of the MPNHA but is not likely to adversely affect these resources. The anticipated affect is an increase in the events and interpretation that celebrates the ethnicity of the Mormon Pioneers and the Native American Indians that came before them.
Environmental Justice	The standard for environmental justice is to ensure that no one group receives a disproportionate share of the negative impacts of a federal action and that all groups are provided with an opportunity to participate in the planning and decision making surrounding a federal action. In this case, without a MP the participation of the minority communities present in the MPNHA will be lost. That in itself is a negative impact. The MP, whether undertaken in Alternative 2 or Alternative 3, will provide a positive impact that will at least marginally ensure the inclusion of minorities in the benefits of the MP and will not disproportionately assign any negative impact.	The standard for environmental justice is to ensure that no one group receives a disproportionate share of the negative impacts of a federal action and that all groups are provided with an opportunity to participate in the planning and decision making surrounding a federal action. In this case, the MP may provide a positive impact that will at least marginally ensure the inclusion of minorities in the benefits of the MP and will not disproportionately assign any negative impact. Steps should be taken to ensure the participation of the Ute, Paiute, and Sanpitch Tribes who once inhabited this region.	The standard for environmental justice is to ensure that no one group receives a disproportionate share of the negative impacts of a federal action and that all groups are provided with an opportunity to participate in the planning and decision making surrounding a federal action. In this case, the MP may provide a positive impact that will at least marginally ensure the inclusion of minorities in the benefits of the MP and will not disproportionately assign any negative impact. Steps should be taken to ensure the participation of the Ute, Paiute, and Sanpitch Tribes who once inhabited this region.

FONSI Report



National Park Service
U.S. Department of the Interior
Mormon Pioneer National Heritage Area
Central and Southern Utah

Finding of No Significant Impact Mormon Pioneer National Heritage Area General Management Plan

Background

An environmental assessment has been prepared in compliance with the National Environmental Policy Act, (EA) to examine alternatives and environmental impacts associated with the approval of the Mormon Pioneer National Heritage Area (MPNHA) General Management Plan (Plan). The Plan will guide future projects within rural central and southern Utah to protect, conserve, and enhance the cultural, natural, and historical features of the MPNHA. The EA was prepared to meet the current requirements of the National Park Service for compliance with the National Environmental Protection Act of the Department of the Interior. Currently, the area of the MPNHA functions under a Utah state heritage designation and the federal designation will expand the current heritage preservation, interpretation, and enhancement.

The proposal is to approve a Plan/EA that will guide the development of the MPNHA during its ten year authorization. While the Plan/EA suggests a number of undertakings, the Plan and its associated EA have not examined the specific impacts of any of these proposed projects. Instead the EA suggests that each proposed project, once funded and the scope of the undertaking is determined, undertake its own appropriate level of analysis. The function of the Plan/EA is to guide the Management entity in setting its priorities, advancing funding for specific projects, and to provide an overall framework for the working relationship between the National Park Service and the Management Entity.

Selection of the Preferred Alternative

Three alternatives were evaluated in the EA including alternative 1 (No Action), alternative 2 (The People), and alternative 3 (The People and The Land). Alternative 3 is the Heritage Area's preferred alternative because it best meets the legislative intent, purpose, and need for the project. The educational aspects, the visitor experience, and the history of the Mormon Pioneers can only be preserved, interpreted, and conserved if the interaction of man and the harsh Utah desert environment is told in a holistic manner.

Under alternative 3 the broadest range of projects can be undertaken within the vast heritage area. Those undertakings may include a range of possible undertaking, from fiscal support of heritage events and programming, to assisting heritage artisan coops, to the construction of interpretive centers. Unlike a standard federal undertaking, these potential projects will be undertaken in partnership with a variety of public and private partners. The federal funding will serve to "fill the gaps" which will make a certain project possible. The EA, therefore, has served as a catalog of the various salient features and assets of the MPNHA and has suggested certain precautions and considerations when undertaking a

project in a specific area of the heritage area. The MPNHA is further broken into five "Chapters" that cover six counties and the Plan/EA are similarly organized. Therefore as each Chapter determines what projects it will pursue, each Chapter, in consultation with the Management Entity and the National Park Service, will determine what level of analysis necessary for the project that receives federal funding.

Mitigation Measures

No direct mitigation measures are required to approve the Plan/EA. The Plan/EA suggests a number of considerations for a potential projects, however the approval of the Plan/EA does not require any mitigation measures.

Alternatives Considered

Three alternatives were evaluated in the environmental assessment including the no-action alternative and two action alternatives. Under alternative 1, No-Action, the Plan would not be approved and the MPNHA would go unfunded. Alternative 2, The People, is not the preferred alternative as it would concentrate all of the effort on the evolution of the human institutions, cultures, and settlements. Alternative 3, The People and the Land, is the preferred alternative, where the MPNHA would use the dynamic of the unique and harsh environment and its influence on the people and the unique adaptations made to live in harmony or domination over the central and southern Utah climate.

Environmentally Preferred Alternative

Alternative 3 is the environmentally preferred alternative. The environmentally preferred alternative is determined by applying the six criteria suggested in §101 the National Environmental Policy Act. According to these criteria, the environmentally preferred alternative should 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; 2) assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings; 3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences; 4) preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice; 5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative 3 is the environmentally preferred alternative because it best addresses these six evaluation factors and fulfills the legislative requirements of the MPNHA designation. Alternative 3, The People and the Land, will provide for a holistic approach to the unique qualities of central and southern Utah. Approval of the Plan/EA will allow the MPNHA to receive federal funding that will allow the Heritage Area to preserve this historically, culturally and naturally important area for future generations.

Why the Preferred Alternative Will Not Have a Significant Effect on the Human Environment

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

Implementation of the preferred alternative may result in some temporary adverse impacts however the overall benefit of the project outweighs these negative effects. Until the MPNHA receives funding, it is impossible to assess what measures will be necessary to safeguard any of the environmentally sensitive attributes of the MPNHA.

The overall benefit of implementing the preferred alternative is that the MPNHA will be provided with important federal funding that will bridge the gap between project initiation and abandonment. The funding that the MPNHA will receive will also provide a much needed boost to the local economy, enabling a number of rural enterprises to become stable and provide an avenue out of isolation and poverty.

The degree to which the proposed action affects public health or safety

The preferred alternative will have an overall beneficial effect on public health and safety. Approval of the Plan/EA will not result in any direct beneficial or negative effects, however the provision of future funding by approving the Plan/EA may provide for improved public health and safety.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

The approval of the Plan/EA and implementation of the preferred alternative will not negatively impact unique characteristics of the MPNHA including park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas but may serve improve those attributes. The Utah State Historic Preservation Officer issued a letter on August 26, 2009 stating that the project conforms to §36CFR800 and meets the requirement for review under Section 106 and approval of the plan will not create an adverse impact.

The degree to which the effects on the quality of the human environment are likely to be highly controversial

Throughout the public process, the proposal to approve the Plan/EA was not in any way controversial and the proposed heritage area projects and their effects are not expected to generate future controversy. Portions of the public were concerned with the involvement of the National Park Service, but through the extensive public outreach and education of the public in regard to the Management Entity, its role and the National Park Service role, those concerns were addressed. In general the Plan/EA has received enthusiastic positive support.

The degree to which the possible effects on the quality on the human environment are highly uncertain or involve unique or unknown risks

The effects of approving the Plan/EA are very straightforward and in no way poses uncertainties. The environmental process has not identified any effects that may involve highly unique or unknown risks.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The preferred alternative is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate

a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

Cumulative effects were analyzed in the environmental assessment and no significant cumulative impacts were identified.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

This action will not adversely affect any scientific, cultural, or historical resources. On the contrary, failure to approve the preferred alternative may result in adverse effects on these resources. All future projects that receive MPNHA federal funding may need to conduct a separate analysis under §106 of the National Historic Preservation Act. The included list of National Register properties within the Plan were downloaded on June 2, 2008. On August 26, 2009, the Utah State Historic Preservation Officer concurred with this determination that no historic properties would be adversely affected by this action.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The EA lists all of the potentially affected endangered or threatened species. Each future project may be required to consult with the U.S. Fish and Wildlife under §7 of the Endangered Species Act as necessary. Future consultation with Utah Natural Resources Department may also be necessary. The list of endangered or threatened species within the Plan was downloaded from the State of Utah and the National Fish and Wildlife Service on June 2, 2008.

Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment

The action will not violate any federal, state, or local laws or environmental protection laws.

Appropriate Use, Unacceptable Impacts, and Impairment

Sections 1.5 and 8.12 of NPS *Management Policies* underscore the fact that not all uses are allowable or appropriate in units of the National Park System. However the MPNHA and its Management Entity is a privately organized and managed 501(c)3 non-profit corporation. The relationship between the National Park Service and the Management Entity is clearly delineated through the enabling legislation and through a significant history of standard practices throughout the twenty-five other federally authorized heritage areas. Therefore these policies have no bearing on this project and its approval is in no way contrary to these policies.

Public Involvement

The environmental assessment was made available for public review and comment for over a year beginning on July 1, 2008 and concluding June 30, 2009. To notify the public of this review period numerous press releases were prepared, mailed to stakeholders, affiliated Native American tribes, interested parties, and newspapers. Public presentations were conducted before every municipality, before every County Commission, and in public locations within each Chapter. Copies of the document were sent to certain agencies, interested parties and made available in local repositories. Approximately fifty (50)

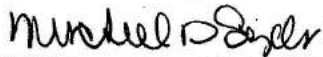
comments were received during this review period. The comments were generally very positive and complimentary in nature. Four comments were received describing concerns over local zoning and private property rights. The enabling legislation for the Mormon Pioneer National Heritage Area and well as the draft management plan address these issues specifically. The management entity for the Mormon Pioneer National Heritage Area does not possess any local zoning authority. In addition, safeguards for the protection of private property rights can be found the enabling legislation for the National Heritage Area as well in their management plan. The FONSI will be sent to all commentators.

Conclusion

As described above, the preferred alternative does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Environmental impacts that may occur in future projects under the approved Plan/EA being limited in context and intensity, with any adverse impacts being localized, short term, and negligible to moderate. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region from the approval of the Plan/EA. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law. This is a broad-scope planning document, and while it is not setting a precedent, it is setting the general direction for establishment of the area.

Based on the foregoing, the National Park Service has determined that an EIS is not required for this project and thus will not be prepared.

Approved:



Michael D. Snyder

10/7/09

Date

Director, Intermountain Region, National Park Service

Consultation and Coordination

The consultation and coordination process was undertaken with the participation of the National Park Service, Utah State Governors Office of Travel, Utah State Department of Community and Culture, Utah State Historic Presentation Officer, the Five and Six County Associations of Governments and Travel Directors, County Commissions, Utah State University Extension Service, and the Yuma Crossing National Heritage Area.

Environmental Assessment Bibliography

This is not a complete bibliography of all of the data collected and consulted but is rather the best of the data found regarding the environment of the Mormon Pioneer National Heritage Area. It is hoped that these references will assist future Environmental Assessments conducted for specific projects within the Mormon Pioneer National Heritage Area.

Endangeredspecie.com, www.endangeredspecie.com/states/ut.htm, Listing of sensitive species in Utah

Geology.com, www.geology.com/cities-map/utah.shtml , map of towns and cities and roadways in Utah

Intermountain Native Plant Growers Association, www.utahschoice.org/choice , listing of native plants, locations, growing conditions and photographs

National Register of Historic Places, www.nationalregisterofhistoricplaces.com/welcome.html , links and pages for properties and districts on the National Register of Historic Places

OnlineUtah.Com, www.onlineutah.com/citiesincounties.shtml, all data regarding cities located in Sanpete, Sevier, Piute, Garfield, Wayne, and Kane Counties

Rural Policy Research Institute, *Demographic and Economic Profile, Utah*, July 2006

US Census Bureau, www.census.gov/ , this is the main website for the US Census Bureau and is the clearing house for the most accurate and up to date demographic and economic data available for the United States and where the Quick Facts data tables are reprinted from

US Department of Agriculture, Natural Resource Conservation Service, <http://plants.usda.gov/index.html> , plants database

US Department of Agriculture, Natural Resource Conservation Service, www.ut.nrcs.usda.gov/technical/soils/index.html , this is the website for in depth soils information. Data for this Environmental Assessment was taken from a much broader aggregate source but this site should be consulted for specific soil information for any ground disturbing activity. Some expansive soils may be present, making a geotechnical report necessary prior to beginning construction.

US Department of Agriculture, US Forest Service, www.fs.fed.us/ , this website provides information and maps regarding the National Forests of the US

US Department of the Interior, National Park Service, www.nps.gov, provides information on the National Parks and Monuments throughout the MPNHA and a database of the listings on the National Register of Historic Places within the state of Utah

US Department of the Interior, US Geological Survey, www.nationalatlas.gov, all information posted relating to the state of Utah

Utah Department of Community and Economic Development, Division of Housing and Community Development, *State of Utah Consolidated Plan 2006-2010*, this document is a compilation of all of the consolidated plans in the state of Utah as prepared by the Utah Associations of Governments

Utah Department of Environmental Quality, Division of Water Quality, www.waterquality.utah.gov/watersheds/lakes.htm , documentation of water quality in the various water bodies in the MPNHA

Utah Department of Natural Resources, Utah Division of Wildlife Resources, www.wildlife.utah.gov/index.php , this website provides in depth information on wildlife and its habitat throughout the MPNHA and maintains the links listed in this Environmental Assessment regarding species location and habitat

Utah Geological Survey, www.geology.utah.gov/index.htm , a site with vast amounts of geologic data including formations, water bodies, water quality, aquifers, etc.

Utah Office of Tourism, www.utah.com, this website provides cultural and recreational information for the state of Utah

Utah State Parks, www.utahparks.com/stateparks.phtml , map showing all of the state parks and National Parks, Monuments, and Forests in the state of Utah with sub web pages with information on each state park

Utah State University, Department of Horticulture, www.hort.usu.edu/PlantGuide/index.htm , listing of plants native to the state of Utah

Utah State Government, Administrative Maps Clearing House, www.maps.utah.gov/subject/subject.php?var=Administrative%20Boundaries , this website provides a number of useful maps regarding jurisdictions, land ownership, etc. within the state of Utah.

Utahrareplants.org, www.utahrareplants.org/rpg_species.html , listing of rare plants located within the state of Utah

