

Pawnee Pioneer Trails Scenic & Historic Byway Interpretive Plan

Final Draft
3/16/08



This document is the work product of Exhibit Design Associates, a Colorado corporation, working in cooperation with the USDA Center for Design and Interpretation on behalf of the Pawnee Pioneer Trails Scenic and Historic Byway Council.



1269 Chasm Drive
Estes Park, CO 80517
970-577-5436

www.exhibitdesignassociates.com

Table of Contents

Table of Contents	a
Introduction	1
Purpose & Need.....	1
Byway History and Organization	1
Mission & Vision Statements	2
Objectives for Interpretive Media.....	2
Methodology	3
Orientation Map and Graphic Panel	5
Background	7
Natural Resource Summary	7
Geography & Land Use.....	7
Geology & Paleontology	7
Climate & Plant Communities.....	8
Wildlife	9
Cultural Resource Summary.....	10
Human History.....	10
Archaeology	11
Audience Analysis	15
National Tourism & Recreation Trends.....	15
Profile of the American Traveler	15
Heritage Tourism	15
Activity Participation.....	16
Internet Use Among Travelers	16
Tourism and Recreation Trends in Colorado	17
New Millennium Tourism Downturn.....	17
Profile of Colorado Visitors.....	18
Heritage Tourism in Colorado.....	20
Tourism and Recreation Trends in Northeast Colorado.....	21
Strategic Implications of Byway Audience Analysis	23
Segmentation of the Byway Audience	24
Table 1: Byway Audience Segmentation.....	24
Existing Interpretive Opportunities.....	25
Table 2: Existing Interpretive Opportunities.....	25
Museums in Byway Communities.....	29
Briggsdale Heritage House.....	29
Grover Depot Museum	29
Fort Morgan Museum	30
Overland Trail Museum (Sterling).....	31
Statements of Significance.....	33
PPTSHB Statements of Significance.....	33
Table 3: Topic Rankings	34
Central Theme	34
Primary Themes	35
Human Culture & History.....	35
Migration and Settlement Patterns.....	35
Land Use.....	35
Geology & Paleontology	35
Ecology.....	35
Opportunities for New Media	37
Table 4: Media Prescription.....	37
Gateways	41
Ault	42
Fort Morgan.....	43
Sterling.....	44
Implementation Priorities & Cost Estimates.....	45
Stone Line Camp at Pawnee Buttes.....	45

Website.....	46
Traveling Exhibit(s)	47
Byway Movie.....	48
Gateways in Ault, Fort Morgan	48
Wayside Exhibits	48
Gateway in Sterling	49
Full-Color Bird Tour Brochure.....	49
Appendix A: Bibliography.....	50
Printed Material.....	50
Internet-Based Resources.....	52
Appendix B: Byway Council Members	53
Appendix C: Audience Analysis Data	55
Table 5: Domestic Trip Activity Participation	55
Table 6: Fastest-Growing Activities, 1982-2002	55
Table 7: Participation Trends in Land-Based Outdoor Recreation, 1994-95 to 2000-02	56
Table 8: Main Purpose of Colorado Overnight Pleasure Trips vs. U.S. Norm, 2006	56
Table 9: Sights Seen & Things Experienced on Colorado Overnight Pleasure Trips, 2006	57
Table 10: Sports and Recreation Preferences of Colorado Leisure Travelers	58
Table 11: Motivations for Choosing Out-of-Home Leisure Activities	58
Table 12: Motivations for Visiting State Parks	59
Table 13: Information Sources Used by Overnight Pleasure Travelers in Colorado	59
Table 14: Information Sources Used by Colorado State Park Users	60
Table 15: Colorado's Heritage Tourism Product vs. Colorado's Image.....	60
Table 17: States of Origin of Overland Trail Museum Users, 2006-2007	61
Table 18: Intended Activities During a State Park Visit(s).....	62
Appendix D: Gateway Concepts & Public Comments.....	63

Introduction

This section introduces the reader to the history of the Pawnee Pioneer Trails Scenic and Historic Byway (PPTSHB), its mission, the objectives for proposed interpretive media and the methodology used to develop this plan.

Purpose & Need

The purpose of this document is to develop a prioritized implementation list of interpretive and informational media that the Pawnee Pioneer Trails Scenic and Historic Byway intends to develop in the ten-year period from 2008-2018. It is needed to organize and focus the Byway's educational, preservation and fundraising efforts, and to establish a solid thematic foundation to direct media development.

Byway History and Organization

Grassroots efforts led by citizens of Byway communities and surrounding rural areas led to the recommendation that PPTSHB be designated a Colorado Scenic and Historic Byway in late 1991. The Colorado Scenic and Historic Byways Commission voted unanimously to recommend acceptance of the citizen proposal in particular because the Commission felt "...this route contributes to the overall system of scenic byways as the only byway that truly represents the agricultural heritage of eastern Colorado, and as an important example of the diversity of Colorado's geography." Formal approval of the designation was granted by the Colorado Transportation Commission in February 1992.

The Byway is governed by a Council that consists of appointed or elected representatives of communities and organizations with an interest in helping the Byway achieve its mission (see Appendix B for a list of Council members). Under corporate bylaws established by a Memorandum of Understanding signed in December 1992, the Council is governed by a seven-member Board of Directors. The Board consists of representatives from Logan, Morgan and Weld counties, three members-at-large and one representing the Pawnee National Grassland unit of the Arapaho/Roosevelt National Forest.

The Byway Council was incorporated as a Colorado non-profit corporation in March 1994. A corridor management plan was completed in July 1999.

Significant accomplishments of the Byway to date include:

- publication of a full-color brochure
- installation of Byway-related exhibits at the Dave Hamil Building of the Overland Trail Museum in Sterling
- installation of graphic panels in the I-76 Welcome Center in Sterling
- installation of interpretive kiosks (in the motif of the Roadside Interpretation Project of the Colorado Historical Society found on highways across the state) at Ault, New Raymer, Grover, Sterling and Fort Morgan in cooperation with local historical societies
- installation of interpretive panels in existing kiosks at Crow Valley Recreation Area
- installation of standard Colorado scenic byway directional signage on paved highways, and additional signage on Weld County gravel roads in the area of Pawnee Buttes
- fabrication of interpretive panels and stanchions to be installed at the Pawnee Buttes trailhead when site work proposed by the Forest Service is completed (probably Spring 2008)
- sponsorship of Prairie Rendezvous in Grover.

Mission & Vision Statements

The 1992 Memorandum of Understanding (MOU) states that the Council is “organized to interpret, publicize, and preserve the Pawnee Pioneer Trails Byway,” and that its signers mutually agree to “coordinate with each other on ideas, activities and initiatives along the Pawnee Pioneer Trails to promote its development, use, interpretation and conservation.” The Byway Council drafted the following mission statement:

“Pawnee Pioneer Trails Scenic and Historic Byway Council (PPTSHBC) is a nonprofit organization comprised of representatives of cooperating organizations and interested private citizens subscribing to the Memorandum of Understanding and Organization. PPTSHBC will designate and interpret byway points of interest, and will also promote, maintain, and enhance the byway experience through the development of brochures, printed materials, special events, educational materials, a maintenance plan and the securing of grants and other public and private funds. PPTSHBC may make the byway user aware of nearby recreational and service facilities, but will not promote specific private business enterprises.”

and the following vision statement:

“Realizing northeastern Colorado’s landscape is becoming increasingly impacted by visitors and a growing population, it is a major goal of the Council to mitigate this impact by guiding the visitor to a better understanding and appreciation for the treasure we have in the land, rock, sky and living things that make up the Colorado Piedmont. The Council will work to accomplish this through interpretation, education and preservation efforts. The publicizing of the byway will stress preservation and respect for the rights of private property owners. The Council hopes to be regarded as a friend of the Piedmont and its people and does not intend to create a roadmap for development or a guidebook for exploitation.”

Objectives for Interpretive Media

The output of this plan is a prioritized list of interpretive media that the Byway Council intends to implement in the next decade. The objectives of PPTSHB interpretive media are to:

- Welcome and orient visitors to the facilities, services and recreational/interpretive opportunities in the region of the Byway.
- Promote visitor understanding of, and support for the missions of the Byway Council, Pawnee National Grassland, USDA Forest Service and other signatories to the 1992 Memorandum of Understanding.
- Promote visitor appreciation and understanding of the natural, recreational, scenic and cultural resources of the region, and, by doing so, foster a conservation ethic in visitors that encourages participation in activities that preserve the heritage of the region and appropriate use of Byway resources.
- Create a unique brand identity that distinguishes the Byway from others in Colorado and across the country.
- Stimulate economic development in Byway communities by encouraging and facilitating heritage tourism.
- Educate and inform visitors about safe, appropriate, low-impact use of public lands.
- Foster a conservation ethic based on respect for the land and the wildlife that inhabit it
- Encourage respect for private property.
- Encourage safe travel and recreation.

Methodology

The interpretive themes presented in this plan were crafted through a process that began with a review of themes already suggested in existing planning documents, and themes used in the creation of existing interpretive media. A scoping meeting was held with the Byway Council Board of Directors in New Raymer on September 25, 2007. General concepts for media development were discussed. Following that meeting, a survey was sent to board members requesting specific input on potential themes. Interpretive themes in the first draft of this plan were reviewed by Forest Service personnel and the Byway Council and revised accordingly.

Informal meetings with various stakeholders in Byway communities were also held to get input. The agencies that were represented in scoping meetings included:

- Ault Business Association
- Ault Historical Society
- Ault Town Board/Town Clerk
- Fort Morgan Chamber of Commerce
- Morgan County Economic Development Corporation
- Fort Morgan Museum
- Logan County Commissioners
- Logan County Historical Society
- Logan County Chamber of Commerce
- Logan County Economic Development Corporation
- Overland Trail Museum.

A presentation on scenic byways and heritage tourism was made to the Sterling Historical Society on December 12, 2007, by Colorado State Scenic Byways Coordinator, Sally Pearce, and Exhibit Design Associates Managing Partner, Biff Baird.

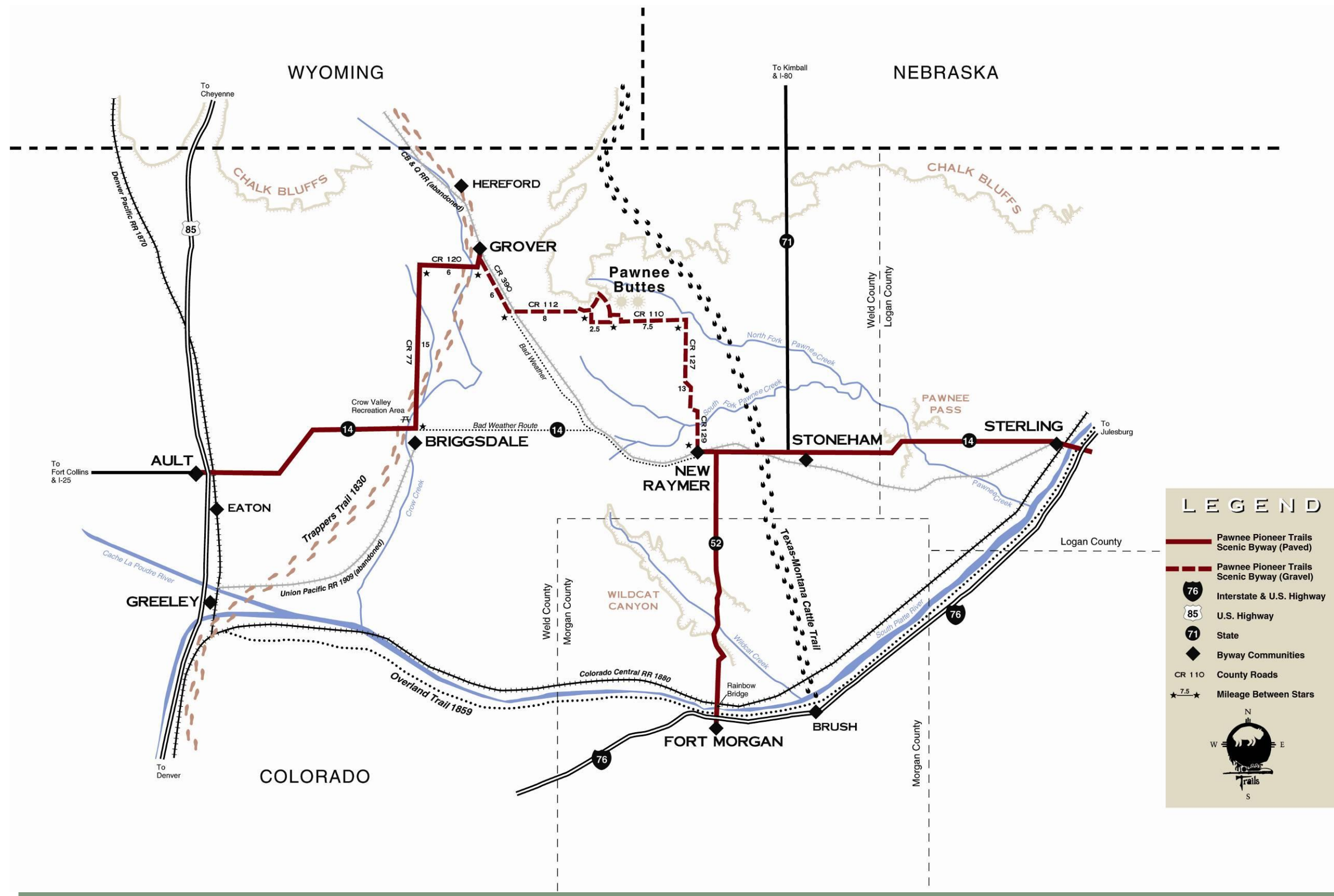
Draft versions of the plan and drawings of concepts for gateway structures were made available for public comment from 1/22/08 to 2/01/08 at the following locations:

- Overland Trail Museum in Sterling
- Fort Morgan Museum
- Ault Town Hall.

The background section of this plan was developed using existing Byway and Forest Service documents, interviews with technical specialists and a literature review (see the Bibliography on p.55).

The audience analysis for this plan was compiled from secondary sources that are described in detail in the audience analysis section that starts on p.15.

Orientation Map and Graphic Panel



Pawnee Pioneer Trails Scenic and Historic Byway

Land of Hope and Heartbreak

Life can be tough on the shortgrass prairie. Summers are hot, winters are cold and you can't count on the rain. It takes a certain kind of stubborn to make a living here. But if you spend some time under the prairie sky, and listen to the quiet, you'll come to know this as a special place. The story of this land includes tales of buffalo herds, trappers and miners following the river, cowboys chasing strays and sodbusters chasing dreams. For all the hope and heartbreak, though, the human story is short: the rhythms of this place are ancient, far older than the people passing through. The USDA Forest Service works together with ranchers and farmers to care for the land within the boundaries of Pawnee National Grassland. You'll find world-class birding, millions of years of geologic history exposed by wind and water, abundant wildlife, small towns with colorful pasts and views that go on forever. Welcome! We hope you enjoy this unique and special part of Colorado.



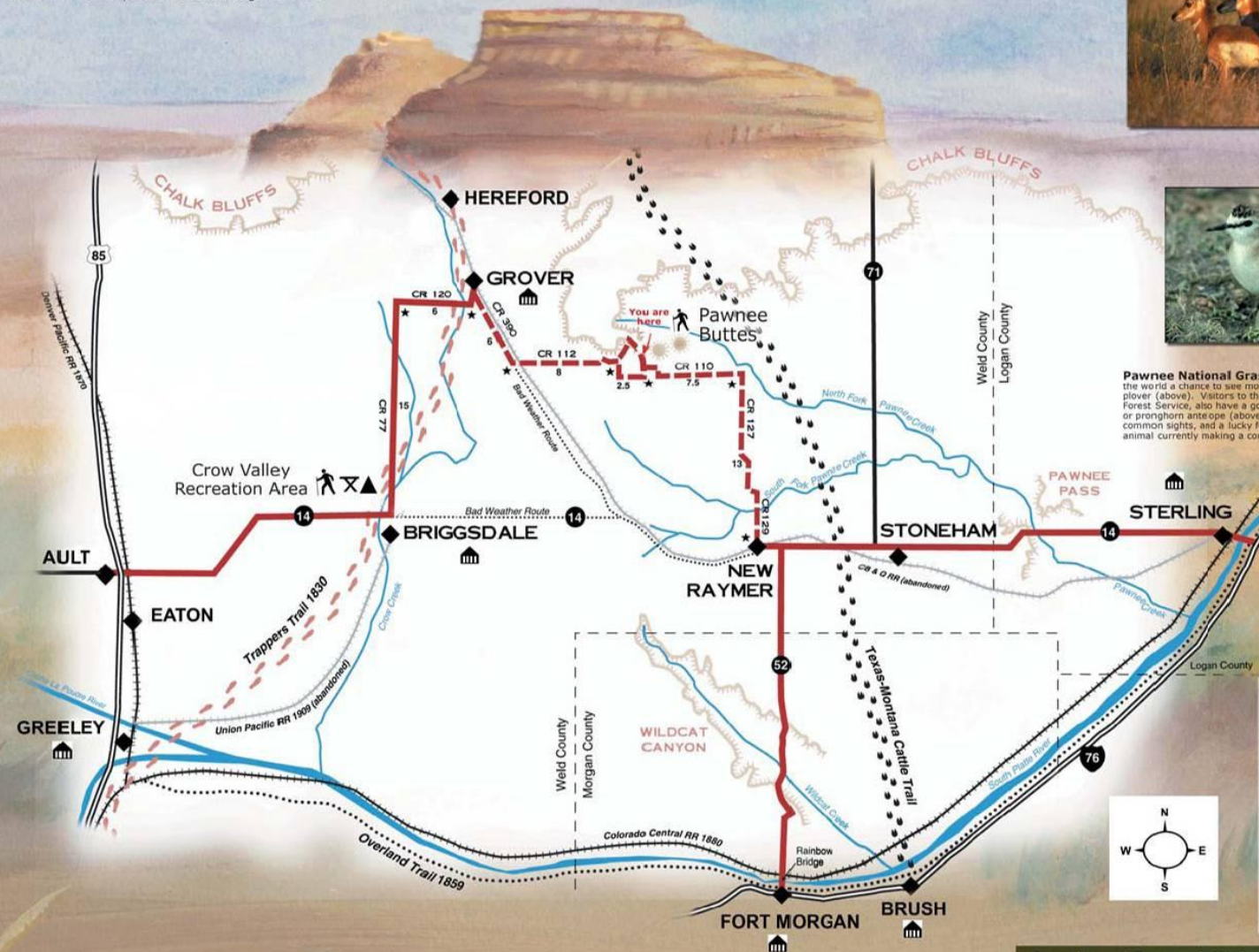
The lands through which the Byway passes have been occupied by humans for more than twelve thousand years. Prehistoric cultures included mammoth hunters who were among the first inhabitants of North America. Later cultures were semi-nomadic hunter-gatherers who lived in camps like the one pictured here. If you find the remains of such a camp, or artifacts such as arrowheads or pottery, please don't disturb the site. When artifacts are removed from their "context" (the layer of earth in which they were found), valuable scientific information is lost.

Agriculture has been a mainstay of the northeastern Colorado economy for generations. Few places are as well-suited for growing sugar beets as the irrigated lowlands of the South Platte River Valley, and it was the prospect of finding work in beet fields or factories that drew many immigrants here in the early 1900's. Land that isn't irrigated is used mainly for grazing cattle and raising wheat and other dryland crops.



During the time of the dinosaurs, this land was inundated beneath a shallow sea. After the Rockies were formed, the waters receded and mountain streams buried the dry seabed beneath deep layers of sediment to create the High Plains. The lower, more rugged lands that lie in the valley of the South Platte River are known as the Colorado Piedmont. Many geologic strata are exposed in its cliffs and buttes. Fossils that have been found include mammoths from comparatively recent times (20,000 years ago), the ancestors of modern horses (25-35 million years ago) and marine reptiles from the ancient sea (more than 65 million years ago).

The photo above shows volunteers working at the "Bones Galore" dig, a site north of New Raymer that was an ancient watering hole. Among the fossils unearthed were those of an "Entelodont." The inset photo shows a canine tooth from one of these giant, pig-like creatures.



Pawnee National Grassland offers birders from around the world a chance to see more than 300 species, including the mountain plover (above). Visitors to the grassland, which is managed by the USDA Forest Service, also have a good chance of spotting a jackrabbit, coyote or pronghorn antelope (above, top). Prairie dogs and mule deer are also common sights, and a lucky few wildlife watchers will see the swift fox, a rare animal currently making a comeback on the high plains.



Wildlife Viewing Tips

For a rewarding trip, and to avoid disturbing wildlife, please follow these tips.

- Plan your trip for early morning or evening to see more animal activity.
- Watch all wildlife from a distance. Use binoculars or a telephoto camera lens.
- View from the road where you can. But be careful, and watch for vehicles.
- Go out of your way to give wildlife the space they need. Avoid approaching nests.
- Go slowly but keep moving. A slow pace will increase your success. Enjoy watching, learn what you can but then move on; your presence is stressful to wildlife.

For Your Safety and Enjoyment, Please...

- Respect private property. Most of the rural land through which the Byway passes is private, and public access is permitted only on land clearly identified as part of the Pawnee National Grassland.
- Stay on numbered, designated routes and observe all posted closures.
- Leave gates as you find them.
- Watch for wildlife and livestock on the road.
- Start your trip with a full tank of gas.
- Fires may be restricted due to weather conditions. Check with the local Forest Service office for current fire regulations.
- Pack out your trash.
- Carry water.
- Change your travel plans if rain or snow is forecast. Roads may become impassable when wet.
- Use sunscreen and wear a hat.
- If you encounter a rattlesnake, do not make any sudden movements. Stay calm and back away slowly.
- Be prepared for winter weather with extra clothing, blankets or sleeping bags, food and water, tire chains, sand and a shovel.
- Collecting fossils or historical artifacts such as arrowheads, farm implements or barnwood on public lands is prohibited by law.

Arapaho and Roosevelt National Forests & Pawnee National Grassland



Funded in part by the Federal Highway Administration

Background

This section provides a brief overview of the natural, cultural, recreational and scenic resources located along the Byway.

Natural Resource Summary

Geography & Land Use

The 125-mile long Byway passes through Weld, Morgan and Logan counties in northeastern Colorado. Gateway communities are Sterling and Fort Morgan on Interstate 76 in the east, and Ault on U.S. 85/Colorado 14 in the west. Other Byway communities include the incorporated rural towns of New Raymer and Grover, and the smaller unincorporated communities of Stoneham and Briggsdale.

The Byway travels through a comparatively low-lying region of the Colorado Piedmont where the South Platte River and its tributaries have eroded away significant amounts of the material common to the uppermost strata of the surrounding High Plains. The topography is complex, being broken by gullies, bluffs, cliffs, hills and features such as lichen-covered sandstone and the dramatic, signature landmark of Pawnee Buttes.

The bulk of the land along the Byway is in agricultural use, with the exception of the urban areas of Fort Morgan and Sterling. The area near Pawnee Buttes is primarily used for cattle ranching, while agricultural land use along the rest of the Byway is divided roughly equally between grazing and cultivation (mostly dryland farming with some irrigated lands). Weld County is the fifth-most productive county in the nation in terms of the annual dollar value of its agricultural output*, mostly livestock. The amount of acreage in vegetable production is slowly but steadily increasing. The main crops are corn, alfalfa, sugar beets, pinto beans, potatoes and onions. Slightly less than half the cropland is irrigated. Agriculture provides more than 13,000 jobs in Weld County.

Extraction of oil and gas is the other primary economic activity on lands along the Byway. The Lilli Oil and Gas Field is located north of New Raymer on County Road 127/129. There is also some surface quarrying of sand and gravels.

Recent land-use developments include the construction of a wind farm just east of Grover. The 274 towers of the facility are visible from the existing overlook/parking lot at Pawnee Buttes. They have a significant impact on the viewshed from other parts of the Byway as well, including Colorado 14 and the gravel-surfaced county roads leading to and from the Grover area and Pawnee Buttes. Development of wind farms along the northern and eastern edges of the Colorado Piedmont will probably continue, and the area can be expected to become one of the major providers of wind-generated power in the nation.

A uranium mine is currently proposed near the town of Nunn by a Canadian mining company. There is some citizen opposition to the mine, based mainly on concerns over the possible contamination of groundwater. At the time this plan was written, the public input process was ongoing, and meetings were being held in both Weld and Larimer counties.

There are 49 commissioned missile silos in northeastern Colorado, and some of the sites are visible from the Byway (though public access is not allowed for obvious security reasons).

Geology & Paleontology

A "piedmont" is an eroded land surface lying at the foot of a mountain or mountain range. The phrase "Colorado Piedmont" is used to refer to the region of the High Plains sculpted by the South Platte River and its tributaries. It is a region where the accumulated material that was deposited

* source: Colorado State University Extension Service

by streams flowing east from the mountains has been eroded away. The landscape of the Colorado Piedmont is lower and more rugged than the surrounding plains.

The oldest exposed geologic strata in the Byway region are formations created from marine deposits during the Cretaceous Period, prior to the uplift of the modern Rockies. During the period from about 90 million years B.P. to 75 million years B.P., the Cretaceous Interior Seaway covered most of the central part of what is now North America. When the Rockies began to form, the sea receded to the east. It left behind a marshy, estuarine environment that was habitat for some of the planet's last dinosaur species until the cataclysmic events of the K-T* extinction about 65 million years B.P.

During the Cenozoic Era (65 million years B.P. to the present), stream-borne sediments accumulated on top of the marine deposits. Late in the era (about 5 million years B.P.), more uplift steepened the eastward gradient of the High Plains in much the same fashion as picking up a table from one side tilts the top surface. The increased cutting power of the streams resulted in the formation of the topography we see today. The South Platte and its tributaries eroded all the way through the Cenozoic Era deposits to expose, in some locations, strata from the Cretaceous.

The most recent geologic forces that shaped the landscape we see today were aeolian (wind-carried) deposits of sand and loess that, in some cases, created dunes several hundred feet thick during last few tens of thousands of years B.P.

Visitors entering the Byway from either Fort Morgan or Sterling are essentially entering the landscape at the oldest point in its geologic story and climbing up through time as they approach the communities in the northern and western reaches of the region.

The Byway region is rich in paleontological resources. The Pawnee Buttes vicinity is considered one of the finest sites for vertebrate fossils in the world, with particularly important finds of mammal remains from the Oligocene and Miocene epochs of the Tertiary Period (from about 38 to 5 million years B.P.).

Fossil finds of global scientific importance include ancestors of the modern horse and camel that have contributed significantly to our knowledge of the evolution of those species. Other important discoveries include a number of species of titanotheres ("thunder beasts") and amphicyonids ("bear dogs") from the Oligocene and enteledonts (giant pig-like animals that paleontologists have nicknamed the "Terminator Pig") from the Miocene.

Additional fossil finds include marine creatures from the Cretaceous Period (when the region was inundated), dinosaur remains from the last days of the Cretaceous after the Interior Seaway receded, and a fairly representative selection of large Pleistocene Ice Age mammals such as mastodons and saber-toothed tigers.

Climate & Plant Communities

The climate in the Byway region is arid (rainfall averages between 8 and 17 inches annually) with hot summers, cold winters and persistent strong winds. (The wind farm site near Grover had the highest documented average annual wind speed and wind power density of ten potential sites that were tested).

The Byway lies in the Central High Plains (also known as the "Great Plains Dry Steppe Province") where the dominant native plant community is shortgrass prairie, a biome that can instill as much oxygen into the atmosphere as a tropical rainforest. Low-growing, sod-forming buffalo grass and the somewhat taller grama grasses (especially blue and side-oats grama) create the foundation of

* "K-T" refers to the temporal boundary between the Cretaceous (K) Period and Tertiary (T) Period.

this plant community by forming a network of fine roots that can extend for several feet underground. More than 400 species of native plants are found on the shortgrass prairie, including a variety of cacti (particularly prickly pear) and hardy shrubs such as fourwing saltbush. One rare plant known to occur on Pawnee National Grassland is the alpine feverfew (a complete listing of sensitive and rare plants on USDA Forest Service lands in Colorado can be found at <http://www.cnhp.colostate.edu/rareplants/usfslst.html>).

Following the drought years of the Dust Bowl and the failure of many farms, some of the abandoned cropland was reclaimed by planting with crested wheatgrass. Though hardy and drought-resistant, it grows taller than native grasses and its introduction may have had a negative effect on wildlife species such as the mountain plover (which relies on flat terrain with good sightlines for defense). Crested wheatgrass does not form the deep, interwoven root system of buffalo grass.

Trees and large shrubs are limited almost entirely to riparian corridors and draws and gullies that offer some protection from the wind and more moisture than the open prairie. Rocky Mountain juniper and some relict limber pines are found in isolated patches, while a typical assemblage of riparian vegetation including Plains cottonwood and several willow species occur along the South Platte River and the ephemeral streams (i.e. Crow Creek) that cross the piedmont. Riparian corridors are vital habitat for wildlife everywhere on the planet, but in this dry, almost-treeless area, their importance is even more profound.

Shortgrass prairie vegetation co-evolved with two factors that are now largely absent from the ecosystem: bison herds and fire. The movement of the herds created a patchwork quilt of grassy habitats in which some areas were trampled down to bare earth, others lightly grazed and others untouched. Periodic prairie fires, which rarely burned hot enough (or long enough) to destroy the root system of native grasses, contributed to this diversity, and native wildlife adapted to its dynamics. Modern range management techniques such as rotational grazing and prescribed burning seek to mimic some of the effects of forces that human activities have mostly eliminated.

Wildlife

A variety of habitats that includes woody draws, open grasslands, creek bottoms with springs, bluffs and cliffs supports a surprising diversity of wildlife, including 50 species of mammals. Mammalian game species include mule and white tail deer, rabbit and pronghorn. Commonly-hunted birds include pheasant and mourning dove.

Pawnee National Grassland is an internationally-known birding destination (it has been named one of the top ten birding sites in the country by the Nature Conservancy). Diverse populations of both resident and migratory avians offer some of the finest birding in North America, with confirmed sightings of nearly 300 species.

Species of concern include the mountain plover, several other grassland birds and the swift fox. Although the plover and swift fox were proposed for the national list of threatened species during the latter part of the 1990's, both were removed from consideration by the U.S. Fish and Wildlife Service during the early years of the new millennium. New data indicated that the threats were not as serious as previously believed, primarily due to improvements in available habitat.

Prairie dog populations are another area of concern. They are a keystone species of the prairie ecosystem because their burrows are used by dozens of other animals (including burrowing owls and rattlesnakes), and because their digging mixes and aerates the soil. The USDA Forest Service mandate to manage habitat with the goal of conserving native species has resulted in some grassland management policies that are opposed by agricultural interests, because prairie dog burrows create the potential for livestock injury and contribute to wind erosion, particularly in drought conditions.

Cultural Resource Summary

Human History

Plentiful artifacts establish the presence of humans in the Byway region for at least 12,000 years prior to the arrival of EuroAmerican settlers in the mid-1800's. Early cultures practiced a nomadic hunter/gatherer subsistence lifestyle based on the availability of seasonal plant food sources and the movement of bison herds.

The Colorado Piedmont was successively occupied by several historic Native American tribes: the Apache were followed by the Comanche and their occasional allies, the Ute, then the Cheyenne, Arapaho and Lakota. The 1851 Treaty of Fort Laramie assigned territories to the various plains tribes. The entire Byway region was assigned to the Cheyenne and Arapaho, but both tribes were removed to new reservations after the Indian Wars of the late 1860's.

The first EuroAmerican settlers raised cattle, and some of the land was plowed for crops, but typically erratic weather patterns that included drought and blizzards caused the failure of many agricultural operations toward the end of the 1800's. Several years of good rains led to an increase in settlement and cultivation in the early 20th Century, as well as the genesis of the sugar beet industry that still makes a major contribution to the regional economy today. But the drought and winds of the Dust Bowl in the 1930's caused many farms and ranches to be abandoned once again.

Most of the land that now constitutes the Pawnee National Grassland was purchased by the federal government during and immediately following the Great Depression through the Bankhead-Jones Act. The work of reclamation, which included planting grass, digging wells, terracing land and building windmills, began during the Great Depression as part of federal public works programs that were intended to create jobs and stimulate rural economies.

One of the major factors that shaped patterns of human migration and settlement in the Byway region during the historic period was transportation. The movement of gold-seekers toward the mountains along the South Platte Trail beginning in 1858 increased awareness of the region and its opportunities. This stimulated EuroAmerican settlement, which signaled the beginning of the end for the bison and the lifestyle of the Native American cultures that depended on the great herds.

The development of railroad lines (and later, highways) also dictated settlement patterns (consider the location of Ault, for instance). Prior to the construction of a rail line connecting Sterling and Cheyenne (the "Prairie Dog Special" ran this route), most travelers skirted the rugged terrain of the Piedmont to the north or south either by following the South Platte River or the gentler terrain of the High Plains north of Chalk Bluffs. But the presence of railroad transportation meant that farm and ranch products could be transported cheaply and efficiently to market, leading many settlers to try their hand at dryland farming in areas away from the river.

It has been the presence (or absence) of water that has the most profound effect on the character of human society in the Byway region. Union Colony's success with irrigated agriculture at Greeley was a model for other settlements along the South Platte Valley. As agricultural development spread into more xeric upland areas, erratic rainfall patterns dictated cycles of boom and bust that were epitomized by the mass exodus of the Dust Bowl years.

Contemporary farmers and ranchers still watch the sky for rain, but their fortunes are not as strictly tied to the vagaries of high plains weather due to the implementation of modern range management and dryland farming techniques.

This very brief overview of regional history is not meant to be an authoritative look at the past, rather an attempt to winnow out the major factors that affected the development of the region's human society in order to inform the development of interpretive themes and storylines. It is

typically only with the passage of time that we are able to get the sort of perspective that allows us to identify the forces, events and trends that have significantly changed the course of history and transformed the character of human society. Will the future of the region, for instance, be wind towers on every horizon, or are they only a temporary phenomenon that will be an amusing footnote in future schoolbooks? We cannot know from our current perspective.

An inventory of cultural resources such as museums, historic sites and so forth can be found in the Existing Interpretive Opportunities section on p.25.

Archaeology

It is generally accepted that humans arrived in North America from Asia via the Bering Land Bridge at least as early as 12,000 years ago, but there is a body of evidence to support an earlier date, and some scientists have postulated the arrival of immigrants from Asia (or even Europe) by sea.

The Paleoindian peoples who crossed the Bering Land Bridge are believed to have migrated southward while the continent was still in the grip of the last Ice Age. Scientists have postulated that an ice-free corridor appeared toward the end of the Pleistocene Epoch (1.6 million years B.P.-10,000 B.P.) that extended from the interior of Alaska along the eastern slope of the Rockies. Southward migration of humans along this corridor is a widely-accepted theory. This route brought nomadic Paleoindian hunters through the Byway region, and solid scientific evidence (including several sites of global significance) establishes the presence of Paleoindians in eastern Colorado at least 11,000 years ago.

Prehistory in eastern Colorado is usually divided into three stages:

- Paleoindian (12,000 years B.P.-7,500 years B.P.)
- Archaic (7,500 B.P.-2,000 B.P.)
- Late Prehistoric (2,000 B.P.-500 B.P.).

During the Paleoindian stage, the megafauna of the Pleistocene Epoch still existed in abundance: mammoth, giant bison, ground sloth and camels were all found in eastern Colorado. Hunting these animals provided food for the humans known as Clovis people. They were named after a site near Clovis, New Mexico (Blackwater Draw) where a significant number of spear points were found. Known as "Clovis points," these artifacts have been found throughout much of North America.

The first Clovis site ever excavated was the Dent site on the South Platte River in eastern Colorado. Discovered several years earlier than Blackwater Draw, the Dent site has yielded the remains of at least fifteen mammoths and several Clovis points: the first scientific evidence that humans hunted mammoths. These two discoveries pushed back the date of the earliest human occupation of the New World from about 4,000 B.P. to nearly 12,000 B.P.

The Folsom culture, also defined by a type of spear point, appeared after the Clovis manifestation, but there appears to have been some overlap in both time and space between Folsom and Clovis peoples. The Lindenmeier site, located at the base of the foothills near the Colorado-Wyoming border, is one of the most significant Folsom sites ever found.

The remaining Paleoindian era includes several different cultural variants, sometimes referred to as the "Plano." These people would be the last to hunt giant bison, the only remaining species of Pleistocene megafauna. Both hunters and hunted would disappear, the Paleoindian culture evolving into the more generalized hunters and foragers of the Archaic stage, and the giant bison into the modern species we know today.

Several significant Plano sites are found in the Byway region, including the Frasca and Nelson sites north of Sterling, and the Frazier and Jurgens sites near Kersey.

Eastern Colorado has been at the forefront of Paleoindian archaeology since the beginning of scientific inquiry into the origins of humans in North America. The sites are among the most important in the New World, and some of the techniques used to excavate and document them have set standards of excellence for archaeological fieldwork.

This extraordinary wealth of Paleoindian archaeological resources is inextricably linked to geography, geology and even modern human history. The South Platte's periodic flooding has eroded its banks to expose artifacts on sandbars and terraces. This geological process is easy to visualize at several points along the Byway. The drought years of the Dust Bowl limited vegetation so that surface finds were more likely, and the loss of topsoil that exposed sandy soils to wind erosion revealed even more.

The transition from the Paleoindian stage to the Archaic stage is marked by the extinction of Pleistocene megafauna and an increasing dependence on hunting small game and gathering/processing plant foods (indicated by artifacts such as the stone mortar and pestle tools used to grind grain and seeds known as a "manos" and "metate"). Basketmaking, a necessary skill for people who relied on gathering large amounts of food from plants, also appeared during the Archaic. Interestingly enough, the skills needed to make stone tools advanced very little during this stage. The stone spear points and other tools recovered from Archaic sites do not reflect as high a degree of craftsmanship as those found in earlier Paleoindian sites.

There are relatively few early Archaic sites on Colorado's eastern plains. From about 7,000 B.P. to 4,500 B.P., the climate became much warmer and drier in an event called the "Altithermal." There is considerable scientific controversy over its extent and severity, and debate over how early Archaic peoples coped with the environmental stress will probably continue for many years. Colorado archaeologist James Benedict has argued (on the basis of several well-studied early-Archaic sites in the high mountains of the Indian Peaks Wilderness and Rocky Mountain National Park) that Archaic peoples from the plains migrated to the mountains. This theory, which is well-supported by evidence but by no means universally accepted, is known as the "Altithermal Mountain Refugium" model.

There is strong evidence that more people (and animals) inhabited the shortgrass prairie from the middle to the end of the Archaic stage. A large number of milling stones from this period were recovered from Colorado sites, and modifications in the size and shape of projectile points are also evident, characterizing the cultural manifestation known as the McKean complex. Several sites in the Byway region (the Wilbur Thomas shelter and the Dipper Gap site) fall into this category.

Extensive investigation into late Archaic sites was conducted by UNC scientists in the 1990's on an 800-acre tract of land in Pawnee National Grassland known as the West Stoneham site. Nearly twenty sites were excavated, mostly temporary camps used for bison hunting. Three camps containing 53 stone circles (apparently built for shelter) were also investigated.

The transition from the Archaic to the Late Prehistoric is marked by the appearance of ceramics (pottery) and the bow-and-arrow. The lifeways of the inhabitants of the Colorado Piedmont were most strongly influenced by the Plains Woodland culture to the east. This period saw the development of extensive trade networks that stretched from the Mississippi River to the Pacific Ocean, so the exchange of ideas and technologies accelerated across the entire region. The movement of people across the Palmer Divide (the ridge separating the drainages of the South Platte and the Arkansas rivers) appears to have been somewhat limited, though, with the vectors of cultural diffusion following the rivers rather than crossing the ridge.

Late Prehistoric cultures in eastern Colorado did not leave evidence of the construction of more permanent dwellings that were common throughout the Midwest during this period. Instead, they tended to rely on stone rings that (probably) were used as base over which to stretch a hide shelter of some sort, and on the improvement of natural shelters such as overhangs. Rituals associated with burial of the dead become more evident during this period, but the extensive reliance on cultivation of corn that occurred elsewhere in Colorado (particularly the southwest part of the state) apparently did not happen in the arid lands of the Piedmont.

Important sites in the Byway region from this period include the Agate Bluff, West Stoneham, Peavy and Donovan sites. The latter was a camp used over a long period of time for processing the carcasses of bison and many other species. Study of the site has shed considerable light on the manner in which marrow was extracted from bones and how fat was rendered for tallow and other uses.

The link between prehistoric Native Americans and the Apaches who occupied eastern Colorado at the beginning of the historic period is the culture known as the Dismal River Aspect. This manifestation was named after the river in Nebraska's sandhills where archaeologists first excavated sites that differed significantly from earlier Plains Woodland sites. The Dismal River Aspect is characterized by the construction of circular pit houses with wooden support posts. One such dwelling (Cedar Point Village) has been excavated in eastern Colorado just south of the Byway region, and Dismal River potsherds were found at the West Stoneham site. Evidence is mounting that the Dismal River Aspect is a culture that represents the immediate ancestors of historic-era Apaches, but there is too little evidence to support a definitive conclusion.

Contact between EuroAmericans and American Indians was infrequent on Colorado's eastern plains until the late 1700's and early 1800's, when trappers began traveling along the South Platte River to reach the Rockies. The trickle of immigrants became a flood after gold was discovered at the confluence of Chicago Creek and Clear Creek (near present-day Idaho Springs) in 1859, but by that time the Arapaho and Cheyenne were gone.

Up to about 1700, western Colorado was dominated almost completely by the Utes and eastern Colorado was mainly the province of the Apache. But after the Utes acquired horses from Spanish traders (probably in the late 1600's, perhaps earlier), they began to range into the plains on hunting forays. At the same time, Comanches with newly-acquired horses ranged into the Piedmont from the north. The Apache were pressured into a long southward migration that would eventually take them into New Mexico. Colorado's eastern plains were dominated by the Comanche for a relatively short period of time as Arapaho and Cheyenne began to move into the area from the region of Wyoming and the Dakotas. Comanche were limited to the area south of the Arkansas River by the time Colonel Stephen Long led his expedition along the South Platte in 1820, and eastern Colorado was almost entirely the domain of the Cheyenne and Arapaho by about 1830.

Native cultures were almost entirely displaced by EuroAmerican settlers by the late 1800's.

Archeological inquiry in the Byway region continues, and, with the passing of time since the Dust Bowl years of the 1930's, one new area of study has been identifying and excavating the remains of homes that were abandoned in the years of withering drought.

Audience Analysis

The available secondary data on visitors to the Byway, Pawnee National Grassland and the northeast Colorado travel region is limited, but there is considerable data regarding travel, tourism and recreation on both the state and national levels. Some qualified inferences regarding the audience for interpretive media on the Byway can be made from the available datasets, but readers are cautioned that direct extrapolation from national or state-level data to Byway travelers almost certainly involves some degree of error (if for no other reason than the fact that the landscape and recreational opportunities of the Byway differ significantly from those in the mountainous and urban regions of Colorado that are the focus of most of the state's tourism).

This section looks at trends in tourism and recreation on the national and state levels to gain an understanding of the audience for interpretive media along the Byway, and to identify strategies for implementation that may take advantage of recent trends.

The data tables for this section can be found in Appendix C.

National Tourism & Recreation Trends

Profile of the American Traveler

Leisure travel accounts for most (81%) of domestic travel in the United States. Leisure travel volume has shown a steady increase for more than a decade (+12.1% from 1994-2004), while business travel has begun to grow in volume (as of 2004) after a ten-year decline of 11.2% from 1994-2004. Important attributes of the domestic travel market include:

- Most domestic trips (75%) are taken by car, truck or RV.
- Overnight trips account for 77% of all trips, and shorter trips of one-two nights are more popular than longer trips.
- Summer is the most popular season for travel.
- Children are included on about one-quarter (26%) of all trips.
- Trips are most likely to be taken to destinations in the traveler's home state (42%).

The "average" traveling household has an annual income of \$70,300 and is headed by a person 46 years old. Most U.S. travelers (70%) are married, 39% have a college degree, 67% are employed at least part-time and 36% have children at home. Most trips are taken by households that own their own home (74%), have a personal computer (86%) and a cellular phone (77%).

Heritage Tourism

One of the most important trends in domestic travel is the continuing popularity and steady growth (+13% from 1996-2001) of heritage tourism. The National Trust for Historic Preservation defines heritage tourism as "traveling to experience the places, artifacts and activities that authentically represent the stories and people of the past and present."

Heritage tourists (also called historical/cultural tourists and recreational learners) constitute an enormous market: most adults (81%) who took at least one trip of more than fifty miles from their home in the last year (2003 data) included at least one historical/cultural activity in their itinerary. This represents a market of more than half the entire adult population in the nation (>100 million people). International travelers swell this number even more: 1 in 3 report visiting a cultural or historical attraction during their stay in the U.S.

Growth in heritage tourism reflects an increasing public interest in learning about both culture and nature: about 60% of Americans visit a nature center, nature trail or zoo every year, and there has been a strong recent up-trend in participation in wildlife-viewing as well.

Heritage tourists tend to be older, better educated and more affluent than other tourists. They spend more, participate in more activities and stay longer in an area than any other segment of the domestic travel market. This has not gone unnoticed: more than half of U.S. states established formal cultural heritage tourism programs in the decade from 1992-2002. Theme

parks such as Disney California and even Las Vegas casinos are working to tap this market by building replicas of major heritage sites to attract visitors.

Heritage tourism will probably continue to grow. As of 2004, 40% of all historical/cultural trips were taken by Baby Boomers. It is reasonable to expect that proportion to increase as more Baby Boomers retire.

The most common information sources used by heritage travelers are the internet and word-of-mouth from friends, relatives and coworkers.

Colorado and the Rocky Mountain region are not high on the list of popular destination for heritage travel. The South Atlantic, Pacific and East North Central regions of the county are more likely destinations.

Activity Participation

While participation in heritage-type activities did not show an increase from 2003-04 (Table 5), it increased 45% from 1996 to 2003.

Several other trends on the national level are worthy of note: a continuing strong participation level in outdoor recreation of all types, the emergence of new types of recreational activities and rapid growth in certain established activities.

Over 97% of Americans take part in some sort of outdoor recreation. Walking for pleasure, birding/wildlife-viewing, hiking and off-road vehicle use are among the fastest-growing (Table 6).

Rates of participation in some activities have increased dramatically, and new sports are appearing. Snowboarding, OHV-riding and mountain-biking, for instance, placed negligible demands on public land only a few decades ago, but regulating these activities and their impacts is a major challenge for today's land managers. Activities such as geo-caching have made their appearance only in the last few years as new technologies have become available and affordable. Among traditional activities, hunting has shown the slowest rate of increase since 1960. The fastest-growing activities are simple, inexpensive and nature-related (Table 7).

The significant national increase in off-road vehicle use (the number of OHV registrations increased 223%, or 18%/annum, from 1995-2003) is worthy of note in the context of the Byway, since there are several opportunities for off-roading (on both public and private land) along the route. OHV-riding is an activity with high potential for resource damage. Unregulated OHV-riding is considered one of the four most significant threats to the overall ecological health of Forest Service lands nationwide (the other three are wildfire, habitat fragmentation and invasive plants). Many travelers have difficulty differentiating between public and private land on the Pawnee National Grassland, creating the potential for unintentional trespassing situations in addition to environmental degradation.

Internet Use Among Travelers

The market segment of American adults who use the internet is enormous, estimated to be at least 120 million people. This segment experienced extremely rapid growth in the late 1990's, but growth in the new millennium appears to have slowed or even reached a plateau. Use of the internet for travel planning, though, is still growing rapidly, both in terms of real numbers and as a proportion of total travelers. A majority (78%) of travelers with internet access get their travel and destination information online, which translates to a market segment of 79 million people (37% of the adult population of the nation).

The most frequently-used types of websites are travel agency websites such as Expedia and Priceline, which are used by 67% of online travel planners, search engines (64%), airline and hotel websites (54%) and destination websites (46%).

The most frequently-purchased items are airline tickets and lodging, but steady increases are occurring in the purchase of tickets for cultural events, theme/amusement parks, travel packages, sporting events and tickets to museums and festivals.

Roughly half of online travel planners are Baby Boomers with children at home. Most (64%) are married, 42% are college graduates and 67% are employed full-time (average household income was \$73,000 in 2004).

The most popular and effective online marketing techniques (as measured by whether or not a consumer response is triggered) are un-sponsored search engine results, e-mails from friends or co-workers, links on websites to other destinations of interest and "opt-in" e-mails and/or newsletters.

Tourism and Recreation Trends in Colorado

Tourism is Colorado's second-largest industry (behind manufacturing; agriculture is third). It generates spending of more than \$7 billion annually, and contributes about \$550 million in tax dollars to state and local governments. Colorado tourism is intimately tied to the state's image as an outstanding destination for nature-based recreation, and 94% of its citizens engage in some sort of outdoor recreation. Support for land and water conservation and preservation of open space runs deep in the Centennial State:

"Coloradans place tremendous value on their open spaces, farms and ranches. These undeveloped lands are the places where wildlife lives, vegetation flourishes, water and air are clean, and vistas are beautiful. Open space is essential to the state's quality of life. It is, in fact, one of the principal reasons Coloradans decide to make this place their home."

-former Republican Governor, Bill Owens

Colorado's population grew 37% from 1990 to 2002. By 2025 it will have grown another 47% (to 6.65 million) according to the State Demographer. A rapidly-growing population that will place ever-greater pressure on recreational resources is perhaps the most significant statewide trend, as well as being the most significant challenge facing managers of public lands and transportation providers.

New Millennium Tourism Downturn

Outdoor recreation resources in Colorado were stressed early in the new millennium due to several factors, and the tourism economy suffered accordingly. Ongoing drought of several years duration not only severely impacted farmers and ranchers (who took another blow from the powerful blizzards of 2006-07), but also compromised the quality of the visitor experience at water-based resources. Businesses that rely on follow-on revenues from activities like rafting were significantly impacted in a tourism economy already hit by the nationwide downturn in travel after 9/11. Publicity about wildfires, including negative comments from state officials (Governor Owens' infamous "The whole state is on fire" comment) during the disastrous wildfire season of 2002 made the situation worse.

In 2002, whitewater rafting revenues plummeted (-50%) and statewide lodging occupancy rates dropped (-3%), as did visits to national parks and monuments (-5%), camping reservations at state parks (-20%) and emplanements at Denver International Airport (-8%).

Issues that have persisted to the present include infestations of mountain pine beetles that have degraded the visual quality of many forests across the state. Fishing and hunting have been impacted over concern about whirling disease in trout population and chronic wasting disease in deer and elk herds.

Nonetheless, overall marketable trips[†] saw a modest increase in Colorado in the year following 9/11 (one of only four states in which this number went up), and the state's tourism industry has largely recovered from the setbacks experienced early this century. This might be viewed as an affirmation of the state's image strength, which is based on outdoor activities, and which exceeds the U.S. norm on these dimensions:

- Mountain/wilderness activities, such as mountain climbing, biking, hiking, camping, canoeing and rafting, etc.
- Suitable for kids/families, and safe
- Amazing scenery
- Once-in-a-lifetime adventure
- Interesting sightseeing, including towns, landmarks, etc.

In 2006, the number of overnight visitors to Colorado increased (+4%) for the third year in a row, and the state's share of nationwide marketable travel rose as well (2.1% to 2.35%, the highest it has been since 1999). This gain is largely due to increases in ski trips and outdoor trips. City trips, not historically considered an important part of the Colorado marketing mix, also increased. Outdoor trips (trips taken for the primary purpose of engaging in outdoor recreation) are now the single largest segment of the state's tourism market: Colorado is ninth in the nation for this type of travel with a 3.7% market share (and first, not surprisingly, in ski trips).

Profile of Colorado Visitors

One-third of Colorado visitors travel less than 500 miles and two-thirds (66%) travel more than 500 miles. This far exceeds the national average (only 37% of visitors nationwide travel more than 500 miles to reach a destination), and can be interpreted to mean that visitors are willing to expend more time and money to visit Colorado than many other places. This is also significant in that longer trips require more planning. Colorado vacationers start planning earlier, use a greater variety of information sources and book more parts of a trip in advance than U.S. vacationers in general.

The "average" Colorado traveler is 44.8 years old, married (63%), lives in a household of two persons (37%) with no children under age 18 (69%), makes more than \$75,000/year (41%) and is a college graduate (34%) employed full-time (59%) in a white-collar job (78%).

Travelers' main purpose for Colorado pleasure trips significantly exceeds the national norm for outdoor activities and skiing, while being well below the national norm for casino gambling (Table 8).

Most (66%) overnight vacationers in Colorado come from the West, with 31% originating from within Colorado. This number is particularly significant when considered in light of the fact that these data do not include day-trips originating within Colorado. There are no reliable statistics on the economic contribution of that market segment, but logic would suggest that it is considerable, perhaps even greater than that made by overnight travelers (given Coloradans' 94% rate of participation in outdoor recreation and the wealth of opportunities available).

More overnight leisure travelers originate from Denver and Colorado Springs/Pueblo than any other urban area (Los Angeles, Albuquerque/Santa Fe, Phoenix, Chicago, Dallas/Fort Worth and Houston are the other key urban markets).

Texas and California are the leading state markets (other than Colorado itself) for Colorado vacations, followed by the neighboring states of Arizona, Wyoming, Kansas and New Mexico. See Table 9 for a detailed look at the types of places people visited and things they experienced on Colorado trips.

[†] A "marketable trip" is a trip in which the choice of destination can be influenced, as opposed to a "VFR" (visiting friends and relatives) trip where the choice of destination is not subject to any significant degree to marketing influence.

Colorado's overnight visitors engaged in significantly more mountain-based activities than the national norm, as would be expected (Table 10).

Most Colorado visitors are very satisfied with their experience: the vast majority of 2006 tourists "agreed strongly" with the statement that Colorado is a place they would "really enjoy visiting again." Scores given to Colorado on most of more than eighty dimensions used to evaluate satisfaction exceeded the national norm, indicating an extremely high level of satisfaction.

The greatest differences between scores given to Colorado and the national norm occur on the dimensions that would reasonably be expected:

- spectacular scenery
- great for mountain climbing, river rafting, hiking, hunting, off-road biking and other outdoor recreational activities

Another set of dimensions on which the state outperformed national averages is often used by researchers to measure those factors that are important when people consider returning:

- suitability for both adults and children
- providing excitement
- a sense of relaxation and safety
- uniqueness of the scenery, customs and people
- sightseeing variety
- popularity
- quality of accommodations

There were only a few areas in which visitors rated Colorado less than the national average:

- perceived affordability, including the cost of getting to Colorado as well as the price of food and lodging
- the feeling that the local cuisine is not very unique
- a lack of places to swim.

What motivates outdoor recreationists in Colorado, why do they want to get out into natural areas? The dominant theme that was discovered in a survey conducted by Colorado State Parks in 2003 was to escape from daily routines, to get away from it all (Table 11).

Data collected from state park visitors allows a comparison of the motivations of locals, residents of the Northeast Region and tourists. There are significant differences between residents and tourists on the social and unwind/relax dimensions. This suggests that tourists may be somewhat more motivated by the desire to wind down, while locals tend to use nearby recreation resources for the purpose of enjoying time with the important people in their lives to a somewhat greater degree (Table 12).

The leading information source used by overnight pleasure travelers in Colorado for trip-planning is personal experience, which is virtually tied with use of the internet for the most popular source. Word-of-mouth continues to be significant (Table 13).

Newspapers, magazines, television and radio play a far more significant role in planning leisure activities by Colorado State Park users (Table 14) than they do in trip-planning by Colorado overnight pleasure travelers. One obvious explanation for this disparity is that in-state users have relatively easy access to local print and electronic media. Visitors from out-of-state do not have similarly easy access to local newspapers or radio/television broadcasts (but it is important to remember that 31% of overnight pleasure trips in Colorado are taken by Colorado residents).

Heritage Tourism in Colorado

As previously noted, Colorado tourism suffered a “perfect storm” of sorts early in the new millennium due to factors that included the 9/11 terrorist attacks, bad publicity and an unprecedented combination of environmental stresses including drought, disease and wildfire. Recent data from 2006 suggest that Colorado tourism overall has made a strong recovery in the period 2003-2006. Since heritage tourism represents such a major proportion of overall travel, the assumption can reasonably be made that heritage tourism in the state has participated in that recovery.

The number of heritage trips taken nationwide increased 45% in the period 1996-2003, representing a staggering total of 376 million trips, of which 57% could be considered marketable. Although heritage tourism within Colorado has equally impressive raw numbers (37% of total pleasure trips and 39% of all marketable trips for a total of more than 8 million trips), Colorado heritage tourism is only just now recovering to pre-2000 levels. About ten million trips were taken annually in the period just before the turn of the century, but there were only 7 million in 2003 (which can be considered the “bottoming-out” year).

The proportion of Colorado visitors who experienced something heritage-related in 2006 was 57%, which represents a core segment of 8.6 million travelers who defined themselves as being “interested in cultural heritage,” with an additional 4.8 million who engaged in cultural heritage activities “as encountered.” These tourists spent \$3.4 billion, about 44% of all leisure travel expenditures.

Compared to the average Colorado tourist, cultural heritage visitors in the state:

- spend more money (\$392/person total and \$67/person for recreation, sightseeing and attractions versus \$326/person and \$56, respectively for an average tourist)
- stay longer (5.6 nights versus 4.7)
- are older (47 years versus 45)
- are slightly better educated. more affluent and more likely to work a white-collar job
- tend to come more often from big cities
- tend to come more often from out-of-state
- plan their trips further in advance
- are more likely to shop, eat out and go to the theaters, concerts and nightclubs
- are likely to take part in outdoor recreation with the exception of skiing
- more likely to travel in the spring and summer months
- are more likely to use word-of-mouth information sources for trip-planning, as well as formal sources of information such as the internet, books, visitors’ bureaus, auto clubs and magazines
- are more likely to visit regions of the state other than the Denver metro area.

Although heritage visitors give Colorado high marks on many aspects of their experience, the state does not have an overall strong image as a heritage destination. Visitors particularly appreciate:

- unspoiled natural scenery
- protecting the natural environment
- historic towns and interesting festivals/events (both of which are top priorities for return visits)
- scenic and historic railroads
- being noted for history
- historic areas and their preservation,

while being only moderately positive about their experiences relative to:

- scenic ranches/farmland
- traditional artisans and other unique shopping opportunities
- arts/cultural communities and unique cultural sites
- museums

- the availability and quantity of live music, theatre and the arts in general
- having unique customs and traditions.

The lowest marks about heritage travelers' Colorado experience were given for the uniqueness of the state's cuisine.

Interestingly enough, the state's relatively low image strength as a destination for heritage travelers is apparently not based on the reality of the visitor experience. Recent visitors rate the state's actual product far higher than those who have never visited (Table 15).

Tourism and Recreation Trends in Northeast Colorado

The Byway can be viewed as something of a bridge that connects Colorado's most populous and frequently-visited region (the Front Range, including Weld County) and one of its least populous and least-visited regions, the ten-county Northeast region.

The economy of northeastern Colorado is dominated by agriculture, which provides more than 16,000 jobs. Tourism is not a major source of employment, creating only about 1,200 jobs.

The Northeast is an important gateway to Colorado because of the volume of westbound travelers entering the state via I-76 (75% of Colorado visitors enter the state by car, RV, van or truck). It can also be considered something of an "outback" destination that offers a Colorado experience unlike any other, with significant appeal to the Front Range market because of the opportunity to escape crowds and traffic congestion, breathe clean air and see the night sky.

Top attractions in Northeast Colorado are:

- Sterling (1% of all Colorado travelers visited Sterling in 2006)
- Fort Morgan (1%)
- Burlington (1%)
- Kit Carson County Carousel (1%)
- Julesburg (<1%)
- Pawnee National Grassland (<1%).

The region's slice of the state's tourism pie is clearly very small. The proportion of overnight pleasure travelers who visited the Northeast Region in 2006 was 4% of the state total, and the number who stayed overnight was 1%. Both of these numbers represent declines from 2005, when the proportions were 6% and 4%, respectively. But these percentages are small slices of a very large pie. Colorado set an all-time record with 26.9 million overnight visitors in 2006, so approximately 269,000 people stayed overnight in the Northeast region in 2006. A 10% increase in penetration of the Colorado overnight market would represent more than 25,000 additional visitors annually.

The best picture of Byway travelers and their activity preferences that can be drawn at this time relies mainly on two sources: visitor logs from the Overland Trail Museum in Sterling, and information request logs from the headquarters of Pawnee National Grassland in Greeley. This is at best a foggy and incomplete portrait: signing the log at the museum is voluntary (although museum staff asks visitors to sign in when they pay their admission fee) and the grassland logs tally requests for information, not actual participation. A few qualified inferences are possible, though, when combined with anecdotal evidence. This comparative lack of data suggest that a study of Byway travelers to get a better sense of demographics, motivations, activity preferences and sources of information might be a worthwhile focus of a grant application.

Recreational activities on Pawnee National Grassland tend to be highly seasonal. Birding peaks in spring and fall to coincide with migrations, antelope hunting in September and OHV-riding November to April (due to seasonal closures of the Main Draw OHV area from April-October to

prevent disturbance of nesting birds). OHV use is prohibited on the grassland except in the Main Draw area.

There appears to be a downward trend in horseback riding in the available data, but more research would be needed to make any sort of solid assertion. There is a spike in requests regarding wildflowers during the first half of 2007 that can probably be attributed to a high level of interest following the huge snow accumulations of the winter of 2007-07 that led to an extraordinary abundance of spring wildflowers. A continuing steady flow of inquiries regarding Golden Age passports suggests that retiring Baby Boomers and other persons of age 62 and older are a significant user group.

The best data available regarding the states of origin of Byway travelers (Table 17) probably comes from the log of travelers who sign in at the Overland Trail Museum in Sterling, which is located just off I-76 across the road from the Welcome Center. The Welcome Center has a visitor log, but staff does not request all visitors to sign in, and the data are not tabulated.

Museum visitors in the reporting period (from October 2006 to September 2007) were overwhelmingly from in-state. This might be taken to suggest that the proportion of in-state travelers at the eastern end of the Byway may be greater than that reported statewide (31% of overnight trips in the state were taken by Coloradans in 2006), but any implication made from just one year of data (which is all that is currently available) should be approached with caution.

Data collected from users of state parks can help clarify the picture of preferred recreational activities in the Northeast Region somewhat. The available data (Table 18), though, were collected from surveys of park users, so they reflect a bias toward people who have already made the choice to visit a park (who could reasonably be inferred to be more inclined to outdoor recreational activities than the general population).

There is a comparative lack of interest in OHV activities among state park users relative to inquiries at the Pawnee National Grassland office in Greeley. This can almost certainly be attributed to a lack of opportunities at state parks in the Northeast Region. OHV-riding is permitted only on a limited seasonal basis at Bonny State Park (far from the Byway) and at Jackson Lake State Park (also seasonally-limited, usually in the fall, depending on water levels). OHV use is not permitted at North Sterling Reservoir, which is the only other state park unit in the Northeast Region.

While solid demographic data is not available from secondary sources for the Byway traveler population, it can reasonably be inferred that the preferred outdoor recreational activities of Northeast Colorado travelers and Pawnee National Grassland users include:

- hiking
- camping
- hunting and fishing (fishing opportunities are virtually non-existent on the grassland)
- viewing and photographing wildlife, birding and viewing flowers and scenery
- picnicking
- horseback riding
- OHV riding
- target shooting

Water-based activities (both motorized and non-motorized boating as well as swimming) have a relatively high level of interest for state park users in the Northeast Region. They are not included in the above list, though, because water-based opportunities at, for instance, Jackson Lake State Park or North Sterling Reservoir are located well away from the Byway route.

Strategic Implications of Byway Audience Analysis

Based on available secondary data about the nature of the audience for interpretive media on the Byway, the following recommendations can be used to inform the process of prioritizing grant applications.

Target Heritage Travelers

- huge market (>16 million in Colorado in 2006)
- 21% of all Colorado tourists visited a scenic byway in 2006 (>5 million in 2006)
- heritage travelers spend more, stay longer, do more different types of activities
- high potential for growth and stimulating repeat visitation; travelers who have been to Colorado rate its quality as a heritage destination far higher than those who have never been to the state

Target Travelers on I-76 and Residents of Denver Metro Area and Northern Front Range

- recent downtrend in Colorado heritage travel (1996-2003) is considered "very reversible" by tourism experts if numbers of in-state overnight travelers can be increased
- large market, easy to reach
- trend toward shorter trips suggests focus on in-state market

Use the Internet

- Colorado visitors travel much farther to reach their destination than the national average; website would expand the geographical range of outreach
- heritage travelers plan further in advance and are more likely to use the internet for planning
- Byway-related media can be made available for pre-trip download (i.e. files that can be printed, podcasts)
- possibility of creating revenue stream through paid downloads of electronic content
- links on other tourism sites create high potential to influence trip-planning decisions

Build Eye-Catching Kiosks in Gateway Communities

- despite extensive use of the internet and other sources for pre-trip planning among heritage travelers, about 1 in 3 decisions regarding visiting a heritage are made enroute
- community support appears to be generally positive
- existing Byway kiosks have same appearance as others throughout Colorado; no differentiation
- existing Byway kiosks are not highly-visible
- NVUM (National Visitor Use Monitoring) surveys conducted by Arapaho-Roosevelt National Forest and Pawnee National Grassland indicate that "adequacy of signage" and "availability of information on recreation" were both important to Forest/Grassland users, but those users who were surveyed rated both dimensions only marginally satisfactory

Emphasize Opportunities to "Get Away From It All"

- motivations of outdoor recreationists in Colorado are overwhelmingly focused on unwinding/escaping (as compared to socializing, self-fulfillment and thrill-seeking)
- Northeastern Colorado has very little traffic congestion, clean air, low population density

Emphasize Simple, Inexpensive, Nature-Based Activities

- greatest growth in outdoor activities nationwide has been in these areas
- as the population ages, less-strenuous activities such as birding will probably increase compared to more-strenuous activities such as skiing and mountain-biking

Emphasize Festivals and Special Events

- travelers who attend these sorts of activities have high potential to become repeat visitors
- takes advantage of existing resources and encourages motorists to stop in smaller Byway communities

Create Awareness of Colorado 14 as Alternate Route to Rocky Mountain National Park

- Rocky Mountain National Park and Estes Park are two of the top ten destinations in Colorado, drawing more than 3 million visitors annually
- most visitors (75%) enter Colorado by private motor vehicle; a significant proportion of westbound travelers on I-76 probably have RMNP as their ultimate destination and might be stimulated to bypass Denver Metro by using Colorado 14 as their route to the mountains

Segmentation of the Byway Audience

The purpose of audience segmentation is communication efficiency. In a heterogeneous and highly-diverse society, there is simply no such thing as “the general public.” Interpretive, educational and informational messages should be crafted with the needs, expectations and recreational preferences of a specific audience segment (or segments) in mind.

The Byway audience (or any audience, anywhere, for that matter) can be divided into four categories:

- 1) local, special-interest customers
- 2) local, general-interest customers
- 3) non-local, special-interest customers
- 4) non-local, general-interest customers.

Special-interest customers are those whose activities require special equipment (i.e. skis, binoculars, GPS locators, etc.), skills or training.

The recommended segmentation of the Byway audience is in Table 15.

Table 1: Byway Audience Segmentation

Local, General-Interest Customers	Non-Local, General-Interest Customers
students (ages 5-9) students (ages 9-13) students (ages 13-18) motorists on I-76 motorists in Ault, Sterling, Fort Morgan heritage travelers	Metro Denver and Northern Front Range residents motorists on I-76 motorists in Ault, Sterling, Fort Morgan heritage travelers
Local, Special-Interest Customers	Non-Local, Special-Interest Customers
birders OHV-users campers horseback riders hunters photographers mountain bikers	birders OHV-users campers hunters photographers mountain bikers

Existing Interpretive Opportunities

The matrix below presents a summary list of existing interpretive opportunities on the Byway. Readers will note several references to “Colorado kiosks.” This phrase refers to the standard roadside kiosks developed in a statewide project funded primarily by the Colorado State Historical Society in the 1990’s. Kiosks of similar design can be found on highways throughout the state, including Byway gateway cities and other locations along the route. While the stone/metal kiosk structures are in good condition, the signs themselves have not held up well and most are in need of replacement. Please see the photos that follow this matrix for several examples.

Table 2: Existing Interpretive Opportunities

Site	Existing Interpretive Media & Opportunities	Interpretive Themes & Topics	Special Events, Festivals & Programs	Safety & Site Development Issues	Notes & Comments
Byway-wide, Off-Site	Byway brochure	*overview of Byway resources and history *visitor orientation/information	n/a	n/a	The existing brochure probably may not be updated for several years.
Ault	*Colorado kiosk in Wayside Memorial Park on U.S. 85 north of intersection w/ Colorado 14 *Memorial plaque honoring Joe Martinez at Liberty Park *proposed museum	*agricultural history of Weld County; irrigation *visitor orientation/information	*Fall Festival (August) *International Food Festival (October)	*Existing kiosk next to caboose is not highly-visible and often obscured by semis parked in the rest area; community wishes to maintain amenities for truckers. *Town of Ault has lease on land at U.S. 85/Colorado 14 intersection suitable for gateway kiosk. *Re-location of the headquarters of Pawnee National Grassland to a site on Colorado 14 in Ault is under consideration. Should this occur, it will significantly effect the discussion of a possible gateway kiosk.	*A site has been acquired for an historical museum and a non-profit corporation has been established. *Moving existing kiosk to Liberty Park is possibility. *There is community support for enhancement/improvement of the Martinez memorial. *Caboose is maintained by Ault Business Association; there is support enhancement/improvement of caboose.
Briggsdale	*Briggsdale Heritage House (old schoolhouse converted to museum)	Heritage House is repository for historic photo albums and documents; open only by appt.	*craft sale in November *school reunion in nearby Keota (August) is typically well-attended	*Heritage House may be good candidate for exterior media due to (lack of) access situation. *Historic Christian Church (circa 1912) may be another site for exterior media.	
Crow Valley	*orientation kiosk w/ large-format Byway panel (8x4’) and map *Lee & Dorothy Rhoads Farm Museum w/ antique farm implements & interpretive panels *trailhead kiosk at BirdWalk Trail	*overview of Byway resources and history *Dust Bowl *birds of Pawnee National Grassland *visitor orientation/information	interpretive programs on Saturday night during camping season (late spring-early fall)	*One of two primary recreation nodes on Pawnee National Grassland *Amenities include 10 individual campsites and 4 group sites; pit toilets, ball diamond, cook shelter, horseshoe pits, small amphitheater	*Pawnee National Grassland is the primary provider of outdoor recreation opportunities in the Byway region and an important partner for media development and installation. *Panels that interpret the use of the farm implements on display are being developed.
Grover	*Colorado kiosk in park on Main Street *Grover Depot Museum*	*history of ranching in the region *wildlife and history of Pawnee National Grassland *visitor orientation/information *local history	Earl Anderson Memorial Rodeo (Father’s Day weekend in June)	*Limited hours at the museum suggest that an exterior kiosk at the museum site might be appropriate.	*Opera house/library on Main is important historic structure. *Views to the east of town are now dominated by wind towers; the Cedar Creek Wind Energy Project is a joint venture between Babcock & Brown and BP Alternative Energy; these firms may be funding partners for interpretation of the wind farm.
Pawnee Buttes	*existing signage at Pawnee Buttes Overlook is limited mainly to information/directional materials and is in poor condition *two Byway-funded interpretive panels are in storage, awaiting relocation of the trailhead before installation	*raptors *new signs will interpret shortgrass prairie ecology, geology and paleontology	???	*One of two primary recreation nodes on Pawnee National Grassland and major Byway attraction/feature *The overlook on top of the bluff at Pawnee Buttes is slated for closure; visitor amenities (i.e. toilets) and parking will be relocated at a lower site.	*Safety is an important concern at Pawnee Buttes, which is in a remote location where emergency services are not quickly available. Both safety issues and interpretive goals could be addressed through the development of a native stone line camp that would not only be a teaching tool but also provide emergency shelter.

New Raymer	*Colorado kiosk on frontage road	*Native American culture *railroading *EuroAmerican settlement-era history *Dust Bowl *visitor orientation/information	*Northeast Weld County Fair (July) *Feedlot Rodeo (August)	*Signs advertising special events compete for attention with the interpretive kiosk from some angles.	
Fort Morgan	*Colorado kiosk (?) *Fort Morgan Museum* *Rainbow Bridge *Sherman Street Historic District	*local and regional history *period architecture	*Old-Timers Baseball Game (May) *Tin Man Triathlon (June) *Glenn Miller Swingfest (June) *Festival in the Park (July) *Morgan County Fair (July-August) *Fall Harvest Car Show (September) *National Alpaca Farm Days (September) *walking tours of the Sherman Street Historic District and the local cemetery are available on request from the Fort Morgan Museum	*The Exit 80 Project aims to develop the area just north of the intersection of I-76 and Colorado 52, using the former powerplant (which currently houses the local parks and rec dept.) as a visitor center/museum. The Rainbow Bridge, historic powerplant, multi-use trail along the South Platte River and Riverside Park combine to create exceptional potential for a gateway to both the community and Byway with outstanding visitor amenities and recreation opportunities.	*The Colorado kiosk that was installed at the entrance to Riverside Park has been temporarily removed. The location of the kiosk just inside the entrance to Riverside Park was not easily-visible from Colorado 52.
Stoneham	*historic pool hall adapted for retail use (currently an antique store) *historic bank building (currently Dewey's Bar and Grill)	no interpretive materials currently in place	Community Celebration (September)	*There is a pullout (formerly a weigh station) at the intersection of Colorado 14 and Colorado 71 near Stoneham with good potential for a wayside exhibit. Another potential location is in the parking lot of the Prairie Café and Gift Shop located in Stoneham.	*The Prairie Café and Gift Shop on Colorado 14 is open during normal business hours, one of very few restaurants on Colorado 14 that are reliably open.
Sterling	*Colorado kiosk at Welcome Center on I-76 *Overland Trail Museum* *Logan County Courthouse *seven interpretive panels inside Welcome Center	*riparian ecology *Battle of Summit Springs *Overland Trail *local and regional history	*Antique Tractor Pull (February) *Northeast Junior College Toy Show (February) *Northeast Junior College Car Show (March) *Burning Blacktop Poker Run (June) *Celtic Fest (June) *Heritage Festival (July 4 th) *Flatlander's Car Festival (July) *Sugar Beet Days (September) *Logan County Fair and Rodeo (August)	*Pioneer Park and the Overland Trail Recreation Area, both operated by the City of Sterling, are on the Byway route and have potential as gateway sites.	

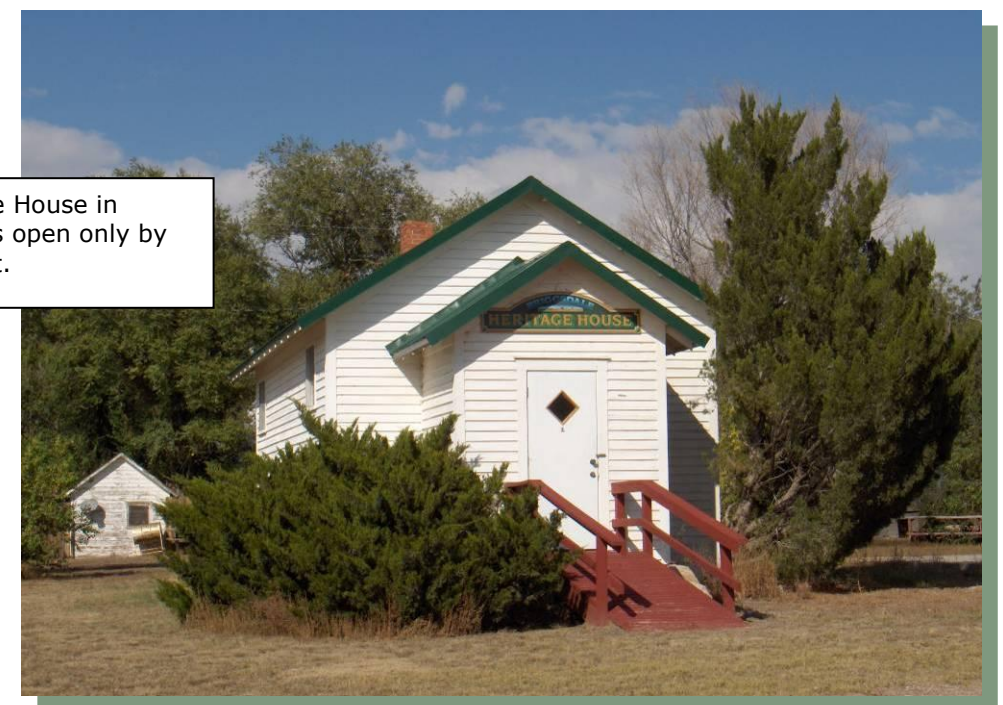
*The museums in Grover, Fort Morgan and Sterling are described in more detail on the following pages.



There is support in the community of Ault to improve/enhance the memorial statue in Liberty Park next to the high school (left).



The existing Colorado kiosk (right) at the south end of Wayside Memorial Park (left) in Ault is not easily-visible from the Byway itself.



The Heritage House in Briggsdale is open only by appointment.



Wind towers east of Grover have become a part of the landscape in the Byway region. There is a Colorado kiosk on Main Street in the community, and outstanding interpretive opportunities at the Depot Museum, where several historic railroad structures still stand.



The most recent interpretive media installed by the Byway were panels at Crow Valley, a project done in cooperation with Pawnee National Grassland and the Colorado Division of Wildlife.



Pawnee National Grassland managers intend to close the road that leads to the area above a system of cliffs where raptors nest (top), and move visitor facilities from the bluff where they are currently located (middle) to a new, lower site northeast of the existing overlook (bottom).

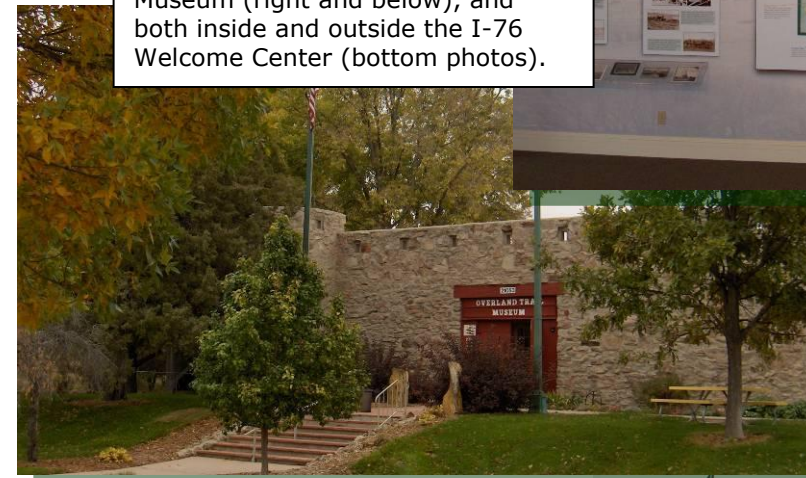


The kiosk at New Raymer shows the damage from ultraviolet light common to all the Colorado kiosks on the Byway. The kiosk must compete with the rodeo sign for the attention of travelers on Colorado 14.

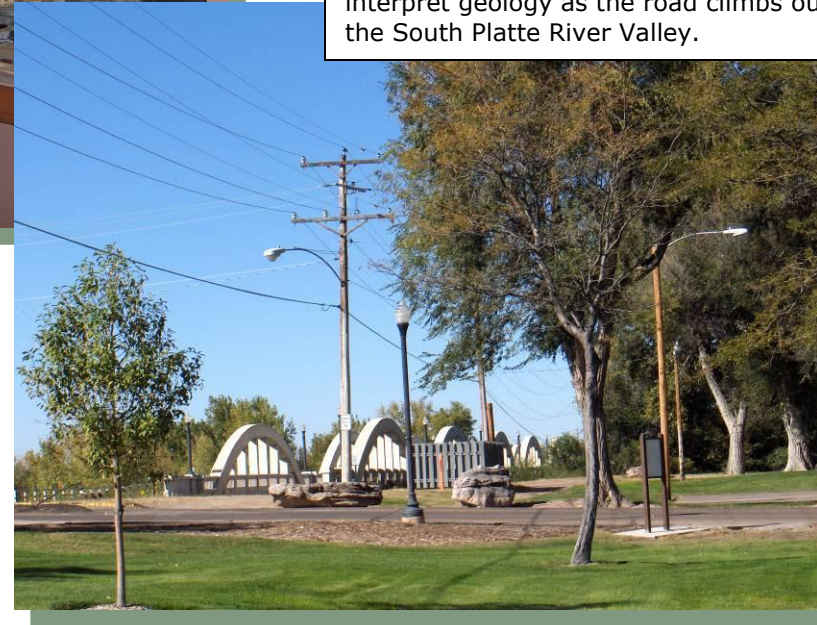
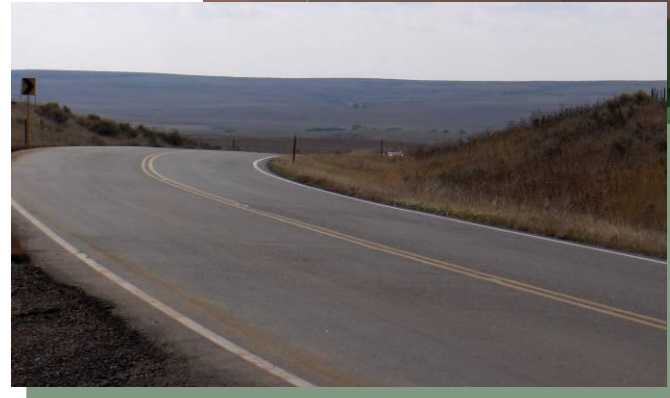


The large existing pullout at the intersection of Colorado 14 and 71 near Stoneham has plenty of room for a wayside exhibit.

The Byway has a strong presence in Sterling, with exhibits in the Dave Hamil Building at the Overland Trail Museum (right and below), and both inside and outside the I-76 Welcome Center (bottom photos).



The Fort Morgan Museum has an exceptional collection of Native American artifacts from Northeast Colorado (left). Sites of historical significance in Fort Morgan include the Rainbow Bridge (below), while views of Wildcat Canyon from Colorado 52 north of town (far left) suggest an opportunity to interpret geology as the road climbs out of the South Platte River Valley.



Museums in Byway Communities

The Byway region is rich in opportunities for visitors to experience small-town museums of excellent quality. In addition to the cultural assets located directly on the Byway, there are also several museums in Greeley. The Greeley opportunities should be promoted in addition to those in Byway communities where possible in order to strengthen the market appeal of the Byway to heritage travelers who are particularly interested in museum-type experiences.

Briggsdale Heritage House

The project team did not visit the Briggsdale Heritage House due to time constraints. Inclusion of the Heritage House in Byway orientation materials is problematic because it is only open sporadically, requiring an appointment. Secondary sources describe it as being primarily a repository for historic photographs and archival documents.

Grover Depot Museum

The Grover Depot Museum is located in an historic train station. An abandoned grain elevator and other railroad-related structures still stand at the site as well. The museum space consists of two stories. The upper story is a re-creation of the living quarters where the stationmaster and his family resided, including a kitchen, bathroom, sitting room and bedroom.

The downstairs area includes one room dedicated primarily to the display of homestead-era artifacts, documents, photos and memorabilia organized by family. A display case in the other downstairs room houses a somewhat haphazardly-organized collection of both human and paleontological artifacts (i.e. arrowheads, fossils). Other items on display include artifacts of community life in Grover, from an old telephone switchboard and post office boxes to banners from World War II era school sports teams and antique office equipment.

The patio outside the museum entrance features bricks paid for by museum supporters.

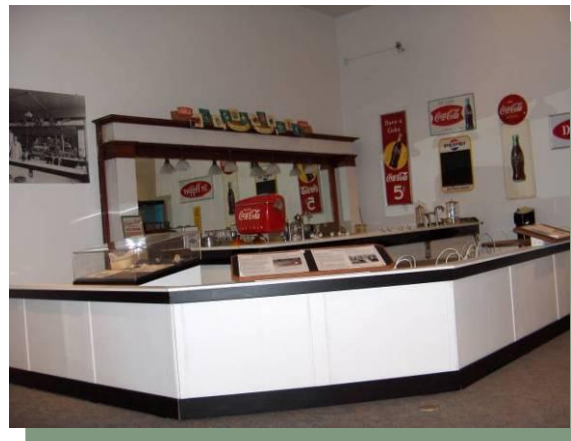


Fort Morgan Museum

The Fort Morgan Museum, which shares a building in City Park with the community's public library, is the only museum on Colorado's eastern plains to be accredited by the American Association of Museums. Admission to the museum is free (donations are suggested), and it is open six days a week.

The museum houses both permanent and temporary exhibits, with about a thousand square feet of space on the building's lower level for traveling/changeable displays. The permanent collections include an exceptional array of Native American artifacts from the Paleoindian to historic periods. Other highlights of the permanent collection include an exhibit dedicated to Fort Morgan most famous native son (swing-era bandleader Glenn Miller), re-creations of a print shop and 1950's soda fountain, an exhibit about the Rainbow Bridge, display cases with paleontological artifacts and a re-created dig. A virtual tour is available on the museum's website (<http://www.ftmorganmus.org/>).

The Fort Morgan Museum has an excellent outreach program, with a broad spectrum of audiovisual offerings, teaching materials and artifacts available to loan. An ongoing lecture series will offer programs in 2008 on railroading and women in baseball. Two regularly-scheduled monthly programs feature speakers on a variety of topics. Tours of the town's cemetery and the Sherman Street Historic District are available on request.



Overland Trail Museum (Sterling)

The Overland Trail Museum in Sterling is a much more expansive and diverse informal learning facility than one might expect to find in a small, rural community. It is housed in a building constructed during the Great Depression as a WPA (Works Progress Administration) project, built of native stone as were some of early trading forts on the plains. Strategically located across from the I-76 Welcome Center, the museum welcomes nearly 10,000 visitors annually. It is open seven days a week (April-October) and Tuesday-Saturday from November through March. Adult admission is \$2.

While the museum's original focus was the pioneer era and westward expansion, it has grown steadily and there have been a number of significant additions in recent years, including a just-completed machine shed that will house some of the museum's large collection of antique farm and ranch implements.

The highlight of many visitors' experience is the "village" found behind the main buildings. An array of historic structures has been relocated to the site, and interiors have been re-created with a wealth of period artifacts. The structures include a school, general store, print shop, church, barbershop, barn, gas station and residence. An abundance of farm/ranch implements are on display throughout the exterior space.

The museum proper houses a collection that includes paleontological resources, Native American and EuroAmerican settlement period artifacts, mannequins in period clothing, antique furnishings that include doll houses and musical instruments as well as textiles and early electronics, an extensive collection of dolls, and, of course, the two-headed calf.

The Dave Hamil Building is a recent addition that focuses on rural electrification and its impact on society. One wall of the building is dedicated to graphics about the Byway, and there is space for changing/traveling exhibits ("The Fabulous Fifties" was the featured exhibit when this plan was written). There is a virtual tour of the museum and some of Sterling's historic buildings on the City of Sterling website at <http://www.sterlingcolo.com/dept/plr/museum.php>.



Statements of Significance

The process of interpretive media development typically begins with the writing of statements of significance. The essence of interpretation is discovering a sense of place, and statements of significance describe why a place is unique, special or important.

The job of the interpreter is to facilitate visitors' intellectual and emotional connections to a place by telling stories. Storylines are derived from interpretive themes that link a place's tangible elements to the ideas, meaning, beliefs and values that are its intangible elements. Interpretive themes are derived from statements of significance.

Statements of significance are statements of fact. Interpretive themes introduce the human connection, the emotional dimension, and express "universals" that help visitors of every age, ability and learning style find meaning in a resource.

PPTSHB Statements of Significance

Pawnee Pioneer Trails Scenic and Historic Byway is unique among the state's byways because it showcases the agricultural heritage of eastern Colorado and offers visitors the opportunity to see landscapes unlike any others in a state known for its scenery.

Byway travelers have the opportunity to experience remnants of the native shortgrass prairie that is one of the most threatened ecosystems in North America, as well as geological features that distinguish the Colorado Piedmont from the surrounding High Plains and which reveal millions of years of natural history.

Paleontological resources in the Byway region include globally-important fossils from the Miocene Epoch that have made major contributions to our knowledge of the evolution of horses and camels, as well as important fossil records of Oligocene Epoch titanotheres, some of the last North American dinosaurs, marine reptiles from the Cretaceous Interior Seaway and megafauna from the last Ice Age.

Nearly 300 species of birds have been sighted on the Pawnee National Grassland, which has been designated a Globally Important Bird Area by the National Audubon Society because it provides habitat for several species of concern, including the mountain plover, ferruginous hawk and long-billed curlew.

The aridity of the Colorado Piedmont has a profound effect on the composition of its natural communities: the plants, animals and people who live in the region must adapt to a scarcity of water to survive.

Archaeological sites in the Byway region such as the Dent mammoth kill site in Weld County and the Donovan site in Logan County have made important contributions to our understanding of the cultures of the Native American peoples who hunted and foraged on the lands of the Colorado Piedmont for more than ten thousand years before the arrival of EuroAmerican settlers.

The modern agricultural techniques that visitors can view in practice along the Byway were developed in response to the climatic extremes and unreliable rainfall of the Colorado Piedmont that caused several cycles of boom and bust during the region's post-settlement history.

Interpretive Themes

Following the scoping meeting held on September 25, 2007, Board members completed a survey that asked open-ended questions about potential sites and media, and which also asked them to rate the relative importance of various topics on a four-point Likert scale from “not at all important” to “extremely important.” The input received was used to inform the theme development process. Topics and their rankings from highest to lowest are shown in the table below. (Topics are simple phrases, while themes are typically written in complete sentences that suggest a storyline).

Table 3: Topic Rankings

Topic	Mean Score
Geologic History	3.6
Archaeology	3.6
Land Use	3.6
Wildlife	3.6
Railroad History	3.4
Ranching & Ranching History	3.4
Historic Trails	3.4
Riparian Ecology	3.25
Settlement-Era History & Homesteading	3.2
Native American Culture	3.2
Ecology of the Shortgrass Prairie	3.2
Farming Techniques	3.2
Dust Bowl & Reclamation History	3
Community Development	3
Wind Farming	2.8
Missile Silos	2.75
Energy Extraction	2.6

The central theme statement for the Byway is the unified, overarching message that tries to pull together the statements of significance and primary themes in a single message.

Primary themes will be used to direct the development of interpretive media that will connect visitors with Byway resources by helping them explore the place’s inherent meanings from their own unique perspective. Primary themes add the human element, the emotion and underlying meaning to each factual statement of significance.

Readers are reminded that this is a first draft. Your criticism and input on the preliminary versions of these themes is a critical step in the planning process, and the planning team hopes that you will take the time to consider them carefully and suggest changes, deletions and additions.

Central Theme

For purposes of reference, the following theme was used to direct development of the large Byway map panel that was installed at Crow Valley in August 2007 (a duplicate will be installed at Pawnee Buttes, probably in Spring 2008):

The Pawnee Pioneer Trails Scenic and Historic Byway offers visitors the opportunity to experience a unique Colorado landscape where winds echo with the voices of cowboys, explorers, trappers, farmers and hunters of bison, and millions of years of geological history are dramatically revealed in its signature landmarks.

The central theme for the Byway builds on that theme and tries to bring in a sense of the importance of places like the Byway region to modern city dwellers for whom a trip along the Byway represents travel in both space and (metaphorical) time:

Pawnee Pioneer Trails Scenic and Historic Byway offers visitors the opportunity to experience a unique part of Colorado where people are still intimately tied to the land, and where open spaces and wildlife create an increasingly rare chance to imagine what people's lives were like in past times under the vast prairie sky.

Primary Themes

Human Culture & History

Native Americans hunted and foraged across the Colorado Piedmont for at least twelve thousand years before EuroAmericans arrived, but they left scant evidence of any permanent settlements, suggesting that although their hunter-gatherer lifestyle was profoundly different from that of later people who tried to farm on the Piedmont, both cultures were challenged to survive in a land where drought can rule for decades.

Migration and Settlement Patterns

Patterns of human migration and settlement in the years following EuroAmerican settlement were shaped by the availability of water and transportation, just as the nomadic lifestyle of the Native Americans who hunted bison was shaped by the seasonal availability of plant foods and the movement of the herds.

Land Use

People want to use the lands of the Byway region for food and energy production, recreation, wildlife habitat and homes, and we will be better able to meet the challenge of balancing those competing demands if we understand and appreciate the history of what has gone before.

Geology & Paleontology

The geologic strata revealed in Pawnee Buttes and elsewhere in the Byway region tell a story spanning millions of years, reminding us that all of human history is only a blink of an eye in the vast sweep of planetary time.

Ecology

The shortgrass prairie landscape through which the Byway passes are home to more than 400 species of plants, 300 bird species and over 50 species of mammals, a surprising biological diversity that may not be apparent to the casual observer.

Opportunities for New Media

Table 4 describes new interpretive media for the Byway organized by location. A list of recommended media organized by implementation priority can be found in the "Implementation Priorities and Cost Estimates" chapter that begins on p.45. The term "gateway kiosk" as used here refers to structures of the sort illustrated in the "Gateways" chapter that begins on p.41 (following this chapter). "Wayside exhibit" is used to describe a smaller interpretive product such as a single interpretive panel mounted on a basic stanchion (rather than a large gateway structure). The already-fabricated panels to be installed at Pawnee Buttes will be mounted on simple stanchions of unfinished steel.

Table 4: Media Prescription

Site	Media Recommendation	Themes/Topics	Target Audience Segments*		Possible Partners	Notes/Comments
			Local, General Interest	Non-Local, General Interest		
			Local, Special-Interest	Non-Local, Special-Interest		
Byway-wide, Off-Site	<ul style="list-style-type: none"> *website *downloadable brochures/guides, including the existing Byway brochure and specialty publications focused on geology, Bird Tour & historic buildings of Byway communities *Byway guide keyed to mileage markers & GPS coordinates, others TBD *Byway short film *traveling exhibit(s) *booklet created from existing interpretive panels and/or downloadable files 	<ul style="list-style-type: none"> *overview of Byway natural/cultural resources *visitor information & orientation *local history, with a special emphasis on colorful characters from the past *historic trails i.e. the Texas-Montana Cattle Trail and Trapper's Trail 	<ul style="list-style-type: none"> *students (5-9) *students (9-13) *students (13-18) *heritage travelers 	<ul style="list-style-type: none"> *Metro Denver & Northern Front Range residents *heritage travelers 	<ul style="list-style-type: none"> *town governments of Byway communities *Logan County Economic Development *Logan County Chamber of Commerce *Logan County Historical Society *Morgan County Economic Development *Fort Morgan Chamber of Commerce *Fort Morgan Heritage Foundation *Weld County Historical Society *Ault Business Association * Pawnee National Grassland *CDOT *Colorado Division of Wildlife 	One desired outcome of website development is to create a source point from which potential Byway visitors can download both informational and interpretive content. These media are visualized as being both printable brochures (which would be free of charge) and multimedia podcasts (for which there would be a use fee that might be used to defray the costs of content development, and, once content development costs have been covered, for website maintenance).
Ault	<ul style="list-style-type: none"> *gateway kiosk (see notes) *wayside exhibit at proposed museum *Byway presence, media TBD, at proposed new Pawnee National Grassland Headquarters (a site approximately six miles east of Ault on Highway 14 is under consideration) 	<ul style="list-style-type: none"> *overview of Byway natural/cultural resources *visitor information & orientation *local recreation opportunities & visitor amenities *local history *others as desired by community of Ault and Pawnee National Grassland 	<ul style="list-style-type: none"> * motorists in Ault *heritage travelers 	<ul style="list-style-type: none"> *heritage travelers 	<ul style="list-style-type: none"> *Town of Ault *Ault Business Association *non-profit 510.C.3 corporation established to operate museum *Union Pacific Railroad *CDOT *Weld County 	The Forest Service is considering relocation of the headquarters of Pawnee National Grassland to a site on Colorado 14 in Ault. Since the new headquarters would obviously be the preferred site for any sort of gateway, the discussion of the Ault gateway needs to be deferred until this decision is made and a site is selected.
Briggsdale	<ul style="list-style-type: none"> *wayside exhibit at Heritage House *wayside exhibit at historic church (?) 	*local history	<ul style="list-style-type: none"> *heritage travelers 	<ul style="list-style-type: none"> *heritage travelers 	---	Community support for interpretive improvements needs to be assessed. The Heritage House is open only sporadically.
Crow Valley	<ul style="list-style-type: none"> *updated full-color Bird Tour brochure *Pawnee National Grassland is working w/ Briggsdale FFA (Future Farmers of America) to improve the Farm Museum; interpretive panels have been designed but funding for fabrication is not currently available 	<ul style="list-style-type: none"> *new panels interpret Dust Bowl history, birds and offer an overview of Byway resources *birding *living snow fences 	<ul style="list-style-type: none"> *students (5-9) *students (9-13) *students (13-18) *heritage travelers 	<ul style="list-style-type: none"> *heritage travelers 	<ul style="list-style-type: none"> * Pawnee National Grassland *Colorado Division of Wildlife *Greeley Audubon Society 	New interpretive panels were installed at Crow Valley in August 2007. Nine panels for the Bird Tour that begins at Crow Valley are in the final stages of design and should be ready for installation in Spring 2008. Some site work at tour stops will be necessary prior to installation.
Grover	<ul style="list-style-type: none"> *wayside exhibit at location TBD *guided tours of Cedar Creek Wind Energy Project 	*alternative energy production	<ul style="list-style-type: none"> *students (5-9) *students (9-13) *students (13-18) *heritage travelers 	<ul style="list-style-type: none"> *heritage travelers 	<ul style="list-style-type: none"> *Town of Grover *Pawnee Grazing Association *Babcock & Brown *BP Alternative Energy 	Officials of the two firms operating the Cedar Creek Wind Energy Project have indicated that they may be willing to support outreach efforts to interpret the wind farm. Doris Williams will pursue discussions with company representatives about media and/or program possibilities, which might take the form of a kiosk in Grover, docent-led tours of the project and/or some sort of multimedia product (i.e. short film).

* See Table 1 on p.24 for a description of audience segments.

Site	Media Recommendation	Themes/Topics	Target Audience Segments*		Possible Partners	Notes/Comments
			Local, General Interest	Non-Local, General Interest		
			Local, Special-Interest	Non-Local, Special-Interest		
Sligo Cemetery	*wayside exhibit	*local history esp. railroading	*heritage travelers	*heritage travelers	*Weld County Historical Society	There have been some problems at the cemetery with vandalism and littering. Any media development must be done tastefully, with due consideration for the feelings of the families whose ancestors are interred at the cemetery, and with the goal of encouraging respect for the site and the history that it represents.
			*photographers	*photographers		
Pawnee Buttes	*new interpretive panels will be installed when the trailhead re-alignment is complete (possibly Spring 2008) *additional interpretive panel to complement/enhance new panels *re-creation of stone line camp	*new panels focus on shortgrass prairie ecology & paleontology *geology *raptors and other birds of Pawnee Buttes *ranching history *wind power	*students (5-9) *students (9-13) *students (13-18) *heritage travelers	*heritage travelers	*Pawnee National Grassland *Colorado Division of Wildlife *Pawnee Grazing Association *Crow Valley Livestock Grazing Cooperative *Weld County Historical Society *Greeley Audubon Society	A stanchion for an additional interpretive panel has been fabricated; it is stored at the Briggsdale Work Center. The panel is still the property of the fabrication contractor; cost to acquire it will be \$800. The proposed native stone line camp would be built based on historic archival photos and intended to serve as a teaching tool as well as emergency shelter.
			*birders *campers *horseback riders *hunters *photographers *mountain bikers	*birders *campers *hunters *photographers *mountain bikers		
New Raymer	*none proposed at this time	---			---	The panels in the Colorado kiosk located at New Raymer are badly deteriorated and in need of replacement.
Fort Morgan	*gateway kiosk	*overview of Byway natural/cultural resources *visitor information & orientation * local recreation opportunities & visitor amenities *local history * others as desired by community of Fort Morgan	* motorists on I-76 * motorists in Fort Morgan *heritage travelers	*heritage travelers	*City of Fort Morgan *Fort Morgan Heritage Foundation *Fort Morgan Chamber of Commerce *Morgan County Economic Development *City of Fort Morgan Parks Department *CDOT *Great Western Sugar Company	See the discussion of gateways in the chapter that follows for more detail.
			*birders *OHV-users *campers *horseback riders *hunters *photographers *mountain bikers	*birders *OHV-users *campers *hunters *photographers *mountain bikers		
Wildcat Canyon	*wayside exhibit	*geology	*heritage travelers	*heritage travelers	*City of Fort Morgan *Fort Morgan Chamber of Commerce *Morgan County Economic Development *CDOT	There is an existing pullout that appears to be adequate (without improvement) to accommodate a wayside exhibit, pending consultation w/ CDOT. It does not offer the best view of the canyon available from Colorado 52, though, so a viewshed and safety/feasibility analysis probably should be undertaken before any development, with an eye toward identifying a site where a pullout might be constructed
			*photographers	*photographers		

* See Table 15 on p.25 for a description of audience segments.

Site	Media Recommendation	Themes/Topics	Target Audience Segments*		Possible Partners	Notes/Comments
			Local, General Interest	Non-Local, General Interest		
			Local, Special-Interest	Non-Local, Special-Interest		
Stoneham	* wayside exhibit	*local history esp. farming/ranching			*community of Stoneham *CDOT	Possible locations include the parking lot of the Prairie Café and Gift Shop or the pullout on the northeast corner of the intersection of Colorado 14 and 71.
Pawnee Nat'l Grassland, East Entrance	*wayside exhibit	*grassland management *birding *recreation opportunities *visitor information & orientation *rules and regulations *others as desired by Grassland managers	*heritage travelers *birders *OHV-users *campers *horseback riders *hunters *photographers *mountain bikers	*heritage travelers *birders *OHV-users *campers *hunters *photographers *mountain bikers	*Pawnee National Grassland *CDOT	Some site work might be required on the existing pullout to better accommodate additional signage and to provide for a greater degree of access for persons of all ability levels. There are concerns over vandalism at this remote location, but the possibility of a partnership with Pawnee National Grassland should be pursued.
Sterling	*gateway kiosk	*overview of Byway natural/cultural resources *visitor information & orientation * local recreation opportunities & visitor amenities *local history, including linkage to heritage resources in Brush and other Overland Trail communities * others as desired by community of Sterling	*motorists on I-76 *motorists in Sterling *heritage travelers *birders *OHV-users *campers *horseback riders *hunters *photographers *mountain bikers	*motorists on I-76 *motorists in Sterling *heritage travelers *birders *OHV-users *campers *hunters *photographers *mountain bikers	*City of Sterling *Logan County Economic Development *Logan County Historical Society *CDOT *City of Sterling Department of Parks, Library & Recreation	See the discussion of gateways in the chapter that follows for more detail. Both museum staff and members of the Byway Council from Sterling would like to create greater awareness of the Overland Trail Museum opportunity (many visitors, even at the Welcome Center just across the road, are not aware of its existence).

* See Table 15 on p.25 for a description of audience segments.



Visitor amenities at Pawnee Buttes are limited to portable toilets at the overlook. Construction of an authentic stone line camp (reminiscent of the open range days) at the new trailhead would kill two birds with one stone by capturing a vanished legacy of cowboy culture while providing emergency shelter for unprepared or sick/injured visitors.

Several Byway viewsheds are now dominated by wind towers. While some local residents and visitors are not pleased with the presence of these structures on the once-uncluttered horizon, wind farms are now a fact of life on the prairie. These towers are symbols of ongoing, sweeping changes in the way our society meets its energy needs. The Byway has the opportunity to play a major role in interpreting alternative energy technologies and how the changes they represent will affect our economy and culture.



The interpretive panel reproduced on this page is a layout for one of the nine signs that will be erected at stops on the Bird Tour that begins at Crow Valley. It is presented here so that readers can get a sense of the media that are already in place (also see the Byway orientation panel at Crow Valley on p.6), or that will be installed in the near future on the western reaches of Pawnee National Grassland. The six circles on this panel are graphic representations of bolts that will be used to mount the sign to a stanchion of unfinished steel.



Lining the Nest

Burrowing Owl (*Athene cunicularia*)

Food: insects, spiders, small mammals and birds
When Seen: spring, summer, fall
Where: near prairie dog towns in the morning and evening
Migration: Colorado-nesting owls winter in several Southwestern states and Mexico
Nesting: in burrows, often those abandoned by prairie dogs

Why do you suppose burrowing owls line their nests with cow and horse dung? They also scatter dung around the entrances to their underground homes, which are built in the abandoned burrows of prairie dogs. Scientists are not certain why burrowing owls use dung like this, but one explanation is that it is a lure to attract the insects which they eat.

A dung-lined nest is also cooler and more humid, offering extra protection from the heat of a prairie summer while masking the scent of the owls' eggs and young from predators like coyotes.



Prairie Connections

Prairie dog colonies benefit more than 100 wildlife species. Deer and antelope are drawn to the different mix of plants that grows in soil disturbed by digging, while the clipped grass next to burrow entrances is ideal habitat for mountain plovers and other prairie birds that prefer short grass. Coyotes and several raptor species eat prairie dogs.



Did You Know?

Burrowing owls can dig their own burrows, but in the West they rely primarily on those already excavated by prairie dogs. Steep declines in prairie dog populations have been accompanied by similar losses in owl populations, so conservation efforts focus on maintaining healthy prairie dog colonies. Artificial nesting burrows are also used at times.



Arapaho & Roosevelt National Forests/Pawnee National Grassland

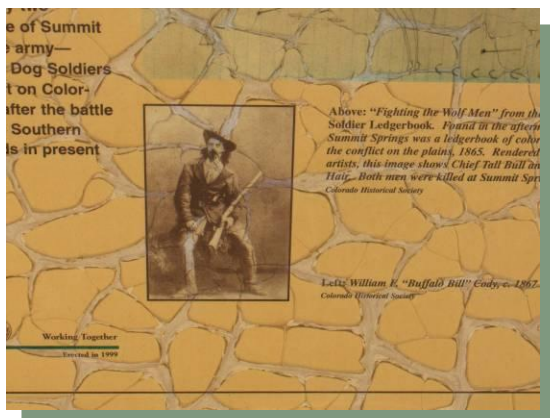
Gateways

Establishing the Byway identity and providing visitors with orientation and wayfinding information in the gateway communities of Ault, Fort Morgan and Sterling is critical to the Byway mission. The existing Colorado kiosks do not differentiate Pawnee Pioneer Trails from other scenic byways in Colorado. While the metal and stone structures are aesthetically pleasing and in good condition, only in Sterling can the location of the existing kiosk be considered optimal and the graphic panels have, without exception, seriously deteriorated and are in need of replacement.

This plan does not recommend removal of the existing kiosks, rather that gateway structures of a design unique to the Byway be installed at high-visibility locations in the gateway communities. The new kiosks would not be intended to replace the existing Colorado kiosks, but rather to complement them. The graphics in the Colorado kiosks are in poor condition, and new graphics might eventually be installed to replace the existing ones that are extensively cracked (see the photos at the bottom of this page).

Meetings have been held with local officials in each town, and there not only appears to be fairly broad support for new gateways (which should translate into matching funds), but there is also good potential at sites in each of the communities to develop an eye-catching wayside. Five gateway concept designs were developed and presented for public comment as part of this planning process. These drawings, and the public responses, can be found in Appendix D.

The photos below show the basic design of the Colorado kiosk and the cracking that has taken place in the graphic panels. The top photo shows the kiosk in Grover. The lower two photos show the cracks in the graphic panels at the I-76 Welcome Center in Sterling (left) and on the frontage road in New Raymer (right).



Ault

The situation in Ault is somewhat problematic as far as Byway identity. The Byway starts at the intersection of U.S. 85 and Colorado 14, but the CDOT scenic byway sign (the standard blue columbine) is not readily visible to motorists approaching the intersection. The Colorado kiosk visitors can use to get oriented to Byway opportunities is located north of the intersection in Wayside Memorial Park. This park, located on a strip of land that runs parallel to U.S. 85 and the railroad tracks, is on property leased by the Town of Ault from the Union Pacific Railroad. It offers plenty of parking, mature shade trees, landscaped grassy areas, and it is home to an historic caboose maintained by volunteers from the Ault Business Association. The park is a pleasant respite from the road (popular with truckers) and the caboose has robust interpretive potential. The community is aware of this potential, and efforts are currently underway to assess the feasibility of providing running water and flush toilets at the site in order to provide an even better-equipped wayside for motorists. But travelers approaching the U.S. 85/Colorado 14 intersection from the south, west or east will probably not see the kiosk or the caboose.

Liberty Park is one block west of the intersection next to Ault High School (also a structure with historic significance). There is community support for enhancement of the Joe Martinez Memorial located there, and Liberty Park might also be considered as a location for the Colorado kiosk. A gateway development could be used to direct travelers to Liberty Park, which offers lots of grass, shade trees and picnic shelters with grills. Motorists attracted to the park would travel past all of the businesses located in downtown Ault.

The first draft of this plan recommended development of a gateway kiosk on the northeast corner of the U.S. 85/Colorado 14 intersection, at the southwest corner of the parking lot next to the railroad right-of-way (see the yellow arrows in the photos below). This is still a viable location, and there is no reason to remove it from consideration. But the Forest Service is considering relocation of Pawnee National Grassland headquarters from Greeley to a location on Colorado 14 about six miles east of Ault, which will significantly change the gateway discussion. Locating a Byway kiosk at the Grassland headquarters makes sense for obvious reasons: visitors seeking Grassland information would be exposed to Byway media as well, creating a “one-stop shopping” situation for information and orientation. Any decision on the nature and location of an Ault gateway should be deferred until more information is available regarding the relocation of Pawnee National Grassland headquarters, and the results of the study regarding septic and water availability at Wayside Memorial Park are known.



View from Main Street looking east (at left); the proposed kiosk location would be behind the orange semi, highly-visible to most motorists. The photo at right shows a closer look at the proposed site.

Joe Martinez Memorial in Liberty Park and adjacent Ault High School.



Signs marking the end of the Byway (top, looking west) are much more visible than those marking its beginning (bottom, looking east).

Fort Morgan

The Exit 80 Project in Fort Morgan is a joint effort that includes the Fort Morgan Chamber of Commerce, Morgan County Economic Development, Colorado Department of Transportation and the City of Fort Morgan Parks Department. The intent is to re-develop the area on Colorado 52 north of Exit 80 on I-76. Assets at the site are significant both historically and in terms of recreation opportunities, including:

- Riverside Park, which features a swimming pool/waterpark, picnic shelters, mature shade trees and expansive lawns with well-maintained flower beds, playgrounds and access to the multi-use trail along the South Platte River
- Fort Morgan Powerplant, an historic building currently serving as the headquarters for the town's parks department; the preliminary vision is an adaptive re-use of the brick structure to serve as a visitor information center/museum
- Rainbow Bridge, one of the most famous of the "March Arch" bridge structures in the United States, and the only one in Colorado (it is listed on the National Register of Historic Places).

The project team met with the directors of the Chamber and Economic Development Office as part of this planning process. Those officials appeared willing and eager to have the Byway participate as a partner in the planning effort. Vigorous pursuit of this exceptional partnership opportunity is strongly recommended.



The skyline at Exit 80 is dominated by the grain elevators of the Great Western Sugar Company. This is the last large sugar-beet processing facility in Colorado. Could these structures, considered an eyesore by some, be used for a large-scale mural?



The historic Fort Morgan Powerplant with the existing Byway sign.



Rainbow Bridge (left) adjoins Riverside Park (right) just north of the powerplant.



Sterling

As previously noted, the Byway has a strong presence in Sterling: a Colorado kiosk outside the I-76 Welcome Center and graphic panels inside both the center and the Dave Hamil Building at the Overland Trail Museum. This is a particularly important gateway due to the possibility of re-directing motorists whose ultimate destination is Rocky Mountain National Park west on Colorado 14 through Sterling and along the Byway (rather than continuing southwest on I-76 to the Denver metro area).

The project team and State Scenic Byways Coordinator Sally Pearce gave a presentation about scenic byways and heritage tourism to the Logan County Historical Society on 11/12/07, and the project team met earlier in the year with Society representatives and a local CDOT official to assess possible gateway locations. There appears to be solid community support for a Sterling gateway, but no clear consensus has yet emerged on its location. Three sites have good potential:

- on the grounds of the I-76 Welcome Center in the grassy area across the entry sidewalk from the existing Colorado kiosk
- in the parking lot of the Overland Trail Recreation Area across County Road 370 from the welcome center
- in the parking area of Pioneer Park running parallel to Colorado 14 on the west side of town.

The Pioneer Park site has little potential for capturing motorists on I-76. It has excellent potential, though, for setting the mood for the Byway experience as well as offering travelers all the amenities of a well-maintained, expansive (80-acre) park.



Possible location for a gateway kiosk at the I-76 Welcome Center



Possible location for a gateway kiosk at the Overland Trail Recreation Area



Pioneer Park's eighty acres offer a full-range of outdoor amenities and the long, narrow parking area paralleling Colorado 14 seems to be an ideal site to interpret the Byway.



Implementation Priorities & Cost Estimates

This section presents a list of media development projects recommended for the next ten years. Cost estimates are also provided, but readers are cautioned that many factors, including inflation, can affect final costs. Cost estimates are intended to be used as a basis for grant applications with the caveat that additional, detailed, timely cost analysis should be undertaken prior to making the assumption that a project could be completed for the amount listed here.

Three projects are considered high-priority by the Byway Council:

Stone Line Camp at Pawnee Buttes

Preliminary Cost Estimate \$65,000*

*Costs must be considered ballpark at best for obvious reasons. Should the Byway Council choose to pursue this alternative, funding for development of several interpretive panels should be included in the grant application.

This improvement alternative will require a long time horizon for planning, fund-raising, design and implementation. The vision is to build an authentic reproduction of a stone line camp of the sort in which cowboys took shelter during the short (but historically-significant) open range cattle era that began in 1861 in northeastern Colorado with the arrival of entrepreneur John Iliff. The photo below shows one of the surviving camp structures, which is located on private land in Logan County.



A line camp would serve a dual purpose by creating a superb venue for interpretation of the open range cattle era celebrated in the James Michener novel, *Centennial*, and by fulfilling its original purpose of providing shelter on the prairie. Pawnee Buttes is one of the two major attractions on the Grassland, and the site is visited by many Byway travelers who are not prepared for sudden

weather changes or otherwise need a measure of protection from the elements. A shelter of some sort could play a vital role in visitor safety at Pawnee Buttes. Providing a shelter that also interprets and enhances visitors' understanding of the history of the region (while respecting the context of the landscape) seems to create a win-win situation in which visitor safety and education are both enhanced.

The Forest Service is currently in the process of considering options for the Pawnee Buttes Trailhead. It appears likely that the trailhead will be moved from its current location on top of the bluff overlooking the Buttes to a lower location southeast of the bluff. The design of amenities (improved parking area, picnic shelters, signage and restrooms) at the new trailhead is underway. Representatives of the agency from both Pawnee National Grassland and the Supervisor's Office attended a review meeting with the planning team and the Byway Council on March 13, 2008. They expressed support for the idea that the new structures being considered could be built from native stone using a line camp theme.

Website

Preliminary Cost Estimate \$80,000*

*This cost estimate includes:

- initial research and development \$10,000
- five years maintenance & hosting (assumes blogging) \$30,000
- development of content for geology & architecture brochures \$30,000
- development of in-depth, text-only content for download \$10,000

*There is no reason why a website could not be brought on-line without paying for extensive content development (line items #3 and #4, above), which would reduce the total cost by a factor of 50%. Putting up a site without budgeting money for ongoing maintenance (of both the technical aspects of the site as well as frequent, periodic monitoring of blogs) is not recommended. Maintenance costs could be significantly reduced, though, if no monitored blogs are included on the site (costs as shown assume about two hours per week of blog-related labor). The bottom line cost estimate for website development, with no monitored blogs, no development of a geology or architecture brochures, and no development of in-depth, text-only content for download would be somewhere in the neighborhood of \$16,000. That figure includes \$10,000 for initial research and development and \$100/month for five years for basic maintenance such as updating links.

The placement of website development in a high-priority position reflects the importance of internet use as a trip-planning tool, but should not be taken to indicate a complete shift in communication strategy that marginalizes more traditional media. Many decisions to visit heritage sites (or to take part in heritage activities) are not made pre-trip but rather enroute.

Value-added possibilities for a website include:

- downloadable brochures
 - Many internet users are already in the habit of downloading and printing maps, guidebooks and so forth. The range of possibilities is broad, but preliminary thinking is that the existing Byway brochure be made available for download, plus brochures specifically dedicated to geology and historic buildings/architecture in Byway communities. The latter two options will obviously require content development. *Costs for developing (not printing) these two brochures are included in the overall cost estimate for this item at \$15,000/each, a very large proportional increase in the total cost for this item.*
- general-interest and specialty blogs
 - Research has found several sites where users have posted information about visits to Pawnee National Grassland. A general-interest blog on the website might

generate a significant number of hits, and there are possibilities for special-interest blogs as well. Birders, in particular, might be interested in a forum where they could share real-time information. The downside of blogs is that they require ongoing, frequent maintenance (which would have to be undertaken by a skilled writer with a solid knowledge of Byway resources).

- links to related sites
- downloadable electronic content (podcasts)
 - This option is relatively easy (and inexpensive) to implement in terms of the technology required, but content development is costly. It is for this reason that development of a Byway Movie is suggested as the fourth priority item in this list. The Byway Movie would be the primary podcast content available for download, and downloads would be fee-based. Costs for content development would eventually be recovered through download fees, and future ongoing revenues would pay for website maintenance. Readers should note that text-only content can be developed for a fraction of the cost of multimedia content, and that a huge amount of text-only information (as compared to traditional media such as interpretive signs) could be made available for a relatively small amount of money. The technology exists to allow users to access and download content through a touchscreen interface at exterior kiosks. Should the Byway Council decide to implement the gateway kiosk options, offering downloadable content at kiosk locations should be considered.

Traveling Exhibit(s)

Preliminary Cost Estimate\$35,000

This alternative is envisioned as an easily-transported, highly-durable exhibit that could be displayed at regional events such as rodeos and festivals during the summer travel season, and at sites such as regional schools during the colder months. Schools in particular seem to be excellent locations at which to increase awareness of Byway resources and recreation opportunities, but there are a number of other possibilities such as libraries, museums, conference sites, sporting events and so forth.

The exhibit might be as simple as a set of one-sided, free-standing graphic banners of the sort frequently seen in tradeshow displays (the flexible graphic banner pulls out of a metal cylinder in much the same fashion as home movie screen comes out of its metal container). It might be a more elaborate structure, though, of three or four sides with graphic banners mounted on a collapsible framework.

Whatever the design, a traveling exhibit appears to be an affordable way for the Byway to reach out to its local Colorado audience. Implementation issues include developing policies for use, as well as finding funds to pay for logistics (organizing the display schedule, storing/transporting the exhibit, etc.). There will be an ongoing need for a modest commitment of time and money.

The following projects are considered lower priority by the Byway Council (these are presented in no particular order):

Byway Movie

Preliminary Cost Estimate\$65,000

This alternative represents an ambitious effort to develop a multimedia presentation about the Byway that could be used for several purposes. A short film (15-20 minutes) would have many uses:

- It might be loaned to regional schools for educational purposes, perhaps as part of a "preparation pack" that would function as a resource for teachers to help them get their class ready for a Byway-based field trip (with followup curriculum materials for post-visit learning as well).
- The process of creating the film would concurrently create content for the website. The film could be viewed online or downloaded (for a small fee) in a format suitable for handheld personal electronic devices. By making the film, a podcast is created.
- DVD's could be marketed in stores throughout the Byway region.

The initial outlay of funds is considerable, but this is the only option that has a reasonable prospect to eventually pay for itself and actually create a positive cash flow for the Byway (which could pay for things like maintenance of the proposed website, shipping of the proposed traveling exhibit, etc.). As such, it might be considered experimental (the project team is not aware of any other Colorado byway that has produced a movie, but has not done exhaustive research as to whether or not this is the case).

Gateways in Ault, Fort Morgan

Preliminary Cost Estimate \$50,000/each*

*This cost estimate is obviously of the "best-guess" variety since there are five designs proposed, each of which would probably vary at least somewhat in price. This estimate allows \$20,000 for development of interpretive materials, \$30,000 for the kiosk itself (and associated site work).

Please see the discussion of gateways that begins on p.41 for more details; drawings of gateway concepts can be viewed in Appendix D.

Wayside Exhibits

Preliminary Cost Estimate \$50,000*

*This cost estimate assumes that ten panels will be designed, fabricated and installed at various Byway locations, including:

- Briggsdale (one at Heritage House, another at Christian Church?)
- Grover (location TBD)
- Sligo Cemetery
- Pawnee Buttes
- Wildcat Canyon
- Stoneham and/or intersection of Colorado 14 and 71
- Pawnee National Grassland East Entrance
- others TBD. Suggestions include:
 - Ned's Turnout on CR 100 (with a view of the landmark Keota water tower)
 - Keota
 - Kalous townsite
 - Pawnee Pass (top)
 - Pawnee Pass (bottom, with a view of the abandoned homestead)
 - Crow Creek
 - points where historic trails cross Colorado 14

- Crow Valley
- Rainbow Bridge
- strategic locations with views to geologic phenomena

Costs include development and fabrication of panels approximately six square feet in viewing area (48x18" or 36x24") at a cost of \$1,000/each, fabrication of custom, unfinished steel stanchions of similar design to the stanchions stored at the Briggsdale Work Center at a cost of \$1000/each, and \$1000/each for installation and miscellaneous costs such as shipping and crating.

No costs for site work are included in this estimate. The possible sites at Sligo Cemetery, Wildcat Canyon and Pawnee National Grassland East Entrance appear to have the greatest likelihood of needing at least a small amount of modification. The existing pullout on Colorado 52 being considered for a wayside does not provide optimal views of Wildcat Canyon. There are no other apparent locations on Colorado 52, though, where there is an existing pullout suitable for purposes of a wayside.

There were suggestions in early planning materials to place interpretive waysides at the sites where historic trails meet Colorado 14, and these suggestions have been echoed in the input to this plan by reviewers of the first draft. No research has been done as yet to determine whether or not significant site work would be necessary at those locations. The west entrance to Pawnee National Grassland is another candidate for a wayside, but the existing signage is on the inside of a curve with a 65-mph speed limit, and it appears that major site work would be required to create a safe stopping place.

Gateway in Sterling

Preliminary Cost Estimate\$50,000

Readers may question why the Ault and Fort Morgan gateways are given a higher priority in this plan than the Sterling gateway. This is because the Byway already has made a significant investment in interpretive media located in Sterling, specifically a Colorado kiosk and a number of interpretive panels at the I-76 Welcome Center, and a full wall of graphic panels in the Dave Hamil Building at the Overland Trail Museum.

Full-Color Bird Tour Brochure

Preliminary Cost Estimate\$15,000

This Bird Tour route starts at Crow Valley and ends on Colorado 14, so it is an opportunity that will appeal to and attract Byway travelers. Research and development of new interpretive panels for the Bird Tour was nearly complete at the time this plan was written, but that project does not involve Byway funds or participation (it was a joint project between Pawnee National Grassland and the Colorado Division of Wildlife).

There is an existing black-and-white brochure for the Bird Tour that was developed by Pawnee National Grassland staff. It will require updating when the new interpretive panels are installed (probably in 2008), but this is not a Byway responsibility. The possibility of developing a full-color brochure was discussed by Grassland staff and the contractor responsible for design and fabrication of the new signs during the course of that project, but no action has been taken to date, and no Federal funding is available at this time (of which the project team is aware). Should this situation persist, it would seem appropriate that the Byway pick up the slack and seek grant funding to produce literature that would enhance visitors' experience on the Bird Tour.

Much of the research that would be required for such a brochure has already been completed in the process of interpretive sign development, so this would be a relatively inexpensive project. The cost estimate assumes \$12,000 for research and development, artwork and copywriting, and \$3000 for printing of about 5,000 copies of a tri-fold, 8½x11" brochure.

Appendix A: Bibliography

Printed Material

_____. *Audience Inventory and Analysis: Arapaho/Roosevelt Interpretive Planning Effort, Discussion Draft #3*. Fort Collins, CO: unpublished Forest Service document, 2004.

Beck, L., & Cable, T. *Interpretation for the 21st Century: Fifteen Guiding Principles for Interpreting Nature and Culture*. Champaign, IL: Sagamore Publishing, 2002.

Brochu, L. *Interpretive Planning: The 5-M Model for Successful Planning Projects*. Fort Collins, CO: National Association for Interpretation, 2003.

Brunswig, R., & Pitblado, B., eds. *Frontiers in Colorado Paleoindian Archaeology: From the Dent Site to the Rocky Mountains*. Boulder, CO: University Press of Colorado, 2007.

Cassells, S. *The Archaeology of Colorado, Revised Edition*. Boulder, CO: Johnson Books, 1983, 1997.

Cialdini, B.; Sagarin, B.; Rhoads, K.; Barrett, D. and Winter, P. "Perceived Effectiveness of Positive and Negative Messages" in *Recreation Research Update*. Riverside, CA: Pacific Southwest Research Station, USDA Forest Service, 1999.

_____. *Colorado's Heritage Tourism, Travel Year 2003*. New York, NY: Longwood's International, 2004.

_____. *Colorado's Outdoor Recreation Future: Strategies for Colorado's Outdoor Heritage*. Denver, CO: Colorado State Parks, 2004.

_____. *Colorado Travel Year 2006, Final Report*. New York, NY: Longwood's International, 2007.

Cordell, H.K. *Outdoor Recreation for 21st Century America*. State College, PA: Venture Publishing, Inc., 2003.

Cornell, J. *Sharing Nature with Children*. Nevada City, CA: Dawn Publications, 1998.

Danilov, V. *A Planning Guide for Corporate Museums, Galleries and Visitor Centers*. Westport, CT: Greenwood Publishing Group, Inc., 1991.

Evans, B. and Evans, C. *The Nature Center Book*. Fort Collins, CO: National Association for Interpretation, 2004.

Green, Cindy, & Cook, Suzanne. *Travelers' Use of the Internet*. Washington, D.C.: Travel Industry Association of America, 2003.

Ham, S. *Environmental Interpretation: A Practical Guide for People with Big Ideas and Small Budgets*. Golden, CO: Fulcrum Publishing, 1992.

Hargrove, C. "Heritage Tourism." *Cultural Resource Management*, Volume 25, No.1, 2002.

_____. *Interpretive Plan for Pawnee National Grassland*. Greeley, CO: unpublished Forest Service document, 2004.

Knudson, D., et al. *Interpretation of Cultural and Natural Resources*. State College, PA: Venture Publishing, 2003.

- Koschak, S. "Basics of Economic Measurement." *Vistas*. September/October 2007. Duluth, MN: America's Byways Resource Center, 2007.
- LaPage, W. *Partnerships for Parks: A Handbook for Building and Guiding Park Partnerships*. Tallahassee, FL: National Association of State Park Directors, 1994.
- Lewis, W. *Interpreting for Park Visitors*. Eastham, MA: Eastern Acorn Press, 1980.
- Louv, R. *Last Child in the Woods*. New York, NY: Algonquin Books of Chapel Hill, 2006.
- Manfredo, M., ed. "Influencing Human Behavior: Theory and Applications" in *Recreation, Tourism and Natural Resource Management*. Champaign, IL: Sagamore Publishing Co., Inc., 1992.
- _____. *Office Interpretive Plan: Arapaho & Roosevelt National Forest & Pawnee National Grassland Supervisor's Office and Canyon Lakes Ranger District*. Fort Collins, CO: unpublished Forest document, 2003.
- _____. *Outdoor Recreation in America 2003: Recreation's Benefits to Society Challenged by Trends*. Washington, D.C.: The Recreation Roundtable, 2003.
- _____. *Pawnee Pioneer Trails Scenic and Historic Byway: Corridor Management Plan*. Boulder, CO: Shapins and Associates, 1999.
- Pearce, S. Letter to Ms. Lyn Deal. 27 Nov. 1991.
- Pearl, B. "Impact of Exhibit Type on Knowledge Gain, Attitudes and Behavior" in *Curator*, Vol. 27, No. 2, pp.220-237, 1984.
- Peterson, R. *A Field Guide to Western Birds*. Boston, MA: Houghton Mifflin Company, 1961.
- Petty, R. and Cacioppo, J. *Attitudes and Persuasion: Classic and Contemporary Approaches*. Dubuque, IA: William C. Brown Company Publishers, 1981.
- Tall, D. *From Where We Stand: Recovering a Sense of Place*. New York, NY: Alfred A. Knopf, Inc., 1993.
- Tilden, F. *Interpreting Our Heritage*. Chapel Hill, NC: University of North Carolina Press, 1957, 1967, 1977.
- Veverka, J. *Interpretive Master Planning*. Helena, MT: Falcon Press Publishing, 1994.
- Wells, M., & Butler, B. "A Visitor-Centered Evaluation Hierarchy" in *Visitor Studies Today!*, Spring 2002. Arvada, CO: Visitor Studies Association, 2002.
- Wells, M. and Smith, L. *The Effectiveness of Nonpersonal Media Used in Interpretation and Informal Education: An Annotated Bibliography*. Fort Collins, CO: National Association for Interpretation, 2000.
- Zimmerman, R. *Interpretive Centers: The History, Design and Development of Nature and Visitor Centers*. Stevens Point, WI: University of Wisconsin-Stevens Point Foundation Press, 2002.

Internet-Based Resources

<http://www.tia.org/researchpubs/index.html>

https://www.co.weld.co.us/departments/extension/ext_soilsagbrochure.html

<http://www.allbusiness.com/north-america/united-states-colorado/344365-1.html>

<http://www.reeis.usda.gov/web/areera/AppendixA1.CES.CO.report.2002.pdf>

http://parks.state.co.us/NR/rdonlyres/BBCE48EC-D66A-4BEE-993F-1BA6478D22F9/0/SCORP_St_Com_Mtg_1_summary.pdf

http://www.tia.org/pressmedia/domestic_activities.html

<http://www.thumpertalk.com/forum/archive/index.php/t-221349-p-6.html>

<http://www.sterlingcolo.com/>

<http://www.cityoffortmorgan.com/>

<http://www.fs.fed.us/r2/arnf/about/organization/png/index.shtml>

<http://www.pawneecycleclub.com/>

Appendix B: Byway Council Members

The following organizations, agencies and communities were officially designated as members of the Byway Council through a Memorandum of Understanding adopted in December 1992.

City of Sterling

City of Grover

City of New Raymer

City of Ault

City of Greeley

Colorado Department of Highways

Colorado Division of Wildlife

Community of Briggsdale (unincorporated)

Community of Stoneham (unincorporated)

Crow Valley Livestock Grazing Cooperative

Weld County/Greeley Convention and Visitors Bureau

Logan County Historical Society

Logan County

Morgan County Tourism Bureau

Pawnee Grazing Association

Pawnee National Grassland (USDA Forest Service)

Weld County Historical Society

Weld County

Weld County Livestock Association

Greeley Audubon Society

Fort Morgan Heritage Foundation

Grover Historical Society

Appendix C: Audience Analysis Data

Table 5: Domestic Trip Activity Participation

Activity	2003	2004	% Change
Shopping	30%*	30%*	---
Attend a Social or Family Event	27	27	---
Outdoor Recreation	11	11	---
City/Urban Sightseeing	10	10	---
Rural Sightseeing	10	10	---
Beach Activities	10	9	-1%
Historic Places, Sites, Museums**	8	8	---
Gambling	7	7	---
Theme/Amusement Park	7	7	---
National/State Park	7	7	---
Seminar/Course	6	6	---
Nightlife/Dancing	6	6	---
Attend Sporting Event	6	6	---
Zoo/Aquarium/Science Center	5	5	---
Water Sports/Boating	5	4	-1%
Performing Arts	4	4	---
Cultural Events/Festivals	3	3	---
Golf	2	2	---
Art Museums/Galleries	2	2	---
Winter Sports	2	1	-1%

source: Travel Industry Association of America, 2003

*multiple responses allowed

**Activities considered "historical/cultural" or "heritage" are highlighted.

Table 6: Fastest-Growing Activities, 1982-2002

Activity	# of Participants, 1982 (in millions)	# of Participants, 2002 (in millions)	% Increase 1982-2002
Bird Watching	21.2	71.2	235.8%
Hiking	24.7	73.1	195.9
Walking	93.6	179.0	91.2
Off-Road Driving	19.4	36.7	89.2
Developed Camping	30.0	52.8	76.0
Swimming (not pool)	56.5	92.9	64.4
Motor Boating	33.6	51.4	53.0
Bicycling	56.5	83.9	48.5
Sightseeing	81.3	114	40
Picnicking	84.8	116.6	37.5

source: National Survey on Recreation and the Environment (NSRE), 2003

Table 7: Participation Trends in Land-Based Outdoor Recreation, 1994-95 to 2000-02

Activity	# of Participants, 1994-1995 (in millions)	# of Participants, 2000-2002 (in millions)	% Change
Land-Based Activities			
Backpacking	15.2	22.8	50.0%
Hiking	47.8	70.9	48.3
Bicycling	57.4	84.2	46.7
Horseback Riding	14.3	20.7	44.8
Developed Camping	41.5	56.3	35.7
Off-Road Driving	27.9	37.3	33.7
Walking	133.7	176.9	32.3
Hunting	18.6	24.1	29.6
Bird Watching	54.1	69.0	27.5
Picnicking	98.3	116.1	18.1
Sightseeing	113.4	110.4	-2.6
Water-Based Activities			
Motorboating	47.0	51.9	10.4%
Swimming (not pool)	78.1	89.1	14.1
Water Skiing	17.9	17.3	-3.4
Fishing	57.8	72.7	25.8
Sailing	9.6	10.0	13.4

source: NSRE, 2003

Table 8: Main Purpose of Colorado Overnight Pleasure Trips vs. U.S. Norm, 2006

Main Purpose of Trip	% of Colorado Travelers	% of Travelers Nationwide
Visiting Friends & Relatives	47%	50%
Outdoor Recreation	12	7
Touring	10	9
Special Event	8	9
Skiing	8	1
Combined Business & Pleasure	6	5
City	4	4
Casino	3	5
Country Resort	1	2
Other	1	8

source: Colorado Travel Year 2006 Final Report, Longwood's International, 2007

Table 9: Sights Seen & Things Experienced on Colorado Overnight Pleasure Trips, 2006

Type of Sight/Things Experienced	% of Colorado Travelers	% of Travelers Nationwide
Mountains	65%	20%
Friends/Relatives	55	57
Wilderness	35	21
Small Towns/Villages	35	32
Lakes/Rivers	27	31
City Gardens/Parks	23	20
Historic Areas	22	23
Natural Environment	22	13
Historic Town	22	data not available/comparison not meaningful
Colorado Scenic and Historic Byway	21	N/A
Landmarks/Historic Sites	18	16
Rural Farming Areas	16	20
National/State Parks	15	14
Museum/Science Center	9	7
Archaeological/Historic Site	8	data not available/comparison not meaningful
Viewing Wildlife/Birds	8	12
Brewery	8	2
Interesting Architecture	8	11
Unique Indian/Hispanic Cultures	7	data not available/comparison not meaningful
Zoo	7	3
Historic Train	6	data not available/comparison not meaningful
Desert Area	6	7
Historic Mine	5	data not available/comparison not meaningful
Train Ride	5	5
Historic Mine Tour	4	data not available/comparison not meaningful
Archaeological Site	3	data not available/comparison not meaningful
Art Gallery	3	3
Wine Tour	3	data not available/comparison not meaningful
Historic Farm	3	data not available/comparison not meaningful
Historic Western Ranch/Dude Ranch	1	data not available/comparison not meaningful

source: Colorado Travel Year 2006 Final Report, Longwood's International, 2007

Table 10: Sports and Recreation Preferences of Colorado Leisure Travelers

Sport/Recreational Activity	% of Colorado Travelers	% of Travelers Nationwide
Skiing	15%	8%
Hiking/Backpacking	14	8
Swimming in a Pool	10	14
Sauna/Hot Tub	10	8
Fishing	6	5
Mountain Climbing	5	1
Indoor Fitness Center	4	4
Mountain Biking	4	4
Jogging/Running	3	4
Birdwatching	3	2
Golf	3	3
Hunting	3	1
River Rafting	3	1
Horseback Riding	2	2
Bicycling	2	3
Snowmobiling	2	data not available/comparison not meaningful

source: Colorado Travel Year 2006 Final Report, Longwood's International, 2007

Table 11: Motivations for Choosing Out-of-Home Leisure Activities

Motivation	% Statewide	% Front Range*	% Northeast**
Unwind/Escape (mean)	82%	81%	82%
Give my mind a rest	82	81	83
Release tensions and anxieties	83	83	88
Get away from the demands of life	86	86	86
To relax	92	92	95
Experience peace and calm	89	89	88
Get away from crowds	83	83	81
Be alone	54	51	57
To be close to nature	85	84	81
Self-fulfillment (mean)	70%	68%	67%
Learn about new things	74	73	72
Develop my skills and abilities	56	54	59
To exercise and keep fit	72	71	55
Experience new and different things	77	75	83
Socialize (mean)	68%	67%	77%
To spend time with my family	88	87	95
Be with friends	79	79	93
To meet new people	38	35	44
Thrill-seeking (mean)	51%	48%	49%
To take risks	32	30	27
To experience thrills	48	44	48

Motivation	% Statewide	% Front Range*	% Northeast**
and excitement			
To experience new challenges	58	57	51
Be my own boss	64	60	69

source: Colorado Statewide Comprehensive Recreation Plan (SCORP), 2003

*Colorado's Front Range Region is defined as the counties of Adams, Arapahoe, Boulder, Clear Creek, Denver, Jefferson, Larimer and Weld

**Colorado's Northeast Region is defined as the counties of Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington and Yuma

Table 12: Motivations for Visiting State Parks

Reason for Visiting State Park	% Northeast Region	% Local Residents	% Tourists
To unwind/relax	21%	17%	29%
Spend time with family and friends	40	42	37
Spend time on my own, get away from crowds	1	1	1
To stay fit/exercise	1	1	1
To blow off steam	1	1	1
To be close to nature	2	2	2
View the scenery	5	5	5
To participate in a recreational activity I love	21	21	23
To do something different	3	4	3
To get away from the usual demands of life	7	8	5

source: Colorado State Parks Market Assessment Study, 2003

Table 13: Information Sources Used by Overnight Pleasure Travelers in Colorado

Information Source	% of Colorado Overnight Travelers Using
Personal Experience	38%
Online/Internet	37
Advice from Friends/Relatives	29
Hotel/Resort	14
Airline/Commercial Carrier	12
Visitors' Bureau	9
Auto Club	6
Magazines	5
Toll-free Number	7
Newspaper	4
Government Tourism Office	2
Travel Agent	4
Association/Club	3
Television	1
Adventure Travel Company	1
Radio	1
Group Tour Company	1
Travel or Ski Show/Exhibition	<1%

source: Colorado's Heritage Tourism, Travel Year 2003, Longwood's International, 2004

Readers are cautioned that a direct comparison between the data in Tables 13 and 14 is probably not valid due to differences in the sample population, sampling techniques and dimensions measured (the state park survey, for instance, did not include the “personal experience” dimension while it included “billboards,” which is not found on the survey of statewide overnight pleasure travelers). The State Park survey, as well, focused on the planning of “leisure activities” while the overnight pleasure traveler survey focused on overall trip-planning (which would include choices of transportation, lodging and so forth, not just activities). But it is worthy of note that, in both cases, word-of-mouth and the internet are among the top three information sources.

Table 14: Information Sources Used by Colorado State Park Users

Information Source	% of State Park Users, Statewide	% of State Park Users, Front Range	% of State Park Users, Northeast
Recommendations from Family/Friends	87%	87%	83%
Newspapers	62	64	45
Television	43	44	41
Internet	40	45	19
Radio	37	36	35
Entertainment Magazines	20	20	20
Billboards	18	18	20

source: Colorado State Parks Market Assessment Study, 2003

Table 15: Colorado’s Heritage Tourism Product vs. Colorado’s Image

Heritage Attribute	% of Sample Who “Agreed Strongly” After Recently Visiting Colorado	% of Sample Who “Agreed Strongly” Who Have Never Visited Colorado
Interesting customs/traditions	50%	35%
Excellent museums/art galleries	54	32
Well-known landmarks	80	53
Noted for its history	70	47
Different cultures/ways of life	49	33
I’d really enjoy visiting/visiting again	87	61

Table 16: Information Requests at Pawnee National Grassland Office (Greeley, CO)

Subject	# of Info Requests, 2004	# of Info Requests, 2005	# of Info Requests, 2006	# of Info Requests, 2007*	Mean
Recreation (Pawnee National Grassland)	556	845	961	914	819
Crow Valley Recreation Area	234	224	363	349	292.5
Hiking Trails	40	48	82	95	265
Hunting & Target Shooting	183	209	263	229	221
Off-highway Vehicles	153	200	196	278	206.75
Birding/Wildlife-viewing	140	136	83	146	126.25
Recreation (locations other than PNG)	94	140	151	79	116
Wildflowers	33	82	18	163	74
Golden Age Passport	66	45	68	76	63.75
Equestrian Trails	40	37	24	28	32.25
Prairie Dogs	18	15	71	13	29.25
Fire Ban	19	12	47	4	20.5
Natural Resources	9	8	8	28	13.25

source: Pawnee National Grassland

*2007 totals were estimated by taking the total for the first six months of the year and doubling it, an extrapolation that is almost certainly skewed due to seasonal variability in interest.

Table 17: States of Origin of Overland Trail Museum Users, 2006-2007

State of Origin*	# of Visitors Oct. 2005-Sept. 2006	% of Total Visitation	# of Visitors Oct. 2006-Sept. 2007	% of Total Visitation
Colorado			7866	81.9%
Nebraska			358	3.7
California			162	1.7
Illinois			115	1.2
Texas			106	1.1
Arizona			74	<1%
Iowa			73	<1%
Minnesota			68	<1%
Wisconsin			64	<1%
Michigan			48	<.5%
Wyoming			48	<.5%
Florida			43	<.5%
Oregon			42	<.5%
Missouri			40	<.5%
Utah			40	<.5%
Pennsylvania			39	<.5%
Washington			39	<.5%
New Mexico			36	<.5%
Ohio			35	<.5%
New York			30	<.5%
Idaho			25	<.5%
Indiana			22	<.5%
Kansas			19	<.5%

State of Origin*	# of Visitors Oct. 2005- Sept. 2006	% of Total Visitation	# of Visitors Oct. 2006- Sept. 2007	% of Total Visitation
Oklahoma			19	<.5%
Arkansas			18	<.5%
North Dakota			17	<.5%
Virginia			17	<.5%
Montana			12	<.5%
Hawaii			10	<.5%
Mass.			10	<.5%
Nevada			10	<.5%
Tennessee			10	<.5%

source: Overland Trail Museum, Sterling, CO

*only leading 33 states are shown

Table 18: Intended Activities During a State Park Visit(s)

Activity	Front Range Region Totals	Northeast Region Totals	Local Residents	Tourists
Hiking/Walking for Pleasure	60	39	38	41
Fishing	37	43	29	72
Hunting	1	1	1	<1
Picnicking	26	44	44	46
Photography	18	17	11	30
Dog-walking	7	23	19	30
Looking at Visitor Center Exhibits	13	13	13	13
Swimming	17	39	40	37
Motorized Boating	14	34	33	33
Bicycling	11	5	4	7
Horseback Riding	1	3	2	4
Rock Climbing	4	1	1	<1
Non-motorized boating	7	4	5	<1
Naturalist-led Programs	4	5	7	2
Running	3	2	3	<1
Rollerblading	1	1	1	<1
Nature/Wildlife Observation	34	26	26	28
Camping	35	33	24	52
Dirt-bike Riding	1	2	3	<1
Off-road Vehicle Activities	2	<1	<1	<1
Spending Time w/ Family & Friends	<1	1	2	<1
Rest/Relaxation	1	1	2	<1
Work-related Activity	<1	<1	<1	<1
Attending Special Events/Activities	1	<1	<1	<1
Other	2	1	1	<1

source: Colorado State Parks Market Assessment Study, 2003

Appendix D: Gateway Concepts & Public Comments

Copies of the draft interpretive plan and five graphics depicting gateway concepts were on display for public viewing and comment at the Overland Trail Museum in Sterling, Fort Morgan Museum and Town Hall in Ault from January 22-February 1, 2008. A survey was also available on the display tables. A total of twelve responses were received to the survey, and a number of written comments. These are summarized in this appendix.

The following statements were on the first page of the survey, and respondents were asked to express whether they agreed or disagreed with the statements. Numerical rankings were assigned to the responses on a scale from 1-5 (1=strongly disagree, 5=strongly agree).

strongly disagree (1)	somewhat disagree (2)	it's just about right (3)	somewhat agree (4)	strongly agree (5)
-------------------------------	-------------------------------	-----------------------------------	----------------------------	----------------------------

The media recommendations in the plan should be revised to place greater emphasis on modern human culture, on the people who live here now.

Mean response (n=12): 2.32

The media recommendations in the plan should be revised to place greater emphasis on earlier human cultures, from the people who lived here in prehistoric times to the Dust Bowl of the 1930's.

Mean Response: 3.83

The media recommendations in the plan should be revised to place greater emphasis on natural history: shortgrass prairie ecology, wildlife and plants.

Mean Response: 3.83

The media recommendations in the plan should be revised to place greater emphasis on the geology of the region and its fossil resources.

Mean Response: 3.25

Website development should remain the first implementation priority of the plan.

Mean Response: 2.80

The plan should put greater emphasis on reaching out to regional schoolkids (through programs that support field trips with curriculum materials and place traveling exhibits in schools) as opposed to targeting media at tourists/travelers.

Mean Response: 3.05

On the second page of the survey, respondents were asked to rate five gateway concepts on a scale from 1-5 (1=don't like it at all, 5=like it a lot)

1 2 3 4 5
do not like it neither like like it a lot
at all nor dislike it

Gateway Concept #1

Mean Response (n=12): 3.75

Gateway Concept #2

Mean Response: 3.58

Gateway Concept #3

Mean Response: 3.67

Gateway Concept #4

Mean Response: 3.67

Gateway Concept #5

Mean Response: 2.25

The following written comments were received.

Sterling

We like the idea of (Gateway Concept) #1 placed in Fort Morgan. (Gateway Concept) #2 with an outhouse in the small building (legal type, of course) and the whole thing placed conveniently on the intersection close to Buckingham where the Keota road goes north so there is a rest area in that part of the byway. (Gateway Concept #4) placed at the Visitor Center (Sterling) or close by—the most visible spot.

(Gateway Concept #2 is) attention-getting.

(Gateway Concept) #2 with a unisex toilet about halfway along the byway would be great

(Gateway Concept) #4—like the direction aspect

? by sandstone, do you mean the native rock of the area, I hope?

? website & movies a better idea than exhibits that need moving, etc.

? Visitors complain there is nothing to see on Hwy#14. Would some small directional signs to natural features along the way be helpful?

? Are the concepts sharp enough to catch the eye of the 80 MPH tourist?

Really takes quite awhile to go over all the material. This will cost a lot of money but has some good points. I especially like the kiosks with stone incorporated.

The info about Summit Springs should be selective because the owner had to put a locked gate to the entrance because of vandalism.

Would like to see some native stones/rocks incorporated into (Gateway Concept) design 2—which is my favorite! If placed well away from other building, this is by far the most eye-catching & goes along with the rural concept. (Gateway Concept) Number 3 is also very attractive.

Especially like the view of Pawnee Buttes. If they are on the kiosk as large as the drawing, they would catch the attention of people driving the route.

Fort Morgan & Ault

no written comments received

The five gateway concepts are reproduced on the following pages.

