

FREDONIA-VERMILION CLIFFS SCENIC ROAD CORRIDOR MANAGEMENT PLAN



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Prepared for:

Arizona Department of Transportation
Transportation Enhancement and Scenic Roads Section
1615 W. Jackson St.
Phoenix, AZ 85007

Prepared by:

Intrinsic Consulting, LLC in partnership with Aztec Engineering and Corral Dybas Group

Sponsored by:

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FOREWORD

MAY 15, 2012

The following document was prepared in 2008-2009. In addition to field reviews and available research, significant information was obtained from public opinion and concerns voiced during the public and Citizen Advisory Committee meetings held along the route.

The primary objective of this report is to document desired efforts along the Fredonia-Vermilion Cliffs Scenic Road that will sustain its resources for future generations. Additionally, this document fosters the necessary relationships required to promote and protect the intrinsic qualities that define this scenic road experience.

The Fredonia-Vermilion Cliffs Scenic Road Corridor Management Plan Team would like to thank all the participants from the various communities and resource agencies that spent their time and energy to attend meetings, review and comment on the Corridor Management Plan (CMP) and for their overall knowledge, expertise and experiences shared regarding this scenic roadway.

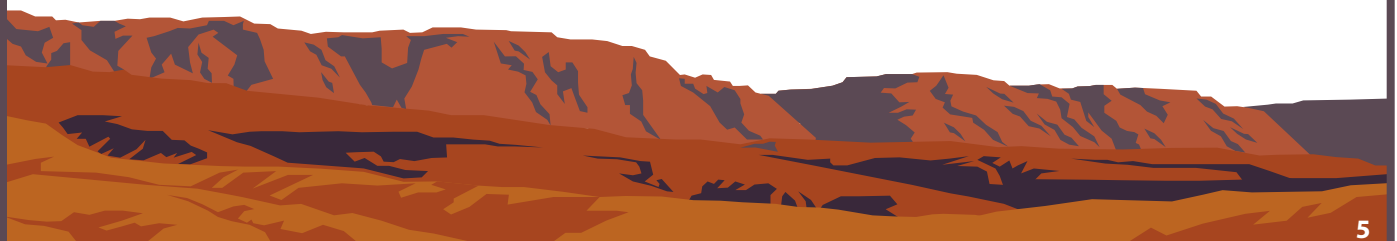


TABLE OF CONTENTS

Foreword	5
Introduction	9
Vision Statement	11
Byway Story	11
Existing Conditions	14
Intrinsic Qualities	38
Goals & Objectives	75
References	88
Appendix A – Visitor Safety Information	A1
Appendix B – Public Involvement	B1
Appendix C – Funding Sources	C1
Appendix D – Arizona Transportation Enhancement Program	D1
Appendix E – National Scenic Byways Program	E1
Appendix F – ADOT/PHSRAC Review Procedures	F1
Appendix G – Land Ownership and Intrinsic Qualities Maps	G1

INTRODUCTION

Corridor Management Planning is the process in which a community develops a plan to manage a state-designated scenic road. The resulting document describes the route's existing conditions, presents the intrinsic qualities that draw residents and visitors to the corridor and outlines strategies to preserve and enhance these qualities.

The Federal Highway Administration (FHWA) lists 14 components that are required in any CMP submitted for designation as a National Scenic Byway and recommends these elements even if the applicant does not seek national designation:

1. A map identifying the corridor boundaries and the location of intrinsic qualities and different land uses within the corridor.
2. An assessment of such intrinsic qualities and of their context.
3. A strategy for maintaining and enhancing those intrinsic qualities. The level of protection for different parts of a National Scenic Byway or All-American Road can vary, with the highest level of protection afforded those parts which most reflect their intrinsic values. All nationally recognized scenic byways should, however, be maintained with particularly high standards, not only for travelers' safety and comfort, but also for preserving the highest levels of visual integrity and attractiveness.
4. A schedule and a listing of all agency, group and individual responsibilities in the implementation of the corridor management plan, and a description of enforcement and review mechanism, including a schedule for the continuing review of how well those responsibilities are being met.
5. A strategy describing how existing development might be enhanced and new development might be accommodated while still preserving the intrinsic qualities of the corridor. This can be done through design review, and such land management techniques as zoning, easements and economic incentives.
6. A plan to assure ongoing public participation in the implementation of corridor management objectives.
7. A general review of the road's or highway's safety and accident record to identify any correctable faults in highway design, maintenance, or operation.
8. A plan to accommodate commerce while maintaining a safe and efficient level of highway service, including convenient user facilities.
9. A demonstration that intrusions on the visitor experience have been minimized to the extent feasible, and a plan for making improvements to enhance that experience.
10. A demonstration of compliance with all existing local, state and federal laws on the control of outdoor advertising.
11. A signage plan that demonstrates how the state will insure and make the number and placement of signs more supportive of the visitor experience.
12. A narrative describing how the National Scenic Byway will be positioned for marketing.
13. A discussion of design standards relating to any proposed modification of the roadway. This discussion should include an evaluation of how the proposed changes may affect the intrinsic qualities of the byway corridor.
14. A description of plans to interpret the significant resources of the scenic byway.

VISION STATEMENT

To provide a safe, modern highway, while preserving the predominantly natural and remote character of the corridor.



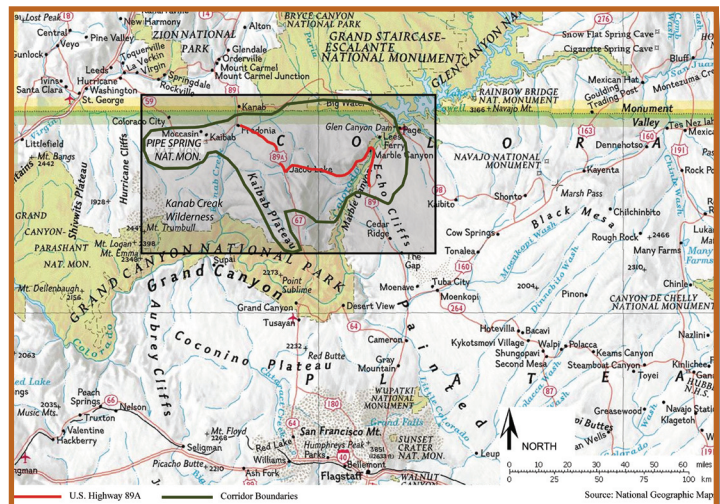
THE BYWAY STORY

General Route Description

Traveling north from U.S. Highway 89 at Bitter Springs on the Navajo Nation, U.S. Highway 89A runs along the Echo Cliffs through Hamblin Wash at an elevation of approximately 5,100 feet for about 15 miles. It then turns west onto the Navajo Bridge. The Navajo Bridge is about 467 feet above the Colorado River. The roadway then enters the Arizona Strip and winds southwest to west for 30 miles through House Rock Valley until it climbs the Kaibab Plateau to an elevation of more than 7,900 feet. Thirty miles later, the roadway descends onto White Sage Flats and continues another 30 miles north into Fredonia at an elevation of about 4,600 feet.

The Byway Story

The story of U.S. Highway 89A from Bitter Springs to Fredonia, Arizona, is a saga of exploration and travel. It follows the trails used by prehistoric people, Native Americans, Spanish explorers, ranchers, miners and traders. Lands east and west of the Colorado River were explored by Europeans as early as 1776. Euro-American exploration began in 1864 when members of the Church of Jesus Christ of Latter Day Saints (LDS), or Mormons, began crossing the river at Lees Ferry to settle Arizona and New Mexico.



Fredonia-Vermilion Cliffs Scenic Road Regional Map and Corridor Boundaries

Upon completion of the LDS Temple in St. George in 1877, pioneers began retracing their steps to have their marriages solemnized in the new temple. The perilous journeys were made by horse, farm wagon, buggies or surreys from LDS colonies in Arizona and northern Mexico. The travelers crossed the Colorado River at Lees Ferry. The St. George Temple was the only temple in existence west of the Mississippi River when the LDS colonies started and required several weeks of travel for many. Wagons were loaded with food staples, water and feed for the animals. Arizona historian Will Barnes first coined the term for the trail, the "Honeymoon Trail." The LDS maps and place names are still used today.

From Bitter Springs, U.S. Highway 89A meanders north for 20 miles along Hamblin Wash at the foot of the Echo Cliffs. The roadway passes bead stands and hogans that are part of the Bodaway Gap Chapter of the Navajo Nation, an area famed for traditional Storm Pattern hand-woven rugs.

The road turns west onto the 1995 Navajo Bridge. Here the traveler leaves Navajo land and enters the Arizona Strip. This isolated section is separated from the rest of the state by the chasm formed by the Colorado River and the Grand Canyon. Visitors stop at the Glen Canyon National Recreation Area Navajo Bridge Interpretive Center to enjoy the view and the experience of walking out over the yawning chasm on the 1928 Navajo Bridge – now reserved for pedestrians – which took the place of the upriver Lees Ferry crossing.

Arizona historian Sharlot Hall can be credited with keeping this strip of land, which lies between the Colorado River and the Utah state line, in Arizona rather than Utah. Sent by the territorial governor in Prescott, her 1911 exploratory trip and extensive documentation convinced early Arizona legislators not to make good on their inclination to release this “land apart” to the state of Utah.

A few hundred feet beyond the bridge is the road to historic Lees Ferry, the only road access to the Colorado River for hundreds of miles in either direction. Lees Ferry is a mecca for river runners and fisher(women), history buffs, campers, hikers and sightseers.



View of Marble Canyon/Colorado River from the historic Navajo Bridge

As U.S. Highway 89A continues southwest by west along the base of the Vermilion Cliffs, it passes the sparse, privately held land of businesses and private homes at Marble Canyon and Vermilion Cliffs in Badger Creek Canyon, and Cliff Dwellers near Soap Creek Canyon. Two airstrips are located along this stretch of the road – a private dirt landing strip on Bureau of Land Management (BLM) land; and a public paved airstrip on privately owned land. Hikers will find stiles and gated access to the Vermilion Cliffs National Monument, Marble Canyon within Grand Canyon National Park and BLM-managed lands. The Rock Houses found near Soap Creek are original trading post buildings built around standing hoodoo rock formations, a popular pullout spot for travelers and Navajo vendors.



Large boulder near roadway at Soap Creek

Beyond Cliff Dwellers, the road moves into ranchlands. Sheep were originally grazed here by settlers. Graffiti found in the Kaibab Forest, with just a few exceptions, are from local cowboys, mostly from LDS families who settled Fredonia, Arizona, and Kanab, Utah. Unsuccessful beefalo (buffalo/cattle hybrid) ranchers left the area long ago. An Arizona Game and Fish Department (AGFD) visitors' site known as House Rock Valley Wildlife Area

has an exhibit kiosk. Now, cattle ranchers share habitat with species such as desert bighorn sheep, pronghorn and an American Bison herd.

Another human activity over the years on the Arizona Strip is mineral mining. Early miners sought gold, silver and petrified wood; later uranium was mined. Some claims are still active, but there is currently no mining activity. The modern traveler on U.S. Highway 89A will slip by these sites unaware of their existence, as they are nestled in the cliffs above and the valley and canyons below.

The turnoff for the Dominguez-Escalante Historical Site is at about milepost (MP) 558. Exhibits commemorate a camping place for the two Franciscan friars and their followers who trekked from Santa Fe to find a route to Monterey, California in 1776. Nearby is a spring and cabin that was occupied by Rachel Lee, one of several wives to John D. Lee of Lees Ferry fame. The cabin is a quiet spot where western author Zane Grey is reputed to have stayed to write one of his now classic Western novels. The spring and cabin are located on private land with no public access.

Just before U.S. Highway 89A begins its ascent onto the Kaibab Plateau, two ranch houses plus a trailer barn sit at the junction with House Rock Valley Road. This road partially follows the route of the old “winter road” to Utah (used in the winter to travel around the north end of the Kaibab Plateau when deep snow prevented travel over the plateau now known as BLM Road 1025).

BLM Road 1065 takes visitors north along the base of the Vermilion Cliffs to the release site for the California condor, a re-introduction effort begun in 1996 that continues today. Along the fence line adjacent to the site can be seen remnants of the LDS Honeymoon Trail. Along the base of the cliffs are also springs important to travelers in bygone eras and still essential for life in this arid part of northern Arizona. Several world-famous hiking trailheads can be found just across the border in Utah (Wire Pass and Buckskin). Permits are required for access to these spectacular slot canyon trails; find more information at <http://www.blm.gov/az/st/en/arolrsmain/paria.html>. *Note:* Not all the hiking trails require permits. The Navajo Trail (actually the Hopi/Paiute Trail), which crosses Forest Service land and does not require a permit, is located on the west side of the road and traverses the northern end of the Kaibab Plateau.

Following a steep and winding route up the Kaibab Plateau, U.S. Highway 89A offers panoramic views over House Rock Valley and Vermilion Cliffs from the overlook. The road crests at Jacob Lake, a corner of privately owned businesses where State Route (SR) 67, the Kaibab Plateau North Rim Parkway, turns southward to the North Rim of the Grand Canyon. A U.S. Forest Service (USFS) visitor center is here along the Kaibab Squirrel National Natural Landmark. U.S. Highway 89A continues to wind north, opening to the spectacular sight of the Grand Staircase-Escalante National Monument. Le Fevre View Point offers a comfort stop and a panoramic view of the geologic steps of the Grand Staircase to the north. The road also passes an area where charred trees note the location of the Warm Fire in 2006 and past trailheads for two regional trails, the Arizona Trail and the Great Western Trail. Some of the road crosses unfenced



Grand Staircase in the distance,
view from Le Fevre Overlook

cattle grazing leases. *Note:* Jacob Lake Inn is a private business; however, it is located on Forest Service lands and operates under a special use permit.

The public resources within the U.S. Highway 89A corridor are highly valued by the local residents and regional tribes. Native Americans use local herbs in ceremonies and for medicinal purposes and native seeds are harvested with permits for use on reclamation reseeding projects. Timber is economically important for firewood and the local lumber mill in Fredonia. Wood is obtained from the Kaibab forest for forest burns and prescribed log removals. The Kaibab Forest is also home to a highly prized old-growth forest that supports a world-famous big-game hunting of mule deer. On non-National Park Service (NPS) and wilderness land along the corridor, hunting of bison, bighorn sheep, mountain lion and various small game species is allowed.

U.S. Highway 89A is a gateway to the Colorado River and to the North Rim of the Grand Canyon. The Colorado River is the whitewater entry to back country Grand Canyon. Tourism is a primary foundation of the economic stability of this corridor and shapes the businesses that flourish here: guide services, river outfitters, lodges and tourist services. Movies, commercials and advertisements have been filmed along this corridor, such as “Smokey and the Bandit” and “Maverick.” Artists of all types are attracted to this spectacular area. A few stay and become locals, while others visit as often as they can. People have come here by foot, bicycle and horseback, pull cart and wagon, buses, airplanes, boats and automobiles, all part of the ongoing saga of exploration and travel.



US 89A as it passes through House Rock Valley at the base of the Vermilion Cliffs

EXISTING CONDITIONS

Environmentally Sensitive Lands

Environmentally sensitive lands are those that are protected due to their unique values such as habitat for pronghorn, Kaibab mule deer, goshawk, California condor, Southwestern willow flycatcher, humpback chub and Mexican spotted owl. Many of these animals are threatened, endangered or sensitive species. Within this corridor, the majority of the area is managed by the United States Forest Service or United States Bureau of Land Management and includes a national landmark, monuments, park and recreation area, wilderness, game preserve and properties listed on the National Register of Historic Places.

The Colorado River corridor is canyon-bound for its entire length below Glen Canyon Dam with the exception of Lees Ferry, where the river is accessible by road due to a natural break in the landscape. Within the Grand Canyon the river is strongly influenced by Glen Canyon Dam which is located approximately 15 miles upstream of Lees Ferry. The land and river above the Paria River is within the Glen Canyon National Recreation Area. The Colorado River is within the Grand Canyon National Park below the confluence with the Paria River near Lees Ferry. The Grand Canyon National Park was recognized as a World Heritage Site in 1979. Immediately downstream from Lees Ferry the river begins to downcut through uplifted terrain, slicing through ever-deeper rock layers until the canyon walls rise over a mile above river level. The Colorado River basin is home to 14 native species of fish.

The narrow slot canyons of Paria Canyon and Buckskin Gulch form deep fissures along the cracked and rust-colored landscape of the Paria Plateau. Below the confluence of these two quintessential slot canyons, the stark walls confining Paria Canyon slowly diverge to reveal lush and diverse streamside vegetation as the Paria River flows downstream from its confluence with Buckskin Gulch to the Colorado River. This section of Paria Canyon is 1) designated as wilderness; 2) part of the Vermilion Cliffs National Monument; 3) eligible for Wild and Scenic River designation due to its spectacular scenery, rugged terrain and remote access; and 4) The western rim forms portions of the eastern border of the Kane and Two Mile ranch allotments. Paria Canyon and its tributaries include some of the most intriguing places on the Colorado Plateau due to their unique and magnificent geological formations, high diversity of endangered, sensitive and native species, and rich cultural and historical significance.

The Paria River is the first tributary to enter the Colorado River below Glen Canyon Dam and Lake Powell, making it a critical source of sediment and nutrients to the endangered native fish that live in the upper reaches of the Grand Canyon. The Paria River is also one of the few remaining large and free-flowing streams in the American Southwest, with only minimal amounts of water taken out for agriculture in the summer months.

Through much of the canyon, riparian areas host a wide diversity of native willows, box elder, cottonwood and ash trees, but sections of the river are becoming increasingly dominated by tamarisk and Russian olive in the lower portions of the river near Lees Ferry.

The 112,500-acre Paria Canyon-Vermilion Cliffs Wilderness lies approximately 10 miles west of Page, Arizona, in Coconino County, Arizona, and Kane County, Utah. Designated as a wilderness area in 1984, it is nationally known for its beauty. Paria Canyon has towering walls streaked with desert varnish, huge red rock amphitheaters, sandstone arches, wooded terraces and hanging gardens. The 3,000-foot escarpment known as the Vermilion Cliffs dominates the remainder of the wilderness with its thick Navajo sandstone face, steep, boulder-strewn slopes, rugged arroyos and stark overall appearance. Deer and desert bighorn sheep are known to inhabit this area.

In the northwest portion of Paria Canyon-Vermilion Cliffs Wilderness and at the bottom of Utah's Grand Staircase-Escalante National Monument lies Coyote Buttes Special Management Area. This area offers spectacular scenery displaying domes, aprons, fins, corridors and a variety of small, fragile rock sculptures carved in colorful swirling cross-bedded sandstone. The Coyote Buttes Special Management Area includes the North Coyote Buttes, also known as The Wave, and the South Coyote Buttes. The South Coyote Buttes contain fantastically twisted and striated sandstone. Multitudes of the beehive-shaped hills or buttes appear to be enveloped in a sea of colorful petrified waves, while other bizarre formations have been contorted into caverns, arches, domes and fragile fins.



Vermilion Cliffs Ancient Landslides

The Vermilion Cliffs National Monument remains a remote, unspoiled 294,000-acre geologic treasure of towering cliffs, deep canyons and spectacular sandstone formations containing the Paria Plateau, Vermilion Cliffs, Coyote Buttes and Paria Canyon. The 3,000-foot escarpment of the Vermilion Cliffs reveals seven major geologic formations in layer-cake fashion. The national monument is home to desert bighorn sheep, pronghorns and at least 20

species of raptors, including California condors.

At the center stage of the Eastern Arizona Strip, the majestic Vermilion Cliffs embrace the gnarled pinion and juniper trees, shifting sand dunes and swirling bands of colored sandstone of the Paria Plateau. As part of Vermilion Cliffs National Monument, the Paria Plateau boasts uncommonly high biological diversity and significant cultural resources. The plateau is at the center of the reintroduction efforts of the endangered California condor in Arizona and is home to the desert bighorn sheep and more than 20 species of raptors. There is a condor viewing area located off of House Rock Road that offers views of the release site located on the plateau.

Falling beneath the cool shadow of the Kaibab Plateau's East Monocline, the tawny desert of the House Rock Valley extends nearly 20 miles to the east, with the red ramparts of the Vermilion Cliffs to the north, and the sinuous cleft of Marble Canyon, where the Colorado River winds its way towards the Grand Canyon to the south. Paleo-Indian hunters, archaic hunters and gatherers, ancient Puebloans, nomadic Paiutes and LDS pioneers all left traces of the past scattered across the landscape. Through to the present day, the grasslands, shrublands, springs and seeps of this brittle landscape provide a home for a large number of key species ranging from pronghorn to the chisel-toothed kangaroo rat.



House Rock Valley

Rising above a sea of windswept grassland, desert scrub and pinion-juniper woodlands, and towering over the Grand Canyon's North Rim, the Kaibab Plateau has at various times been described as a sky island, as "the mountain" – by Arizona Strip locals – and as "the mountain lying down" by Paiute Indians. As with mountains elsewhere in the world, the Kaibab Plateau has for millennia served as a place of refuge and sustenance for humans and animals alike. It has, through the last several decades, become a place that stands far above the surrounding landscape and as a place of unparalleled beauty and wilderness.

The Kaibab Plateau also stands as one of the Colorado Plateau's ecological jewels. Its higher elevations contain some of the best remaining old-growth ponderosa pine forests in the region, and the densest breeding population of Northern Goshawks in North America. The renowned Kaibab mule deer herd calls the plateau home during summers, and disperses off to either side of the plateau during winter. The plateau hosts a number of threatened, endangered and sensitive species, as well as an endemic species – limited in distribution only to the plateau itself.

In 1965, 200,000 acres of Kaibab squirrel (*Sciurus aberti kaibabensis*) habitat were declared the Kaibab Squirrel National Natural Landmark. The squirrel's habitat is confined entirely to the ponderosa pine forests of the North Rim of the Grand Canyon and the northern section of Kaibab National Forest, centered around the community of Jacob Lake, Arizona. The Grand Canyon Game Preserve was established by President Theodore Roosevelt in 1906 for the protection of game animals and their breeding habitat on the North Kaibab. President Roosevelt stated "that all those lands within the Grand Canyon Forest Reserve lying north and west of the Colorado River in the territory of Arizona are designated and set aside for the protection of game animals and be recognized as a breeding place therefore." The purpose of this act was to protect the public lands of the United States and the game animals, which may be thereon, and not to interfere with the operation of the local game laws as affecting private, state or

territorial lands. The Grand Canyon National Game Preserve is targeted towards the protection of game animals, such as the Kaibab deer herd.

Accessible from the corridor is the Kanab Creek Wilderness, which encompasses 75,300-acres (6,700 administered by BLM; 68,600 administered by the USFS), which is approximately 30 miles south of Fredonia, Arizona. Dropping precipitously from the western escarpment of the Kaibab Plateau, the wind-and-water-sculpted canyon walls of Kanab Creek enclose some of the Colorado Plateau's richest cultural and ecological legacies. Ancient rock art decorates the canyon walls amid springs, seeps and hanging gardens that host a strikingly diverse array of plant and animal species. Cultural relics in Kanab Creek and its tributaries date back more than 2,000 years, when prehistoric inhabitants of the Colorado Plateau used Snake Gulch and Kanab Creek to access the Kaibab Plateau at the North Rim of the Grand Canyon from Havasu Canyon at the South Rim. The canyon cliffs are home to bands of desert bighorn sheep, as well as the American Peregrine falcon. As the largest tributary entering the Grand Canyon from the northern side, Kanab Creek is one of the few major water sources for the Arizona Strip.

The Kaibab Plateau supports the highest concentration of mule deer in Arizona. These large-bodied, large-antlered deer are a valuable resource for hunters and tourists, and an important prey species for mountain lion and other predators and scavengers, including the California condor. The west side of the Kaibab Plateau provides important winter habitat and transitional range used during seasonal migration.

As a part of environmentally sensitive lands, properties and culturally significant features listed on the National Register of Historic Places are included. There are a number of prehistoric art resources that were listed in 1992. They are Bullethead, Checkered Men, Head Hunters, Rock Family, Rocketeers, Twins, White Man Cave and Wise Men. Also listed in 1992 were a number of lookout towers also known as lookout trees. They are Cooper Ridge, Corral Lake, Fracas, Little Mountain, Tater Point, Telephone Hill and Tipover. Telephone Hill was destroyed during the Warm Fire.

Regional Patterns

The corridor does not contain any major metropolitan areas. Found within the corridor are the developed locations of Marble Canyon, Vermilion Cliffs, Cliff Dwellers, Jacob Lake and the Town of Fredonia. According to the Arizona Department of Commerce Community Profile, Fredonia's population in 2007 was 1,035, and Coconino County's population was 134,898. Population changes found that between the 2000 Census and July 1, 2008, there was an estimated 16.6 percent increase for Coconino County and a 9.1 percent increase in population for the Town of Fredonia.

Within the Pipe Spring National Monument area, the Kaibab Paiute Tribe is planning to update the existing RV park/campground facility. There are no plans for development of any other regional services or facilities. There is an existing airport in Kanab, Utah.

Land Use

The Land Ownership/Management Map in Appendix G illustrates land management and ownership of the corridor. A majority of the land is publicly owned and managed by the U.S. Forest Service, Kaibab National Forest North District and the U.S. Bureau of Land Management. The portion of land between Bitter Springs and the Navajo Bridge over the Colorado River is on the Navajo Indian Reservation. The Kaibab Band of Paiute Indians has a reservation near Fredonia. The Colorado River and the land below the rim of Marble Canyon are under jurisdiction

of the National Park Service (NPS). There is a small portion of land held in trust by the Arizona State Land Department and small parcels of private land throughout the corridor.

Traffic Data

Table A located below illustrates annual average daily traffic (AADT) volumes within certain segments of the corridor. In addition, the table shows a forecast of AADT for the year 2018 and 2028.

TABLE A. AADT FORECAST

Beg Mile Post	START	End Mile Post	END	LENGTH	AADT 2008	Forecast Years	
						AADT 2018	AADT 2028
524.07	US 89 Bitter Springs	537.96	Marble Canyon	13.89	1,137	1,285	1,435
537.96	Marble Canyon	579.30	SR 67 – Jacob Lake	41.34	996	1,125	1,255
579.30	SR 67 – Jacob Lake	607.72	Ryan Rd.	28.42	1,279	1,445	1,615
			K Factor = 15				
			D Factor = 71				
			T Factor is the percentage of the AADT volume generated by trucks or commercial vehicles. 17% (MP 524.06 to 579.30) 16% (MP 579.30 to 609.23)				

Source: Arizona Dept. of Transportation, MPD, September 2009.

Table B located below illustrates annual average daily traffic (AADT) volumes within certain segments of the corridor for a ten year period.

TABLE B. AADT TRAFFIC DATA 1999 TO 2008

Beg Mile Post	End Mile Post	AADT 1999	AADT 2000	AADT 2001	AADT 2002	AADT 2003	AADT 2004	AADT 2005	AADT 2006	AADT 2007	AADT 2008
524.07	537.96	2,281	2,400	2,400	1,800	1,300	1,400	1,200	1,321	1,151	1,137
537.96	579.30	1,135	1,200	1,200	1,600	1,100	1,100	950	1,043	995	996
579.30	607.72	1,485	1,500	1,300	1,400	1,400	1,800	1,400	1,464	1,318	1,279

Source: Arizona Dept. of Transportation, MPD, September 2009.

Table C illustrates the number and types of crashes and the types from January 2003 to December 2007 and is separated into the three segments. The crash severity is categorized into three categories from fatal to non-injury collisions. Approximately 250 accidents were documented from 2003 to 2007 (ADOT summary of motor vehicle crashes). The majority of the crashes (227) involved a single vehicle. More than half (143) of the total collisions had speeding as a contributing factor. There were seven collisions with livestock between MP 565.0 and MP 584.0. There were 33 collisions with wild game between MP 560.0 and 600.0. Collisions with livestock or wild game did

not result in any fatalities. There was one collision documented involving a cyclist, which resulted in a fatality. Of the total number of accidents 34 involved semi-trucks.

TABLE C. CRASH SUMMARY, 2003 TO 2007

Crash Type	Crash Severity	Number of Crashes by Segment		
		US 89 Bitter Springs to Marble Canyon MP 524.07 to MP 537.96	Marble Canyon to SR 67– Jacob Lake MP 537.96 to MP 579.30	SR 67 – Jacob Lake to Ryan Rd. MP 579.30 to MP 607.72
Single Vehicle	Fatal or Incapacitating Injury	2(1)*	23(5)*	14(2)*
	Non-Incapacitating or Possible Injury	4	29	21
	Non-Injury	4	78	52
Multiple Vehicle	Fatal or Incapacitating Injury	0	2	2
	Non-Incapacitating or Possible Injury	0	4	2
	Non-Injury	0	12	4
	Total	160	451	440

*Number in parenthesis is number of fatal accidents per incident.

Source: ADOT Motor Vehicle Department, Executive Services, Traffic Records, February 2009.

Safety Considerations

Currently, other safety concerns within this corridor include cyclists who use the route and semi-truck traffic. The majority of this roadway has inadequate shoulders for cyclists to use and poor sight distance around curves as the road climbs the Kaibab Plateau. The percentage of semi-truck (over 50 feet) traffic seems to have peaked in March of 2006 at nearly 13%. In September 2008, the percentage dropped to 7.5%, and in June 2009 to 3.8%. These are snapshot counts, but the trend seems down, not increasing, according to Walter (Kent) Link, P.E., ADOT, Northern Region Traffic Engineer. In addition, there was a concern about increased chance for accidents at Le Fevre Overlook. But in reviewing the accident data in that location, it does not appear that the parking lot ingress and egress is causing an increase in accidents. Drainage structures should be extended to provide adequate recovery area for disabled vehicles and would allow for future construction of shoulders. The guardrail listed in table D below is at current standards and is not in need of being replaced or extended. Nor are there plans for adding more guardrail along the roadway at this time.

TABLE D. GUARDRAIL LOCATIONS ON U.S. HIGHWAY 89A

Beg Mile Post	START	End Mile Post	END	LENGTH	Guardrail Locations (N and S denote north and south direction)
524.07	US 89 Bitter Springs	537.96	Marble Canyon	13.89	528.184-N, 528.224-S, 529.720-N, 530.370-N, 530.407-S, 532.140-N, 532.176-S, 532.263-N, 537.862-N, 537.863-S
537.96	Marble Canyon	579.30	SR 67 – Jacob Lake	41.34	538.023-S, 538.048-N, 538.086-N, 542.249-S, 542.252-N, 542.292-N, 542.318-S, 546.711-S, 546.713-N, 546.738-N, 546.773-S, 562.796-N, 562.798-S, 562.812-N, 562.865-S, 574.41 S, 574.59 S, 574.87 S, 575.50 S, 537.96, 575.62 S, 575.84 S, 576.85 N
579.30	SR 67 – Jacob Lake	607.72	Ryan Rd.	28.42	guard rail

Source: Email 1.14.2009, Thomas Kliewer and Email 1.12.2009, Steven Mackelprang

There are warning lights for pedestrian crossings at Jacob Lake. Roads can be barriers to wildlife, especially pronghorn in this area. Animals also can be a hazard to motorists.

Agencies & Organizations That Influence the Scenic Road

- Antelope Trail Vendors Organization
- Arizona Department of Public Safety (DPS)
- Arizona Department of Transportation (ADOT)
 - Scenic Byways
- Arizona Game and Fish Department (AGFD)
- Arizona State Land Department (ASLD)
- Coconino County
 - Sheriff's Department
- Federal Highway Administration (FHWA)
- Kaibab Band of Paiute Indians Reservation
- Marble Canyon Community
- National Park Service (NPS)
 - Glen Canyon
 - Grand Canyon
 - Pipe Spring National Monument
- Navajo Nation
 - Bodaway/Gap Chapter
 - Department of Transportation
 - Fish and Wildlife Department
- Town of Fredonia
- U.S. Bureau of Land Management (BLM)
 - Arizona Strip Field Office
 - Vermilion Cliffs National Monument
- U.S. Forest Service (USFS) – Kaibab National Forest

Note: List is not exhaustive; it should be added to as necessary

Topography

The corridor lies entirely within a geologic showcase for sedimentary rock that is part of the Colorado Plateau. The Colorado Plateau covers 130,000 square miles, centered in the Four Corners area of Arizona, Utah, Colorado and New Mexico (see Regional Map, page 11). This region experienced relatively rapid tectonic uplift and accelerated erosion and down cutting by rivers and streams. The result is high topographic relief and a landscape of tablelands, basins and escarpments, dissected by narrow and widely spaced stream valleys.

The southern end of the U.S. Highway 89A corridor begins on a tableland at an elevation of 5,115 feet above sea level. It immediately descends along the base of the escarpment of the Echo Cliffs and past-isolated rock promontories northward to the rim of Marble Canyon. The descent provides an expansive view to the north and west of the narrow gouge in the earth that marks the location of the Colorado River in Marble Canyon. A seemingly short distance beyond the rim is the top of the Paria Plateau. Characteristic of plateaus in the region, the gently sloping top of the plateau suddenly drops off at its rim. Narrow drainages cut their way into the red-hued rock escarpment

that forms the side of the plateau called the Vermilion Cliffs. The Vermilion Cliffs rise 3,000 feet above their base. The topography that is visible provides clues to the area's geologic past. Between the Vermilion and Echo Cliffs the terrain appears relatively level and smooth, and it is possible to envision the prehistoric lakebed that it once was.



Panoramic view of Echo Cliffs

The elevation is 3,083 feet above sea level at the Navajo Bridge where U.S. Highway 89A crosses the Colorado River and Marble Canyon. It is 3,800 feet at the base of the Vermilion and Echo Cliffs at nearby Lees Ferry. Looking down on the Colorado River in Marble Canyon from Navajo Bridge is impressive. It provides a glimpse of the canyon terrain that, on a larger scale, is exhibited in the Grand Canyon and on a much more intimate scale by the Vermilion Cliffs of the Paria Plateau.

U.S. Highway 89A does a "U" turn after Navajo Bridge and the entrance to Lees Ferry. The route is along the northern fringe of gently rolling House Rock Valley and follows along the base of the Vermilion Cliffs almost to House Rock Wash. Along the way, ancient landslides are visible at the base of the Vermilion Cliffs. Dry washes fan out over the House Rock Valley and mark how water drains away from the cliffs toward the Colorado River to the south. Huge boulders from the hard sediment layer at the top of the Vermilion Cliffs dot the ground between the road and the cliffs. They fall when the softer layers of rock below erode away. At the western end of the Vermilion Cliffs/

Paria Plateau, the elevation at the base is 5,600 feet above sea level.



Vermilion Cliffs landslides and boulders at Soap Creek

the Paria Plateau, Vermilion and Echo Cliffs, and House Rock Valley. After climbing 4,800 feet from the valley, the road reaches its highest elevation (7,295 feet above sea level) at Jacob Lake on the Kaibab Plateau. Although the

The topography changes abruptly west of House Rock Wash as U.S. Highway 89A follows a steep, winding route over the East Kaibab Monocline. This monocline is a great north-to-northeast trending fold in the sedimentary rock that created the Kaibab Plateau and forms the edge of the plateau. It is rough, rugged terrain with outcrops of light-colored limestone visible. The washes that drain the plateau are steep, and vegetation is denser and taller in the washes. On the ascent, the House Rock Valley overlook provides a panoramic view to the south and east of the distinctive topography of

plateau continues to rise to more than 9,000 feet above sea level south of the corridor toward the North Rim of the Grand Canyon. From Jacob Lake, it is downhill to Fredonia to the west and to Lees Ferry to the east.

West of Jacob Lake the road turns northward to descend along a ridge on the west side of the Kaibab Plateau, which is less steep and rugged than the east side. At the Le Fevre Overlook (elevation 6,700 feet above sea level), there are views to the north of successive multi-colored cliffs rising to 11,000 feet above sea level and that form the “Grand Staircase” and make up Grand Staircase-Escalante National Monument in southern Utah. Each set of cliffs is a different color, and the Vermilion Cliffs make up the lowest steps of this geologic staircase; the others, in order of height and distance, are the White Cliffs, Gray Cliffs and Pink Cliffs. Dropping down off the west side of the Kaibab Plateau, U.S. Highway 89A straightens out and follows rolling grasslands to the western end of the corridor just outside and east of Fredonia at an elevation of 4,671 feet above sea level.

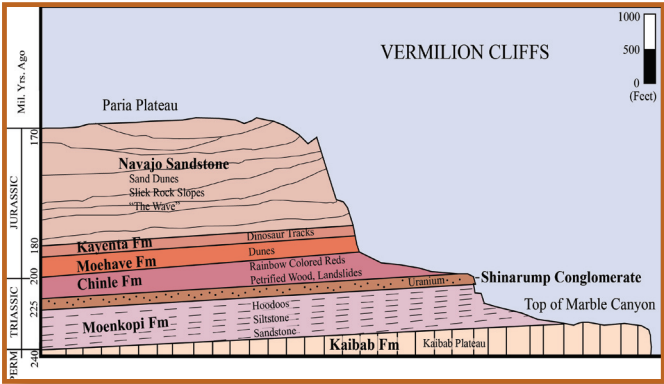


Panoramic view from LeFevre overlook

Distinctive Landforms

U.S. Highway 89A traverses some of the most scenic landforms in the West in large part because it lies on the Colorado Plateau. Throughout millions of years, different environments deposited distinct layers of sedimentary material that became rock of various thickness, color and hardness. When the land was uplifted or surfaces exposed by the erosion of rivers and streams, the sedimentary rocks of the Colorado Plateau retained sufficient thickness to maintain the horizontal positions in which the different layers of sediment were deposited. When these layers are exposed, the visual effect is spectacularly colorful and,

Vermilion Cliffs-Stratigraphic Column



due to differential weathering, the physical shape is interesting and distinctive.



Map of Paria Plateau on a BLM exhibit

Paria Plateau, Vermilion Cliffs, Echo Cliffs

The rock layer at the rim of Marble Canyon that also forms the surface of the Kaibab Plateau is a sandy, light-colored limestone called the Kaibab Limestone Formation. It dates back 230 million years. Younger rock is layered above it, but along the corridor most of these layers have been eroded away. Older sedimentary rock lies below it and is visible on the walls of Marble Canyon.

At the same time that the Colorado River was cutting downward through sedimentary rock layers, faults in the earth allowed areas such as the Paria Plateau to be uplifted. Remnants of these missing rock layers are found in the six distinct geographic layers visible in the Vermilion Cliffs.

The oldest (and lowest) of the sediment bands exposed along the U.S. Highway 89A corridor above the rim of the Grand Canyon is the Moenkopi formation, which has its genesis in the Triassic Period, the time of dinosaurs and retreating inland seas. The Moenkopi formation is composed of reddish brown mudstone deposited by streams and tidal flats, often showing ripple marks. The Moenkopi ended when uplifting cut the region off from the seas to the west and environmental conditions allowed rivers to flow across the Colorado Plateau. Their deposits of sand, silt and gravel resulted in the Chinle Formation. Often forming a capstone on isolated rock formations in the corridor is a layer of unsorted material ranging from sand to cobbles called the Shinarump Conglomerate, the lowest level of the Chinle Formation. Uranium deposits may be found in this layer.



Cliff colors

Most of the Chinle is made up of multicolored shales. The bright colors are caused by iron impurities. Above the Chinle Formation in successively younger layers are the Moenave Formation, made up of siltstones and sandstones in various shades of red, orange and reddish brown, and the Kayenta Formation composed of reddish brown siltstone and sandstones, forming blocky horizontally bedded cliffs. These layers sometimes contain fossils and dinosaur tracks.

The topmost layer is the Navajo Sandstone Formation, which is showcased in the Vermilion Cliffs, Echo Cliffs and the towering cliffs of Glen Canyon north of Lees Ferry. This layer is approximately 1,500 feet thick and made of massive tan to pale orange cross-bedded sandstone.

Marble Canyon

Marble Canyon is a narrow, steep-sided segment of Colorado River canyon that extends from Lees Ferry to the Little Colorado River and the beginning of the Grand Canyon. Marble Canyon was so named because the rock walls are scoured to resemble marble. Several layers of sedimentary rock form distinctive step-like benches on the canyon walls.



Marble Canyon

The youngest layer (250 million years old) is the one at the rim, which is light-colored Kaibab Limestone. The Toroweap and Coconino Formations form the upper cliff; the Hermit Shale forms the slope half way down; and the Supai Group forms the cliff down to river level. The Kaibab Limestone also underlies most of the ground surface in the House Rock Valley.

Marble Canyon is a good example of the type of canyon that forms on the Colorado Plateau. These canyons were formed

relatively quickly in geologic time and tend to be narrow and deep, a testament to the erosive power of water dropping from a high elevation and sawing through sedimentary rock in desert terrain with scant vegetation.

Slot Canyons

Slot canyons are carved and polished by flash floods over millions of years. They are frequently quite narrow with walls only a few feet apart and so high and steep that sunlight only enters when the sun is overhead. No slot canyon is visible from U.S. Highway 89A, but the road provides access to a number of slot canyons that are popular hiking destinations. Some of the most scenic are located in the Paria Canyon-Vermilion Cliffs Wilderness, but slot canyons in Marble Canyon leading to the Colorado River are accessible at Cathedral Wash from Lees Ferry and at Bader Creek and Soap Creek from U.S. Highway 89A.

Hoodoos

Visible from U.S. Highway 89A at Soap Creek near Cliff Dwellers and on the access road to Lees Ferry, there is a landscape of interesting balanced rocks called hoodoos. The unusual shapes form when the softer rock below, usually shale, erodes faster than the harder rock above. Hoodoos are an example of the process known as “differential erosion” that has shaped much of the distinctive landforms seen along the corridor.

Kaibab Plateau

Kaibab is the Paiute name for “mountain lying down.” The early LDS pioneers called the plateau “Buckskin Mountain” because of its mule deer herd. The Kaibab Plateau is one of four plateaus on the north side of the Grand Canyon that are part of the larger Colorado Plateau. Its underlying sedimentary rock is the Kaibab Limestone. The Kaibab Plateau is home to the highest remaining density and distribution of old-growth ponderosa pines in the Southwest. Its lands are managed by the NPS and the USFS. The landscape is not as spectacular as the exposed rocks seen along the corridor to the south, but it has more abundant wildlife and more recreational options.



Hoodoo and roadside vendors at Soap Creek

Climate

The corridor passes through semi-arid valleys to higher forested plateaus that see rain and snow, punctuated with multi-year droughts. Along the corridor there are different microclimates. The southern end of the corridor is drier and warmer than the higher elevation of the forested Kaibab Plateau at the northern end. The average annual precipitation on the Kaibab Plateau is 27 inches; it is barely more than six inches at Lees Ferry. In winter, the snowpack can exceed 10 feet on the Kaibab Plateau; at Lees Ferry it might snow a total of two inches a year, but it doesn't last long enough to accumulate. There can be a 20-degree difference or more in temperature between Lees Ferry and Jacob Lake; in mid-summer at Lees Ferry, the temperature can reach 100 degrees, while it can be less than 80 degrees at Jacob Lake.

Rain, when it falls, often comes as mid- to late-summer monsoon storms, pouring hard and fast. Much of the water

runs off over the ground surface, cutting deeply into the land and helping to sculpt the terrain. Flash flood danger is highest in July, August and September due to thunderstorms, but they can happen at any time of the year. The slot canyons, particularly Paria Narrows and Buckskin Gulch, are the most dangerous areas, but flash floods can occur down any drainage channel. Evidence of flash floods is visible in displaced boulders and uprooted trees in the washes crossed by the road at Trail Canyon near the Warm Fire at Milepost 573 to 577. Keep an eye out for beautiful but short-lived waterfalls.

Water

In this arid region, water is a focal point for humans, wildlife and vegetation. Even the smallest trickle of water is an oasis. The Kaibab Limestone beneath House Rock Valley and the Kaibab Plateau is porous. Lying in a small depression is the only permanent natural lake in the corridor, Jacob Lake. Jacob Lake more closely resembles a pond. It is located a mile north of the junction of U.S. Highway 89A and SR 67 on private land. Within the sphere of influence along the U.S. Highway 89A corridor are two rivers, the Paria and the Colorado. The Paria River only has permanent flow in its lower reaches above Lees Ferry. Visitors access the river from U.S. Highway 89A by hiking from trailheads near Lees Ferry or in Utah at the northern end of BLM Road 1065 west of the Paria Plateau.

The Colorado River is the main artery of the Colorado Plateau. It flows from its headwaters in Wyoming's Wind River Range to the Gulf of California. Its waters are allocated to the upper basins of Colorado, Wyoming, Utah and New Mexico and the lower basin states of Arizona, Nevada and California, and to Mexico. Glen Canyon Dam was completed in 1964 approximately 15.5 miles upstream of Lees Ferry to regulate lower basin water delivery.

As a result of the Grand Canyon Protection Act of 1992, the dam is operated to protect and lessen adverse impacts and improve the values for which the Grand Canyon National Park and Glen Canyon National Recreation Area were created. Thus, while the dam is principally operated to generate electrical power, flows from the dam are regulated to protect natural resources downstream. In practice, this has not been without controversy, and there have been a number of legal, political and environmental issues that affect the daily and seasonal river fluctuations. They, in turn, impact the river's contribution to the intrinsic recreational, scenic and natural qualities of the U.S. Highway 89A corridor. Glen Canyon via the Colorado River is accessed by vehicle or boat at Lees Ferry or by hiking primitive trails in side canyons of Marble Canyon.

There are no wetlands or riparian zones inventoried along the corridor except small areas near the rivers and springs.

In addition to the Colorado River, the other major sources of water for human use along the corridor are from a number of developed springs along the Vermilion Cliffs and on the Kaibab Plateau. For instance, the natural water sources for the Town of Fredonia come from Cottonwood Canyon. The three main water sources that come from Cottonwood Canyon are the South Fork of Indian Canyon, Indian Canyon and Main Water Canyon. Water for human use for the Kaibab Band of Paiute Indians comes from the San Juan River. The Navajo Nation's main water sources are natural springs, aquifers and wells. Water for the Jacob Lake community is not from Jacob Lake but from springs some distance away that is piped or trucked to storage tanks. Access to natural springs is limited; many are on private land or require a hike over unmarked trails.

Water for cattle and horses on private land and in grazing allotments on public land comes from developed springs, lined pools to catch and hold rainfall and/or stock tanks that can be filled by water trucks. Water for wild-

life comes from the Colorado and Paria Rivers, Jacob Lake, stock tanks, springs and seeps, and natural catchments in rock for rainwater.

Wildlife and Fish

With so much of the land in public ownership and little private development, the forests of the Kaibab Plateau, the riparian habitat by the permanent water sources and the more arid terrain elsewhere along the corridor support a wide variety of native and non-native wildlife and fish, which draws visitors to the corridor. On non-tribal and non-National Park land, the public lands are managed by the USFS (Kaibab National Forest), BLM and the NPS. The U.S. Fish & Wildlife Service (USFWS) works with state and federal agencies and other partners for conservation and recovery of threatened or endangered species, their habitats and protection of migratory birds. The Arizona Game & Fish Department manages wildlife. On tribal land, the tribe manages wildlife and wildlife habitat. USFWS should be consulted when any roadway improvements are planned. Any developments or increased use of the roadway should take species protection into account. Listed in Table E below are species protected under the Endangered Species Act as well as sensitive species protected by USFS, BLM, AZGFD, and Navajo Nation.

TABLE E. SPECIAL STATUS SPECIES WITHIN 5 MILES OF U.S. HIGHWAY 89A

NAME	COMMON NAME	ESA	USFS	BLM	STATE	NAVAJO
<i>Accipiter gentilis</i>	Northern Goshawk		S		WSC	
<i>Aquila chrysaetos</i>	Golden Eagle					NESL - G3
<i>Asclepias welshii</i>	Welsh's Milkweed	LT				NESL - G3
<i>Astragalus beathii</i>	Breath Milk-vetch					
<i>Astragalus cremnophylax var. hevroni</i>	Marble Canyon Milk-vetch					NESL - G3
<i>Astragalus cremnophylax var. myriorrhaphis</i>	Cliff Milk-vetch		S	S	SR	
<i>Athene cunicularia hypugaea</i>	Western Burrowing Owl			S		
<i>Buteo regalis</i>	Ferruginous Hawk					NESL - G3
<i>Catostomus latipinnis</i>	Flannelmouth Sucker		S	S		
<i>Cinclus mexicanus</i>	American Dipper					NESL - G3
<i>Corynorhinus townsendii pallescens</i>	Pale Townsend's Big-eared Bat					
<i>Coryphantha missouriensis</i>	Missouri Corycactus				SR	
<i>Dipodomys microps leucotis</i>	Houserock Valley Chisel-toothed Kangaroo Rat				WSC	
<i>Echinocactus polycephalus var. xeranthemoides</i>	Grand Canyon Cottontop Cactus				SR	
<i>Empidonax Empidonax traillii extimus</i>	Southwestern Willow Flycatcher	LE	S		WSC	NESL - G2
<i>Euderma maculatum</i>	Spotted Bat				WSC	
<i>Eumops perotis californicus</i>	Greater Western Bonneted Bat					
<i>Falco peregrinus anatum</i>	American Peregrine Falcon		S		WSC	
<i>Gila cypha</i>	Humpback Chub	LE			WSC	NESL - G2
<i>Gymnogyps californianus</i>	California Condor	LE, XN			WSC	NESL - G4
<i>Haliaeetus leucocephalus (wintering pop.)</i>	Bald Eagle		S		WSC	NESL - G2
<i>Idionycteris phyllotis</i>	Allen's Big-eared Bat			S		

NAME	COMMON NAME	ESA	USFS	BLM	STATE	NAVAJO
<i>Mustela nigripes</i>	Black-footed Ferret	LE				NESL - G2
<i>Myotis ciliolabrum</i>	Western Small-footed Myotis			S		
<i>Myotis evotis</i>	Long-eared Myotis			S		
<i>Myotis occultus</i>	Arizona Myotis			S		
<i>Myotis thysanodes</i>	Fringed Myotis			S		
<i>Myotis volans</i>	Long-legged Myotis			S		
<i>Nyctinomops macrotis</i>	Big Free-tailed Bat			S		
<i>Opuntia basilaris</i> var. <i>aurea</i>	Yellow Beavertail				SR	
<i>Opuntia basilaris</i> var. <i>longiareolata</i>	Grand Canyon Beavertail Cactus				SR	
<i>Opuntia nicholii</i>	Navajo Bridge Cactus				SR	
<i>Ovis canadensis</i>	Desert Bighorn Sheep					NESL - G3
<i>Pediocactus bradyi</i>	Brady Pincushion Cactus	LE			HS	NESL - G2
<i>Pediocactus paradinei</i>	Paradine (Kaibab) Plains Cactus	CA	S	S	HS	
<i>Pediocactus peeblesianus</i> var. <i>fickeiseniae</i>	Fickeisen Plains Cactus	C	S		HS	
<i>Pediocactus sileri</i>	Siler Pincushion Cactus	LT		S	HS	
<i>Rana pipiens</i>	Northern Leopard Frog					NESL - G2
<i>Rhinichthys osculus</i>	Speckled Dace	S				
<i>Sclerocactus parviflorus</i> ssp. <i>intermedius</i>	Intermediate Fishhook Cactus				SR	
<i>Sclerocactus parviflorus</i> ssp. <i>parviflorus</i>	Smallflower Fishhook Cactus				SR	
<i>Sclerocactus sileri</i>	Siler Fishhook Cactus				SR	
<i>Strix occidentalis lucida</i>	Mexican Spotted Owl	LT				NESL - G3
<i>Xyrauchen texanus</i>	Razorback Sucker	LE	S		WSC	NESL - G2

Arizona Game and Fish Department #M09-02113944. US-89A from Bitter Springs, AZ to Fredonia, AZ.

Arizona Game and Fish Department, Heritage Data Management System. February 10, 2009.

Project Evaluation Program

ESA: LE – Listed Endangered; LT – Listed Threatened; SC – Species of Concern; C – Candidate; CA- Conservation Agreement; XN – Experimental Non-essential population

USFS: S – Sensitive

STATE: WSC – Wildlife of Special Concern in Arizona; SR – Salvage Restricted (under Native Plant Law); HS – Highly Safeguarded (under Native Plant Law)

NESL: G2, G3, G4 – Navajo Endangered Species List Species of Concern

The House Rock Wildlife Area (HRWA) is located approximately 45 miles southwest of Marble Canyon, Arizona. It is one of several Wildlife Areas in Arizona managed by the AGFD to provide wildlife-producing habitat and wildlife-related recreation. The HRWA provides critical winter habitat for big game and year-round habitat for pronghorn. Pronghorn, bison and mule deer are the primary big game species in the wildlife area. Other game species include



House Rock Wildlife Area sign on US 89A

mountain lion, mourning dove and cottontail. The HRWA also supports a wide variety of migratory and resident nongame mammals, birds, reptiles and amphibians. While remote, the HRWA is open to visitors year round and the road to the wildlife area is passable by passenger car in most seasons.

Wildlife species found along the corridor include big game animals such as mule deer, elk, bison, bighorn sheep and pronghorn. Other mammals include predators such as mountain lions, bobcat and coyote, and a variety of smaller mammals, including the Kaibab squirrel, jackrabbit and cottontail, and badger. A variety of reptiles and amphibians can be found along the corridor, including several species of rattlesnake,

chuckwalla, side-blotched lizard, leopard lizard, desert spiny lizard, collared lizard and red-spotted toad. There are a variety of birds, including chukar, California condor, golden eagles, goshawks and peregrine falcon. Twenty species of raptors alone have been documented in Vermilion Cliffs National Monument. (See list of non-endangered or sensitive species in Table E on page 26.)

California Condor (*Gymnogyps californianus*)

California condors are one of the most endangered birds in the world and were placed on the federal endangered species list in 1967. In Arizona, reintroduction was conducted under a special provision of the Endangered Species Act that allows for the designation of a nonessential experimental population. Under this designation (referred to as the 10(j) rule) the protections for an endangered species are somewhat relaxed, providing greater flexibility for management of a reintroduction program. However, these condors are still fully protected under the Endangered Species Act from actions that will harm or harass them. Visitors are encouraged to enjoy condors from a distance but not interact with them.

Since December 1996, program personnel have released approximately six to ten birds per year. Each condor carries two radio transmitters (conventional and/or satellite transmitters) and are monitored daily by up to 10 field biologists.

Humans nearly decimated the magnificent California condor, North America's largest flying land bird. The population numbered a mere 22 condors in 1982. With a huge effort by numerous agencies including The Peregrine Fund and the BLM, a remarkable recovery is underway. By March 2009, the total population in Arizona and southern Utah numbered 74. In 2007, six adult pairs from the Vermilion Cliffs release site showed nesting behavior and two were



Condor in flight, photo courtesy of AZGFD

successful, bringing the total of wild-fledged condors to six. Each year a public condor release occurs in March near the Vermilion Cliffs National Monument Condor viewing site.

The BLM, with help from the AGFD and the Peregrine Fund, constructed and maintains the condor viewing site. This site consists of a shade shelter, restroom and interpretive panels, including a life-sized condor display. To visit this site, drive approximately 40 miles on U.S. 89A west from the junction with U.S. 89 (past Marble Canyon, Vermilion Cliffs and Cliff Dwellers), turn right onto House Rock Valley Road (BLM Road 1065). Travel on the dirt road ap-



Life-sized Condor display

proximately two to three miles to the condor kiosk and shaded viewing area on the right. Atop the cliffs to your east, you will see the condor release structures. With a good pair of binoculars, you can see condor activity year round.

During the fall, winter and spring months, condors frequent the Colorado River corridor near Marble Canyon and the Navajo Bridge. In the summer months, condors are seen frequently at the South Rim of the Grand Canyon and Kolob Canyon in Zion National Park. Condor release dates and activities are printed in local newspapers, broadcasted on local National Public Radio stations or published on the Vermilion Cliffs National Monument Web site and on the Peregrine Fund Web

site. Camping is not permitted at the condor viewing site, but is permitted within Vermilion Cliffs National Monument and BLM-administered lands in House Rock Valley and the Arizona Strip Field Office.

Elk (Cervus canadensis)

The corridor is not elk habitat, although elk occasionally will move south to the Kaibab from southern Utah. In 2007 and 2008, only a few elk were spotted on the west side of the Kaibab Plateau.

Pronghorn (Antilocapra americana)

Pronghorn are found primarily in House Rock Valley and south and east of Kane Ranch all the way to the rim of Marble Canyon. They are also found along the edge of the plateau in the pinion-juniper transition zone. Several herds also reside on the north side of U.S. Highway 89A in the grassland. There are generally one or two herds on South Canyon Point. They often gather near stock tanks that dot the valley. Good optics are necessary for most viewing. In an attempt to boost this herd, the Arizona Game and Fish Department, in collaboration with the Utah Division of Wildlife, BLM and other interested parties, has conducted several pronghorn transplants into House Rock Valley since 2007. A small herd also lives just south of Fredonia in the grassland/low shrub density areas. This herd generally varies from 15 to 30 animals.



Pronghorn, photo courtesy of AZGFD

Pronghorn were historically present in the Great Basin Grassland plant community in House Rock Valley; however, population seems to be cyclic in a direct relationship with precipitation. During periods of drought, poor fawn survival has resulted in low recruitment; conversely, during normal to above-normal precipitation years, fawn survival and recruitment increase. In order to increase populations of pronghorn, several augmentations have taken place over the years to supplement the existing population and provide genetic diversity. Two examples of these augmentations were one in 1951, in which 99 pronghorn originating from southeast of Flagstaff were released into House Rock Valley, and the other in 1982, when 48 pronghorn originating from the Parker Mountains of Utah were released. The department still does augmentations of pronghorn when necessary and is working toward habitat improvement in the area

Desert Bighorn Sheep (Ovis canadensis)

Most of the desert bighorn sheep are found within the Paria Canyon-Vermilion Cliffs Wilderness Area above the community of Vermilion Cliffs and along Kanab Creek. They also are found along the rim of the Paria Plateau near Powell's Monument above Marble Canyon and Lees Ferry, and near spring sources along the Vermilion Cliffs and on the talus slopes below the steep cliff faces. But at any time, spotting them requires patience and a good pair of binoculars.

Mule Deer (Odocoileus hemionus or virginianus)

The mule deer of the Kaibab Plateau may be the most famous deer herd in the world, in part because it is Arizona's largest herd, but also because of the lessons learned by wildlife managers about the interconnectivity of prey, predators, livestock and forage. For example, in 1906 President Theodore Roosevelt established the Grand Canyon National Game Preserve primarily for the deer. Without predators to keep their population down, the herd grew larger than the land could support, and there was an ill-considered attempt to drive 8,000 deer across the Grand Canyon to the South Rim in 1924.



Mule Deer in velvet, photo courtesy of AZGFD

The herd on the Kaibab Plateau is an extremely migratory one. They remain at higher elevations north and east of Jacob Lake amid the trees until forced by snow in November to migrate to pinion-juniper woodlands, and more open cliffrose and sage flats at lower elevations primarily to the west. There is also a small resident deer population on the Paria Plateau that does not migrate. The Buckskin Mountains south of the Utah border at the north end of House Rock Wash are the primary range for Paunsaugunt Plateau in southern Utah. Deer from the North Kaibab start migrating northward to merge with the Utah deer in early November. A good place to view deer is when they come to drink at Jacob Lake or in aspen stands on the Kaibab Plateau.

Bison (Bison bison)

A small herd of bison is located in House Rock Valley. During August-September 2008, buffalo were seen near Wall Lake, as well as along Forest Service Roads 219B, 223, 270 and 610. These roads are located off of SR 67 just north of Grand Canyon National Park. In addition to House Rock Valley, Fire Point and Sowats Canyon are good places to see bison.

Mountain Lion (Puma concolor)

The mountain lion population appears to be healthy and robust. While not migratory in the strictest sense, lions essentially follow the deer herd as it migrates from summer to winter ranges.

Northern Goshawk (Accipiter gentilis)

The Northern Goshawk is a large forest raptor, occupying mature forests. In North America, it breeds from Alaska to Newfoundland and south. In Arizona, the highest breeding density of goshawks occurs within the ponderosa and mixed conifer forests of the North Kaibab.



Juvenile Goshawk, photo courtesy of AZGFD

Game Birds

Chukar (*Alectoris chukar*), a game bird native to the Middle East that has spread naturally throughout the West, is found within the lower end of Paria Canyon, along the rim of the Paria Plateau and at spring sources along the Vermilion Cliffs and at or near Sowats point. Merriam's turkey (*Meleagris gallopavo merriami*) was introduced to the Kaibab Plateau and has flourished, resulting in one of the most productive turkey populations in Arizona.

Kaibab Squirrel (Sciurus aberti kaibabensis)

The Kaibab squirrel, a subspecies of the Abert squirrel, is found only on the Kaibab Plateau, Mount Logan and Mount Trumbull. This squirrel is most active early in the morning and just prior to dark. In 1965, 200,000 acres of Kaibab squirrel habitat were declared the Kaibab Squirrel National Natural Landmark. The squirrel's habitat is confined entirely to the ponderosa pine forests of the North Rim of the Grand Canyon and the northern section of Kaibab National Forest, centered around the community of Jacob Lake, Arizona. The squirrel is dark in color, has tufted ears and a large white bushy tail. With persistent drought the past several years, the population of squirrels on the plateau has declined dramatically, but with the advent of more favorable environmental conditions, there is reason to expect a corresponding increase in the squirrel population.

Fish

Before the construction of Glen Canyon Dam, the silt-laden Colorado River was a warm-water fishery that supported carp, catfish, suckers and native fish species, many now endangered. Since the water released from the dam comes from the lower level of Lake Powell, it is cold, and cold-water game fish such as rainbow, cutthroat and brown trout have been introduced. Despite fluctuating water levels caused by the release of water from Glen Canyon Dam upstream, a world-renowned tailwater trout fishery has developed for 15 miles from the dam to Lees Ferry. Four species of native fish can be found in the Paria River: the flannel mouth sucker, bluehead sucker, razorback sucker and speckled dace. No fishing is allowed at Jacob Lake.

The Colorado River basin is home to 14 native species of fish. Four are endemic and endangered: Colorado pikeminnow (formerly Colorado squawfish), razorback sucker, bonytail chub and humpback chub. The Upper Colorado River Endangered Fish Recovery Program is an effort by the U.S. Fish and Wildlife Service, the Colorado Division of Wildlife and the Utah Department of Wildlife to recover these endangered fish.



US 89A on beginning to ascend the Kaibab Plateau from the western edge

Vegetation

Within the corridor, except on the Kaibab Plateau and around Lees Ferry, vegetation is sparse, reflecting the arid climate and sandy soils. Pinion-juniper woodland, shrub lands and limited upland grasslands dominate the Paria Plateau above the Vermilion Cliffs, also referred to as the “Sand Hills.” Vegetation might include box elder and various species of cacti and other desert flora. Below the cliffs in the House Rock Valley are arid shrub lands with grass interspersed, also referred to as Sonoran Grassland or Great Basin Desert Scrub, which includes sage, shadscale, winterfat, etc. Sagebrush is dominant along the roadway near Fredonia.

The Kaibab Plateau north of the Grand Canyon is primarily a conifer forest dominated by ponderosa pine, spruce and Douglas fir. It also includes Gambel oak, aspen and upland grassland. Between the Kaibab Plateau and Fredonia is a pinion and juniper woodlands plain.

Along the corridor, riparian areas vary greatly in appearance and are located along streams, “dry” washes, benches and cliffs. Water sources for riparian areas may not always be visible. Sometimes surface water is present as ponds, seeps or running streams, while other sources may be far underground.

Where there are riparian areas, vegetation communities consist of three zones. Plants closest to the water include cattails, common reeds, edges, rushes and horsetails. Drier soil farther from the water’s edge is a good environment for woody plants, such as coyote willow, cottonwood, ash, tamarisk and seep-willow, which can survive repeated flooding. Beyond this zone, the dominant vegetation includes trees such as cottonwood, willow, ash and tamarisk. This zone is the fringe between riparian and desert uplands, often sharing vegetation like rabbitbrush, Indian ricegrass, arrowweed and sand dropseed. Vegetation near seeps includes ferns.



US 89A in the Kaibab National Forest on the Kaibab Plateau

The USFS and BLM manage their lands for multiple uses along the corridor, including timber harvesting, grazing and native seed/plant harvesting. There are many threatened, endangered, and sensitive plant species along this roadway corridor which are protected by the USFWS, USFS, BLM, AZGFD and the Navajo Nation. They include a variety of cacti, milk vetches and milkweed.

Timber Harvesting

On the east side of the Kaibab Plateau near U.S. Highway 89A, logging is active. The commercial logging operation is part of a fire prevention effort. ADOT removes trees within the U.S. Highway 89A right-of-way along the highway to improve sight distance. In addition, the Kaibab National Forest wants to begin a program to restore a

fire-adapted ecosystem. The program is currently undergoing environmental review. Wherever possible, logging trucks drive on forest roads to avoid driving on U.S. Highway 89A on their way to the mill in Fredonia. The presence of logging trucks, along with all other large 18-wheel vehicles, raises safety concerns on the narrow roadway. Slash piles of debris from the logging operations are stockpiled and burned during the winter when fire danger is lower. During other seasons, controlled burns may be used to reduce fuel. The smoke and flames from these fires will be visible in the corridor and could impact the enjoyment of the U.S. Highway 89A corridor. With permits, local residents also remove timber from the Kaibab Plateau for their personal use.

Grazing

The vegetative ecosystems along the corridor are shaped in part by the grazing of cattle and horses that is allowed on all of the public and native lands and the national parks. No domestic sheep are grazed along the corridor to protect the desert bighorn sheep from the diseases of domestic sheep.

Most of the livestock grazing permits are held by residents of southern Utah and many have held the permits over several generations. The corridor boasts two large ranches, Kane and Two Mile. In 2005 two environmental organizations, the Flagstaff-based conservation organization Grand Canyon Trust, and the Conservation Fund, formed the North Rim Ranch (NRR) and acquired the permits for over 850,000 acres of public grazing in House Rock Valley and on the Kaibab and Paria Plateaus. The Kane Ranch permit allows 800 cattle year round, and the Two Mile Ranch permit allows for 1,385 cattle year round. Working with the U.S. Forest Service, the Bureau of Land Management and the AZ State Land Department, NRR develops management plans that take into account special conservation areas, wildlife, the state of the existing vegetation and water supplies to graze livestock in an environmentally sensitive manner.

On the Kaibab Plateau, approximately one-half of the grazing allotments are in the ponderosa pine ecosystem, one-third are in the pinion-juniper ecosystem and two-thirds are in the cold desert grasslands.

Although the numbers of domestic livestock that are grazed are much reduced from the area's early ranching days, the legacy of overgrazing persists in the presence of noxious weeds, increased erosion and an increase in grazing-tolerant plants. Management practices include making adjustments in livestock season of use, utilization levels and rotation strategy. The Kane Ranch also has initiated a restoration effort to re-seed cool season grasses to the House Rock Valley. In addition, AGFD and the Forest Service have undertaken efforts to seed grasses and shrubs back into historically burned areas.

Access for livestock and their caregivers is from U.S. Highway 89A. Livestock are brought to and taken off grazing allotment via cattle trucks at corral locations not immediately adjacent to U.S. Highway 89A, but the trucks transporting these cattle do use U.S. Highway 89A.

Native Seed/Plant Harvesting

Native seed and plant harvesting is active on the public lands



Commercial harvesting

of the corridor by both Native American tribes and by commercial harvesters. Both the Kaibab National Forest and BLM require permits to harvest plant materials. Professional seed harvesters have located at least two sites in House Rock Valley that can provide native seed for use in reclamation projects throughout the west. The Arizona Strip District of the BLM receives 10 to 15 requests a year for permits. The areas to be harvested are large, between 500 and 1,500 acres generally, and use mechanical harvesting equipment, which makes the operation potentially visible from U.S. Highway 89A. However, the timeframe available for harvesting is limited. The principal vegetative type impacted by commercial seed harvesting is the desert grassland type.

Noxious Weeds

Any land disturbance can introduce noxious weeds into the ecosystem along the corridor. The Warm Fire, which burned approximately 58,000 acres in 2006 on the Kaibab Plateau and across U.S. Highway 89A in the vicinity of MP 57.4, facilitated the spread of cheatgrass and other non-native plant species. Noxious weeds, such as bull and musk thistles and spotted knapweed, have been identified along the entire corridor.

Near water, tamarisk, or salt cedar, is an exotic invader because it draws more water from the land than native plants such as cottonwood. At Lees Ferry, the NPS has an experimental plot where tamarisk has been removed and native cottonwood and willows have been introduced.

Removal of noxious weeds can be by mechanical or chemical methods, although the preference by federal land managers is by hand grubbing. Re-seeding with native plant seed may also be required. Controlling noxious weeds is an ongoing, labor-intensive process for the land managers, but it is necessary to maintain the natural ecosystems. It is far easier to make every effort to reduce the introduction of noxious weeds or prevent their spread.

Resource Extraction

Along the corridor, all public lands, except the national monuments and the national parks, are open for claims for mineral extraction. Most of the interest is in oil and gas and uranium exploration. Oil and gas exploration wells have been drilled sporadically in the region since the early 1900s, but no oil or gas has been produced. Disturbance caused by each well, including access, typically ranges between five and 10 acres. Complete reclamation of the disturbance requires from five to 10 years. The prospect of active uranium mining along the corridor so close to the Grand Canyon has prompted an Arizona Congressman to introduce a bill to permanently withdraw the Kaibab Plateau and parts of House Rock Valley to new mining claims and exploration. There are still existing uranium claims in House Rock Valley.

On July 21, 2009, the Secretary of the Interior proposed to withdraw, subject to valid existing rights, approximately 633,547 acres of BLM managed public lands on the Arizona Strip District and 360,002 acres of National Forest System Lands on the Kaibab National Forest for up to 20 years from the location and entry under the Mining Law of 1872. The notice of proposed withdrawal which was published in the Federal Register segregated the lands from location and entry for up to 2 years to allow time for various studies and analyses to support a final decision on whether or not to proceed with a withdrawal.

A Notice of Intent (NOI) was published in the Federal Register on August 26, 2009, to initiate scoping and preparation of an Environmental Impact Statement (EIS) for the proposed withdrawal. The BLM will be the lead agency,

working in cooperation with the USFS, the USFWS, the U.S. Geological Survey, the NPS, and other state, local and tribal agencies to prepare an EIS used to support a final decision on the withdrawal. The EIS will disclose the potential impacts the proposed action would have on the human environment and natural and cultural resources, as well as determine what measures would be necessary to mitigate or reduce those impacts.

In addition to analyzing the potential impacts, the EIS will also identify and analyze alternatives to the proposed action. The EIS will analyze at least two alternatives, the “Proposed Action” to withdraw lands from the location of new mining claims and the “No Action” alternative, which would continue to allow location of new mining claims. Other alternatives may be analyzed as appropriate, including withdrawal of a smaller area.

Disability Access – Americans with Disabilities Act (ADA)

The U.S. Highway 89A corridor lies in an area with few new buildings and no streets with curbs and gutters or paved sidewalks. It is a difficult environment for those with disabilities since so much of the area where visitors want to go has uneven and unpaved surfaces.

The visitor center at the Navajo Bridge, which also serves as the visitor center for Lees Ferry, is open from April to November and is ADA compliant. The Jacob Lake visitor center, operated by the USFS is also ADA compliant, and is open between May and November. Vermilion Cliffs National Monument’s Condor viewing site on House Rock Valley Road has an ADA compliant restroom. The monument has no visitor center, and any facilities are primitive and not considered ADA accessible. Lees Ferry has some ADA-compliant restrooms, but walks, parking area, boat docks, beaches and access to Lonely Dell Ranch are not fully ADA compliant.

Jacob Lake Inn, which has lodging facilities, a conference center, gift shop, bakery and dining room, is mostly ADA compatible. The Marble Canyon Lodge convenience store is ADA compliant, as are some rooms. Cliff Dwellers Lodge has one room that is ADA compliant and the restaurant is as well. Lees Ferry Lodge does not have fully ADA-compliant rooms, and the restaurant and outbuildings and exhibits do not meet ADA standards. *Note:* There is some disagreement about the ADA compatibility of the main dining area restroom at Jacob Lake Inn. Also it is unknown if the Marble Canyon house on the east side of the road is ADA compliant.

The only trail that is ADA compliant is located between Jacob Lake Inn and the lake. The adjacent campground does not have wheelchair-friendly restrooms, however. Campgrounds throughout the corridor are not fully ADA compliant. The House Rock Overlook has an asphalt parking surface, but there is no curb or contrasting paint stripe to denote the edge of pavement and the surface is uneven with a slope that may not meet ADA standards. There are no restrooms.

The Le Fevre Overlook also has paved parking and no curbs or paint stripes to mark the edge of the parking area. One path is paved to an ADA-compliant restroom, but due to bad odors the restroom is not used and the Forest Service is considering closing it. The viewing area is not ADA compliant. Trailheads located near U.S. Highway 89A between Bitter Springs and Jacob Lake, except for the Arizona Trail which has an ADA compliant restroom, do not have developed facilities and are not accessible. The Dominguez-Escalante Interpretive Site has paved sidewalks and curbs around the parking area and is ADA accessible. There are no restrooms. The picnic table is not ADA accessible.

Signage, Outdoor Advertising and Wayfinding

Since so much of the U.S. Highway 89A corridor crosses government-controlled lands, excessive outdoor advertising is not a problem. The Kaibab National Forest will not allow any outdoor advertising. Also, billboards are illegal within the National Recreation Area. The BLM also has stringent guidelines regarding outdoor advertising. The Navajo Nation does allow billboards on their land, but they do require permits.

The signage along U.S. Highway 89A includes scenic byway icon signs, historic trail and monuments markers and normal highway signs that show mileposts, indicate directions, posted speed limits, watch for animals and other safety messages. Commercial businesses have identifying signs near their operations. There are four billboard signs: one on Navajo Nation land near Navajo Bridge and three on private property near the chain-up pullout between Fredonia and the Kaibab Plateau.

The Navajo Nation and the Kaibab Band of Paiute Indians Reservation have identifying and directional signage. The federal land-managing agencies have signs providing direction and interpretation. USFS has two kiosks at the



base of the Kaibab Plateau near the east and west chain-up locations. These kiosks are highly visible but mainly used to post information about snowmobile use and general safety notices. The BLM has indicated they are not required, and the USFS has expressed a willingness to use the kiosks for other purposes.

There are a number of interpretive sign panels throughout the corridor, some installed by the AGFD. There are interpretive signs at the Le Fevre and House Rock Valley Overlooks; near the private lodges – Marble Canyon, Vermilion Cliffs, Soap Creek, Cliff Dwellers and Jacob Lake; at the Dominguez-Escalante pullout; Navajo Bridge Visitor Center; the Condor Release

Viewing Site; Lees Ferry; and the USFS Visitor Center at Jacob Lake. A number of other locations are deserving of interpretive signage. No master plan for interpretive sign graphics or messaging exists, although the Vermilion Cliffs Highway Project developed interpretive plans for the entire corridor with BLM as the lead. The project included stakeholders from St. George, Utah, to Page, Arizona, and it developed interpretive plans for the entire corridor.

EXISTING WAYSIDE EXHIBITS

LOCATION	TYPE	THEMES	COMMENTS
Navajo Bridge	Panels on low profile mounts & Plaques	Navajo Bridge; Colorado River; Lees Ferry; California Condor; Individuals; more	NPS Visitor Center & Interpretative Site
Lees Ferry	Panels on low profile mounts	Lees Ferry; Colorado River;	NPS
Marble Canyon	Plaques; Monuments	Marble Canyon; Individuals associated with Lees Ferry & rafting (Karen Kazan; Warren Marshall Johnson, Gregory Crampton; Dominquez Escalante Expedition Monument; Vermilion Cliffs highway;	Mix of public and privately sponsored exhibits; both sides of SR 89A – probably outside R/W on private land

LOCATION	TYPE	THEMES	COMMENTS
Cliff Dwellers	Panels on low profile mounts and wall mounted	Navajo; Vermilion Cliffs highway; California condor;	AZGFD; BLM
Soap Creek	Panel on low profile mount	"People Who Live in Rock Houses"	BLM
Dominguez Escalante Interpretive Site	Panels on low profile mounts & Plaque	Exploration by Spanish; "Pioneer Roads" - Honeymoon Trail; "Ancient Pathways" - Southern Paiute Nation;	BLM site. Appears to be missing bronze plaque on expedition monument.
House Rock Wildlife Area MP 560 south of SR 89A	Panels on kiosks	Kaibab & Paria Plateau, House Rock Valley ecosystems; Arizona and Great Western Trail maps and information; Buffalo Ranch; Wildlife	BLM Site
Chain-Up Area @ MP 565	Panels on kiosks	Notices; area map	USFS; Off-Highway Vehicle Recreation Fund
Condor Release Viewing Site	Panels on low profile mounts	California Condors	BLM; Peregrine Fund
House Rock Overlook	Panels on low profile mounts	Sharlot Hall on the Arizona Strip; California Condor; Vermilion Cliffs highway	USFS
Great Western Trailhead @ SR 89A @ MP 576	Panel on high profile mount	Trail map; description of trail and Kaibab Plateau	USFS, Off-Highway Vehicle Recreation Fund; AZ State Parks
Jacob Lake	Panel on kiosk; plaque	Kaibab Squirrel; Teddy Roosevelt; Kaibab Forest Map	USFS Visitor Center; nature trail
LeFevre Overlook	Panels on low profile mounts	Kaibab Deer; Teddy Roosevelt's Legacy; Vermilion Cliffs highway	USFS
Chain-Up Area @ MP 595	Panels on kiosk	Notices; area map	USFS; Off-Highway Vehicle Recreation Fund

Because of the narrow roadway, the location and size of signing is important to provide motorists sufficient notice of upcoming attractions or turnoffs. Areas cited as needing this kind of signage include the Navajo Bridge and wherever authorized Navajo vendors have set up vending operations (east side of Navajo Bridge, House Rock Valley Overlook and Le Fevre Overlook).

Utilities

The private lodges and residences in the Marble Canyon area receive electricity from Page Electric in Page, Arizona. The power is delivered through standard above-ground wood poles. The poles and wires run behind residential and commercial properties along the base of the Vermilion Cliffs to the west. Electric service to the Jacob Lake area and west to Fredonia is provided by Garkane Energy Cooperative in Kanab, Utah. Corridors for large electrical transmission lines exist radiating from Glen Canyon Dam. However, these are located out of the line of sight outside the corridor. A utility corridor with a large transmission line exists at approximately MP 603.2, perpendicular to U.S. Highway 89A before the road enters Fredonia. Navajo Tribal Utility Authority delivers power via poles and

wires to residents in the Bitter Springs-Navajo Springs area of the southern end of the corridor.

Natural gas lines do not serve the corridor. Propane is available by truck. TDS Telecom provides telephone and internet service to the mid-point of the corridor; South Central Communications to the northern end and Pioneer Communications to the Bitter Springs area of the Navajo Nation.

INTRINSIC QUALITIES INVENTORY

Archaeological Intrinsic Qualities

People occupied what is now known as the Arizona Strip at least 12,000 years ago, dating to what archaeologists call the Paleo-Indian period. These early people were primarily hunters who followed big game on their seasonal rounds. Archaeologists have found few remains from this time, but there is sufficient information available to show that the region was heavily occupied in the later Archaic and formative periods/Anasazi times. During the Archaic period, roughly 9,000 to 2,300 years ago, hunting continued to be an important source for food, but wild plants became increasingly important. Archaeologists have found evidence of Archaic period people in all environmental zones on the Kaibab Plateau and surrounding slopes. About 2,500 years ago, the domestication of plants began a dramatic shift in lifestyles across the Arizona Strip. For the next 1,000 years, the Basketmaker culture (early Ancestral Puebloan people), as archaeologists call them, gradually increased the use of cultivated plants while still gathering wild plants and hunting. As the Basketmaker people relied more on cultivated plants, they moved less frequently and built more permanent, partially underground housing. The earliest pottery vessels found in the region were made at this time.

Between A.D. 800 and 1,000, during the Pueblo periods, people began building small, rock-walled buildings and making painted pottery. Over time, houses and villages increased in size. By the late A.D. 1300s, the Ancestral Puebloan people abandoned the Arizona Strip. What prompted this abandonment has been the subject of archaeological research for more than 100 years. Current evidence suggests that climate changes, possible overuse of agricultural areas, and increasing population levels likely contributed to worsening agricultural conditions, prompting people to move south.

The Southern Paiute moved into the area from the southern Great Basin by approximately A.D. 1100. The Paiutes were hunters and gatherers with a similar lifestyle to the earlier Archaic period people. The Paiute lived on the Arizona Strip and hunted big game and other animals, gathered pinion nuts and used local stone to make tools. They moved to take advantage of seasonally available foods and lived in brush shelters called wikiups. Where it was possible, they practiced horticulture similar to the Ancestral Puebloan people who had dwelled here before.

Dropping suddenly from the western escarpment of the Kaibab Plateau, the wind-and-water-sculpted canyon walls of Kanab Creek enclose some of the Colorado Plateau's richest cultural and ecological legacies. Ancient rock art decorates the canyon walls amid springs, seeps and hanging gardens. As the largest tributary entering the Grand Canyon from the northern side, Kanab Creek is one of the few major water sources for the Arizona Strip. The occupation of Kanab Creek and its tributaries date back more than 2,000 years, when prehistoric inhabitants of the Colorado Plateau used Snake Gulch and Kanab Creek to access the Kaibab Plateau at the North Rim of the Grand Canyon from Havasu Canyon at the South Rim. Kanab Creek retains cultural importance to the Kaibab Paiute. The

tribe was known to use this area to collect willow for basket-making. They also used many trails to access the Grand Canyon.

Hopi Clans and the Vermilion Cliffs in Prehistoric Times

(Contributed by the Hopi Cultural Preservation Office)

Hopi people, Hopisinom, and their ancestors, Hisatsinom, People of Long Ago, and Motisinom, First People, have lived in and migrated through the corridor's region for thousands of years. Hopi Clans that lived in the area include the Rattlesnake, Sand, Kachina, Badger, Flute, Fire and Coyote Clans. Clans that migrated through the area include Bear Strap, Bull, Greasewood, Bamboo, Roadrunner, Eagle and Bear Clans.

These lands are part of Native indigenous lands. The Grand Canyon and Colorado River are Traditional Cultural Properties of the Native people. Hopisinom entered into a sacred Covenant with the Earth Guardian in which it is their responsibility to be preservers and protectors, or Stewards of the Earth. In accordance with that Covenant, some of their ancestors' clans migrated to and settled on the lands around the Vermilion Cliffs and then migrated to Hopi lands. Part of the reason for extensive Hopi migrations throughout the continent was to plant corn in different hard-to-grow areas in order to strengthen the corn.

The crossing of the Colorado River, Pisisvayu, on the Hopi-Paiute Trail at what is now known as Lees Ferry, Yamaqqi, the crossing place, was the only relatively easy route for hundreds of miles to cross the Grand Canyon, Ongtupqa. Salt Canyon was used as a corridor or passageway by many Clan populations throughout prehistory and history. Paria and Marble Canyons are known as Navipvusukinpi, the place where two echoes come together.

Hisatsinom and Hopisinom

Hisatsinom introduced cotton farming to the area. Initially, long ago, there were some conflicts between Hopi Clans in the region and the Paiute people, but the Hopi soon developed a trading relationship with the Paiute, trading cotton for leather. Hopi used to cross the river on rafts made of cottonwood logs; they would begin far upstream and cross the river as they floated downstream.

The Mormon Trail, or Honeymoon Trail, was originally the Hopi-Paiute Trail and was in use for more than a thousand years prior to the arrival of the Spanish, LDS and American colonists. It passed through the valley in between the Vermilion Cliffs and the Kaibab Plateau. The trail was used as part of a trading network by the Hopi and Paiute and followed ancient migration and ceremonial routes. Lees Ferry, for example, is a stop on a spiritual trail followed as part of the Hopi Kachina dances.



Valley in between the Vermilion Cliffs and the Kaibab Plateau, view from House Rock Valley Overlook

Hopi Clans also have a history with the California condors. There are ancient Hopi stories, coming from the Eagle Clan, which traces its history to Peru, about the Clan's efforts to cross mountains. They tried to get help from the eagles, but the eagles advised the people to ask its cousin, the condor. The condors came and visited with the people and, one by one, the people got on the condors' backs and were flown over the mountains they were trying to cross.

The prehistoric “Ancestral Pueblo” sites and rock markings around Moenavi Spring, House Rock Valley and Kanab Creek are primarily from Hopi Clans. Paiute and Navajo habitations and rock markings are usually culturally and temporally distinguishable from Hopi ancestral sites.

These lands contain the testimony of their ancestors’ stewardship through thousands of years, manifested in the prehistoric ruins, the rock “art” and artifacts, and the human remains of the Hisatsinom, who continue to inhabit them. Hopi people have returned to the Vermilion Cliffs on pilgrimages since time immemorial and continue to do so today.

Historic Intrinsic Qualities

The first documentation of Europeans visiting the area was in 1776 by Spanish priests Dominquez and Escalante. Euro-American settlement began in the 1850s with the arrival of members of the LDS Church. These earliest settlers initially used the Arizona Strip for cattle and sheep grazing. During the 1860s, unrest between the Navajo and LDS settlers limited the number of homesteads. As the unrest lessened, LDS settlers were sent to establish Kanab, Utah.

During the late 1800s, sheep and cattle ranchers grazed their livestock across the Arizona Strip and Kaibab Plateau. Grazing continued to be important during the twentieth century, though fewer animals were released onto the open range after the establishment of the Kaibab National Forest in 1907 and with passage of the 1934 Taylor Grazing Act. Some mineral exploration and mining occurred in the Ryan Lake and Jacob Lake areas. On the Kaibab Plateau, small-scale horse logging took place in drainages near springs that could supply water for steam-powered sawmills. Following the development of road networks, logging became an important industry. Currently, recreational tourism associated with the Grand Canyon and the surrounding national forest is an important local business for the region’s communities.

Southern Paiute History

(Contributed in part by the Kaibab Southern Paiute Band of Indians.)

Kaibab, Kaivavitsesi, is the Kaibab Southern Paiute Band of Indians’ name for “mountain lying down.” The Kaibab Southern Paiute are one of a number of distinct Southern Paiute bands who have inhabited the Arizona Strip. The area is their ancestral home, their mythology holding that the Kaibab Plateau was their place of origin. In 1907, the Kaibab Southern Paiute Indian Reservation was established, which was a small portion of their original homeland in this region. The reservation, on the Utah border, covers 120,431 acres of plateau and desert grassland. The water at Pipe Spring and other surrounding Seep Springs made life comfortable for plants, animals and Southern Paiutes. The Kaibab Southern Paiute Indians gathered grass seeds, hunted animals and raised crops near the springs for at least 10,000 years. Situated along Kanab Creek in northern Arizona, the reservation is surrounded by small communities including Fredonia, Arizona, Kanab, Utah and Colorado City, Arizona. A vast majority of the reservation land is undeveloped. The 240 members of the Kaibab Southern Paiute Band of Indians speak a Uto-Aztecan language, in addition to English. Over the past 10,000 years, the Kaibab Southern Paiute have learned to adapt for their survival.

The San Juan Southern Paiute have lived for 10,000 years in the areas known today as the Western Navajo lands. San Juan Southern Paiute farmed, hunted and gathered grass seeds. Their Traditional Territories are from the Little Colorado River north past Paiute Mountain known today as Navajo Mountain, as well as a small section of Utah

and Colorado. Small bands of San Juan Southern Paiutes reside today around Tuba City and Paiute Mountain.

Hopi History

(contributed by the Hopi Cultural Preservation Office)

During the period of Spanish conquest beginning in 1540, the military, in collusion with the Catholic Church, outlawed Hopi religion for 160 years. During the Spanish re-conquest of New Mexico, around 1700, the Hopi village of Awatovi was sacrificed in a preemptive move to prevent the Spanish from conquering the Hopi and to continue their culture. The ruins of Awatovi remain, but the legacy of that violence continues to haunt Hopis today.

The arrival of LDS pioneers in the region during the 1800s was the beginning of the Anglo-American invasion, eventually leading to forced education and imprisonment in the early 1900s. LDS farmers came from northern Utah to grow cotton, a crop that is part of what made this area an interface between cultures.

Amidst conflicts with LDS pioneers, the Hopi were driven out of Moenave. Jacob Hamblin, an LDS missionary, established residency at Moenave, a Hopi farming area, in the 1860s. When Mountainmen Jim Bridger and Bill Williams raided Hopi cornfields and watermelon gardens in Moenave, the Hopi resisted; 18 Hopi were shot and killed.

Pioneers also began homesteading in Moencopi, near Tuba City, and by 1885 had driven the Hopi out of most of their ancestral farming areas in the region. An Oraibi Hopi village chief instructed the Hopi to preempt farming claims by cultivating the land ahead of the pioneers. The pioneers reported the Hopi actions to the Fort Defiance Agency and described it as a Hopi takeover. Eighteen Hopi men were arrested, charged with sedition, tried at Fort Defiance and imprisoned at Alcatraz.

As the LDS presence grew in the region, through contact with the Hopi, the missionaries began to see that Hopi history is found in Hopi religious beliefs and practices. The LDS Church members made an effort to learn about Hopi traditions and esoteric knowledge by recruiting Hopi seasonal laborers to harvest fruit in the St. George area. With the Hopi separated from their villages, the LDS hoped they could be convinced to share knowledge with them that the Hopi were otherwise prohibited from sharing with outsiders. The laborers were often treated lavishly at first, but those without traditional knowledge were separated and returned to their villages. Some Hopi, the famous Tuuvi, for example (Tuba City's namesake), offered esoteric knowledge to the missionaries and was later chastised and put into exile at Moencopi with others who had shared sacred knowledge with the Anglos. Having been exiled, and under pressure from the missionaries, some Hopi, such as Tuuvi, converted to the LDS religion. Tuuvi, who had been imprisoned at Alcatraz, was later found murdered after feuding with LDS colonizers.

As conflicts with Anglos continued, so did imprisonments at Alcatraz. That increased the Hopi will to resist, particularly against the United States government. Throughout the conflicts with the Spanish, LDS pioneers and Anglo-American settlers, the Hopi relied on long-developed and subtle techniques of survival such as being insular and self-sufficient.

Modern Times

Today, Hopi is a vibrant, living culture. Hopi people continue to perform their ceremonial and traditional responsibilities in their ancient language around and atop three mesas in the remote region of northeastern Arizona. Hopi farmers continue to raise a variety of crops through dry farming in the arid environment.

The Hopi Cultural Preservation Office and Hopi Cultural Resources Advisory Task Team, composed of traditional leaders from the Hopi villages, are currently engaged in a Hopi-Paiute ethnographic overview of Snake Gulch with Kaibab National Forest. The Vermilion Cliffs and Echo Cliffs are still visited by Hopi, who maintain golden eagle and hawk shrines throughout the area. Today, Moenave is inhabited by the Navajo Tribe.

The Hopi Way

When Hopi people first emerged into this Fourth World, they asked Maasaw, the Earth Guardian, if they could live here. Maasaw offered a bag of seeds, a water gourd and a planting stick, and explained that the Hopi people's way in the Fourth World would be hard, but that the Hopi Way would provide a long and good life. Therefore, the ethic of self-sufficiency has always been the root of the Hopi Way.

Hopi people trace their history back thousands of years, making Hopi one of the oldest living cultures in the world. Hopi are a diverse people; their ancestors Hisatsinom, people of long ago, are known as the "Anasazi," "Hohokam," "Sinagua," "Mogollon" and other prehistoric cultural groups of the American Southwest. Some of the Hopi villages are among the oldest continuously occupied settlements in the United States. The remoteness and expanse of Hopiland has isolated Hopi people from the outside world and has helped to preserve their culture.

Hopi are deeply religious people living by the ethic of the Hopi Way: peace and goodwill, spiritual knowledge, adherence to religious practices and responsibility as Earth Stewards. Hopi culture places great value on family cohesion, stability and generosity, humility and respect, a work ethic of self-reliance, and valuing and honoring the needs of the entire community.

The Hopi extended family, relatives by blood and clan, provides a strong and enduring support system. A child is part of a larger family and clan system. Hopi people say, "We're not just farming, we're growing children." In the Hopi language and culture, their aunts and uncles are their mothers and fathers, their cousins are their brothers and sisters.

For the Hopi, giving, *maqa*, "to give," has been at the heart of their society and social compact since time immemorial. The honor of giving includes respecting and honoring both the giver and the recipient. In Hopi culture, giving is reciprocal, binding individuals and groups to each other and the spiritual realm. Work is a gift based on kinship and gender. Hopi people build their homes with *suminangwa*, all together, and *naminangwa*, mutual concern for others' welfare. The very cornerstone of Hopi society and sociality is the exchange of mutually beneficial gifts, and relationships reconfigured by those exchanges. Gifts are communications in a language of social belonging.

In Hopi culture, giving isn't charity; giving and helping are embedded in spiritual and cultural ceremonies, as well as the normal routine of daily life. Hopi people share with others because it makes the community stronger. The cornerstone of the Hopi Way is an initial idea, a ritual plan, and a prayer for success.

Navajo History

(Contributed in part by the Community Land Use Planning Committee of the Navajo Nation Bodaway/Gap Chapter & the Navajo Nation Historic Preservation Department)

The lands that the Diné (Navajo) live on represent a significant portion of their traditional use area. They also represent places of power where ceremonies were first performed or given to the Diné. The cultural landscape includes mountains, mesas, rivers and natural rock formations as well as many of the prehistoric ruins that lie within or near

the exterior boundaries of the Navajo Nation. The Navajo Nation claims cultural affiliation to the Anasazi. These places represent the place of emergence of the Diné into this world, clan migration routes or the resting places of the deities. In order to understand their importance, provided is a brief overview of how the cultural landscape was created.

The traditional Diné belief is that the world in which we now live is the fifth world created for the Diné and others. The first world was black, the second blue, the third yellow and the fourth white. The fifth world, the glittering world, is inhabited by the Diné. The Hopi call this the fourth world and claim to have emerged from a natural formation in Grand Canyon called the Sipapuni. "As the first climbers emerged through the Sipapuni and stepped into the Upper World, Yawpa the mockingbird stood at Spider Grandmothers side and sorted them out. You shall be a Hopi and speak the Hopi language he said to one. And you shall be Navajo and speak the Navajo language... The Apache, Paiute, Zuni, Supais, Utes, Sioux and the White Men..." (Courlander, 1997) in turn emerged from the Sipapuni, receiving their identity and language.

Each world of the Diné leading up to the fifth was destroyed by flooding water. The first inhabitant of the fifth world was a Locust who entered the glittering world to find it was an ocean of water that was guarded by a water monster that would not let them live in the Glittering World. The Locust defeated the monster and then threw pieces of white shell, turquoise, abalone and jet each in a different cardinal direction. One to the east, south, west and north, which form the four Sacred Mountains that surround the Navajo Nation. To the east Sis Naajini, Blanca Peak in Colorado; Tsoodzil, Mount Taylor in New Mexico to the south; Dook'oo'osliid, San Francisco Peaks to the west; and Dibe'Nitsaa, Hesperus Peak to the north. In this world water was everywhere, and after much discussion it was decided that rivers, creeks and streams would be created to drain the world. It is said that Gha'a'ask'idii, the Humpback God, created the Grand Canyon as he stood in the middle of the world and dragged his cane from east to west.

First Man and First Woman (non-human) were the first inhabitants of the Glittering World and were made from corn. First Man and First Woman found a baby (Changing Woman) on top of Gobernador Knob who grew from infant to puberty in four days. Changing Woman in turn created the Diné. She took clay, rubbed it across her breasts and molded it into the image of humans. The figures were dried in the sun but had no life, and then five winds, black, blue, yellow, white and glittering, entered the figures bringing them to life. The winds exited through the fingertips, feet and the top of the head as whirlwinds, leaving swirls (finger and footprints as well as the swirl of hair on your head). During this time, Changing Woman created the original four clans of the Diné.

One of the challenges that the new humans faced was monsters that inhabited the earth. The monsters needed to be destroyed; the children of Changing Woman were the Hero Twins: Monster Slayer and Born-For-Water. They represent the balance between strong and gentle, the forces of nature. The twins traveled to the sun to visit their father, and, after many tests, they returned to earth with weapons to slay the monsters that were disturbing the Diné. Two of the many monsters slain were One Walking Giant (ye iitsoh La I Naaghaii), whose dried blood can be seen in the form of a lava flow near Tsoodzil, Mount Taylor, and Tse Ninahaleeh, the Monster Bird who lived on top of Shiprock (Tse' nit ai or Winged Rock). With the killing of the monsters, the cultural landscape began to take shape. The natural landscape of the Diné not only reflects the death of monsters but also the first Hogan, sweat lodge and fire dance. Many of the ceremonies are tied to the natural landscape such as the Kinaalda' (female puberty ceremony) first performed at Huerfano Peak, as well as the San Juan, Colorado and Little Colorado Rivers.

The Colorado River, which is known as Bits'íis Nine'e'zi (The River of Never Ending Life), is recognized as female, and the Little Colorado River as male. Changing Woman would travel in the area with her animals and decided to rest in the canyon one night. She fenced up her animals and made camp. There she met a man and was seduced, and the next morning she began to menstruate (the first Navajo to do so) and washed in the river, turning the water red (hence the Spanish name for red, Colorado). She left behind salt (a traditional salt mine is located in the canyon and used by Navajo, Hopi and other tribes in the area) as well as turquoise and shells, which can still be found in the canyon.

The black staining on the sandstone that can be seen near the confluence of the Little Colorado and the Colorado also has a traditional story associated with them. There was a young man, whose name means "He Who Seeks Intelligence," who hollowed out a log, enclosed himself inside (a submarine in a way) and floated down the San Juan River to the Colorado, where he was captured by the Water Monster and held hostage for the return of her baby that was stolen by the coyote. First Harvesting God asked for his release and was denied. Talking God was next to ask for his release, and he too was denied. Last came Black God, who asked Water Monster for his release and was denied. He warned that he would start the river on fire. The Water Monster denied the request and stated that water cannot burn. Black God set the river on fire denying him the chance to come up for air. Water Monster released He Who Seeks Intelligence. The after-effects of the fire can be seen on red/blackened canyon walls.

The Grand Canyon and the Colorado River play an important role in the creation stories of the Navajo People and are considered sacred. In the past they have provide refuge from enemies, shelter and food, and continue to play an important role.

The Navajo people have occupied the Four Corners region, having been created within the four sacred mountains, and can trace their lineage to clans and archaeological sites associated with the Anasazi. In the 1500s, the Diné (Navajo) were known to occupy the Dinétah area near Bloomfield, New Mexico. As the Diné roamed the area scouting game and bountiful land, they came across the Bitter Springs, Arizona area. Here, the Diné settled in the late 1800s and made the Bodaway/Gap and Bitter Springs area home. Some of the first bands of Diné that settled in this area were the Tsinjinine Clan, the Tsen gi kini Clan, the Bit'ah nii Clan and the Kin lichii ni Clan, or the Many-goat Clan. Navajo Nation Chapters were established by the Tribal Government in the 1920s.

Early Spanish exploration was halted by the Grand Canyon, and there was no attempt to settle the area, other than on the Hopi Mesas, in the 1600s. The Grand Canyon has been occupied by the Diné since prehistoric times and they continued to occupy portions of the canyon until they were removed for the building of Glen Canyon Dam.

During the Indian and Spanish War period, the Diné people in this area had to hide in the Grand Canyon from the war parties. In 1864, Kit Carson instituted a round-up of Native Americans to be sequestered at Fort Sumner in New Mexico, and local Diné, upon hearing of the round-up, again took refuge in the Grand Canyon. According to Diné oral histories, some women and children who were captured during the imprisonment at Fort Sumner escaped and walked back to this area. They lived within the walls of the canyon until 1868, when word was received that the Native Americans living at Fort Sumner were evacuated.

Since that time, the Diné people have continued to travel throughout the Grand Canyon and Marble Canyon, taking advantage of the abundance of vegetation for livestock, water, hunting, plant gathering and salt. Due to the

sacredness of the canyons, the Diné people have chosen to not settle there; they have only taken from the canyons what they felt was absolutely necessary. The canyons have, throughout the years, allowed the Diné people to escape danger, and have hosted their seasonal camps when the plateaus were experiencing droughts.

Prior to 1870 and before the establishment of an operational ferry at Lees Ferry, the Diné would travel from their traditional homeland, mainly concentrated near the present day Arizona-New Mexico border, to raid the isolated LDS settlements to the west of the river. Two primary crossings would be used: one to the north under present day Lake Powell, known as Ute Ford or the “Crossing of the Fathers”; the second at Lees Ferry, known in Navajo as “Crossing against the Current.” Seasonal water levels of the river would play a key role in where and when these crossings could be made as men and livestock had to ford or swim, which was extremely dangerous for both.

In 1870-1871, two events would change the dynamic between the Diné and the LDS. In 1870, a peace treaty designed to end the “Navajo-Mormon War” was signed at Fort Defiance. One year later, John D. Lee was assigned by leaders to establish a ferry service at the location which would later bear his name. The intended purpose of the ferry was to provide an established crossing to allow colonization of northern Arizona by church members, which was successfully accomplished over several decades. But it also would provide the Native Americans with a safer and more convenient crossing to travel west and north.

Two days after Lee’s arrival, his first “customers” appeared on the east side of the river and communicated their desire by whooping and yelling that they wanted to cross. Lee patched an old boat he had found and with family members assisting, transported 15 Diné across who had goods they wished to trade for livestock. This was the beginning of an ever-increasing flow of Native Americans crossing the Colorado River at this location in order to conduct trade with settlers in Kanab, Utah, and other LDS towns, as well as with Lee. The Diné were the most frequent travelers and they would eventually change their name of the crossing to “where the boat sits.”

The Diné usually would bring their handwoven blankets to trade for horses. But members of other tribes, including the Hopis, Paiutes and Utes, also would cross, bringing numerous items for barter. Members of the various tribes also would continue to cross as they had for years to harvest the abundant mule deer residing on the Kaibab Plateau. This practice was so prevalent that the early white settlers referred to the plateau as Buckskin Mountain.

The Bitter Springs Trading Post, once located near the mouth of Tanner Wash, was established in 1920. The trading post served many purposes: it provided a safe place to trade merchandise and products brought to the area by Anglo-Americans; it was a place to send and receive news of happenings in the surrounding areas; and it exposed the general public to local Navajo arts and crafts, such as rugs and jewelry. The latter greatly increased the demand for these items, turning Navajo weavers and silversmiths into local heroes. These Navajo artists satisfied their audience with intricate and awe-inspiring designs. One design well-known for the Bitter Springs area is the Pictorial Rug Design. The pictorial rugs are woven with backdrops of landscapes, depictions of hogans, sheep, horses, birds and everyday living activities. Another popular rug design is the Tree of Life. Rug designs also have Navajo baskets with corn stalks growing and a bird sitting on each of the leaves of the corn stalk.

Over time, two other trading posts were developed and operated businesses in two different locations near the junction of U.S. 89 and U.S. Highway 89A. Currently, Bitter Springs does not have a trading post in the area.

These days the automobile has replaced the horse as the primary mode of transportation and two Navajo Bridges have replaced numerous ferries and operators. Native Americans still continue to travel across this route, now known as U.S. Highway 89A, to those same towns and cities to engage in trade and commerce. Today, Bitter Springs boasts a population of 520 people with 104 homes scattered throughout the Bodaway/Gap Chapter area. A 75-unit subdivision houses the majority. A majority of the Diné people continue to tend livestock, openly grazing horses and cattle throughout the main thoroughfare. Most people find employment in Tuba City, Page, Marble Canyon and surrounding areas along the Vermilion Cliffs. Children are schooled in Tuba City, Gap or Page.

The Diné people continue to look toward the future with fresh possibilities of developing their community, as well as commercial and tourism prospects.

Spanish History

Although considered a failure in the annals of Western exploration, the Dominguez-Escalante expedition nonetheless made important contributions to the history of the Arizona Strip. Its journals offered the first written descriptions of the topography of the region, noting the location of springs and describing features that are recognizable today. More importantly, they described Southern Paiutes living in the region, with some commentary on local adaptive strategies. Escalante also was the first European to recognize geographical and linguistic distinctions among the Southern Paiute.

Friar Silvestre Velez de Escalante's plan was to establish a line of communication between the older settlements of New Mexico and the new ones on the California coast. This plan called for an expedition of 14 men to travel north until they were above the Grand Canyon and then head west in a direct course for California.

On July 29, 1776, the expedition left Santa Fe. For the next three months, the party moved north through western Colorado, traveled across eastern Utah, turned south at Utah Lake following the Wasatch Front and eventually crossed the Virgin River near present-day La Verkin, Utah. The explorers eventually crossed over the Hurricane Cliffs, southeast of St. George, Utah, and traveled into northern Arizona, crossing the north end of the Kaibab Plateau.

The expedition descended into House Rock Valley, and, while following the base of the Vermilion Cliffs, arrived at the Paria River. They attempted a crossing of the Colorado River near Lees Ferry and then traveled a little way up the Paria River to gain access to the "Ute Crossing" (also known as The Crossing of the Fathers) now under Lake Powell.

In all, the expedition traveled for more than six months. In that time, the explorers never made it to California; instead, they made a huge, rambling 2,000-mile circle through the Colorado Plateau, Great Basin Desert and mountains of the West. Yet the expedition could not be called a failure. While no direct link was established between Monterey, California and Santa Fe, New Mexico, the interior West had at last been explored and

chronicled. Father Escalante's journals and maps would become invaluable to those who would follow, opening what would be called the Old Spanish Trail 540 years later between Santa Fe, New Mexico and California. Along the



Map of Dominguez-Escalante route on a Vermilion Cliffs Highway Project interpretive sign

corridor route, the San Bartolome Campsite can be found near the highway. This campsite, located in House Rock Valley, north of the Vermilion Cliffs, is one of the few points they visited on their journey that historians can be reasonably certain of from their descriptions.

Fredonia History

(Compiled with assistance from The Fredonia Historical Society)

Fredonia was originally a colony of Kanab, which was the southernmost Utah outpost of the LDS Church in the 1870s. The town arose when the population of Kanab had outgrown its capacity for water and land, and because much of Kanab's farmland was washed away in floods in 1883. A group of LDS Church leaders decided something needed to be done to expand resources. Therefore, in 1884 a group of men met with the intention of building a dam along the Kanab creekbed to start the new community.

The town lies three miles south of the Arizona-Utah border. The first house was built about two miles south of the present town in 1886 by Thomas F. Dobson, who had helped construct the fort at Pipe Spring about 15 years earlier. Along with Dobson in this contingent of pioneers was Thomas P. Jensen, Fredonia's first bishop.

Early floods in the 1880s deepened the channel of Kanab Creek and made it more feasible to build a dam and reservoir to irrigate the lands in Fredonia. A few people dug wells, but the quality of the alkaline water did not prove satisfactory. Rainwater was collected by means of eave troughs on the buildings.

Schools

Two years after Fredonia's settlement, Lucinda Stuart Brown started a school in her home. In 1890 a one-room building was erected, and in 1891 there were 22 children of school age in the district. Coconino County School Superintendent J. E. Jones defined the district as "all that portion of Coconino County north and west of the Colorado River." By 1903 there were 50 pupils and a second room was added and two teachers employed.

In 1930-1931, the junior high school was added, and in 1932 the first senior class of Fredonia High School had a graduating class of three. The school building burned down during the next school year, but a new and enlarged school was built for the class of 1934. In 1957, an addition was made to the building that still serves the elementary grades. A new high school building was dedicated in 1974.

At what is now the corner of Jensen and First streets, the first store was erected by Soren C. Jensen. It also held the first post office. Jensen freighted supplies from Marysville, Utah, using two wagons with teams of five horses each on round trips, which took three weeks for the 246 miles. Mail service came to Fredonia in 1892, but for a time the mail was brought from Kanab only twice a week.

Roads and Industry

After the Navajo Bridge was completed and opened to traffic in 1929, the road between it and Fredonia was improved in stages. By 1937 the road was oiled from the bridge to the Arizona/Utah state line. After the completion of the Glen Canyon Dam and Bridge near the Utah line not far south of the Crossing of the Fathers, a new road was built east from Kanab on the Utah side of the border. This became the new route U.S. Highway 89 while the road through Fredonia to Navajo Bridge was designated U.S. Highway 89A.

Naming the Town

There has been some controversy over the years about how Fredonia got its name. Sara Jackson, a Fredonia historian, said that many names were considered: Hardscrabble, Lick-skillet, and later, Freedomkey, Stewart and Rockford. However, with no explanation given, the minutes of a water company meeting on January 12, 1889, refer to the name of the town as Fredonia. Thus it has been ever since.

Some have said the name Fredonia was suggested by LDS Apostle Erastus Snow. The name denotes a contraction of two words, the English “free” and the Spanish “dona,” “women,” meaning, according to theory, “free women.” This has been attributed to the need for a place of refuge for those families under siege in Utah because of anti-polygamy legislation. According to all the material evidence, Fredonia was originally started as a business venture.

Church of Jesus Christ of Latter Day Saints (LDS) History

The Euro-American colonization of southern Utah was initiated shortly after the arrival of LDS pioneers in the Salt Lake Valley of northern Utah in 1847. Within five years, LDS colonies had been established throughout southern Utah where the LDS came into contact with local Southern Paiute populations. That began a process of dispossession of local indigenous populations from traditional farming, hunting and gathering areas.

Early LDS were certainly familiar with the Arizona Strip through the first-hand accounts of travelers who braved the rugged terrain as early as 1847. An early expedition sought to return to Utah through Arizona, eventually crossing the Colorado River at the mouth of the Paria River. Their route took them along the base of the Vermilion Cliffs, across the north end of House Rock Valley and then over the Kaibab Plateau.

For the LDS colonizers of Arizona in the nineteenth century, the only temple in which a marriage could be made eternal, or “sealed,” was in St. George, Utah, which was constructed from 1871 to 1877. The Salt Lake Temple was not completed until 1894, after the historic period use of the “Honeymoon Trail/Old Arizona Road.” Young LDS newlyweds, married by civil authorities from central and eastern Arizona settlements, made a long journey by wagon, buckboard or horseback through rugged and inhospitable territory to St. George. The route became known as the “Mormon Wagon Road,” and later the “Honeymoon Trail.”

Travelers making this long trek used a trail system that crossed a rocky, sandy, arid region. Lees Ferry on the main trail became the most feasible place to cross the Colorado River, the most challenging obstacle along the route.



A portion of the Honeymoon Trail along Vermilion Cliffs

South of the river, the main road headed almost due south, much of it alongside the Little Colorado River to Sunset Crossing, where Winslow is located today. From here, routes led to LDS colonies in the Tonto Basin and the upper Little Colorado River Valley. An important part of this trail system also continued from Show Low southward to the Upper Gila River Valley. The distances of the various combined routes amounted to more than 450 miles.

Generally, several wagons traveled together, providing both companionship and security in case problems were encountered along the primitive road. These treks were usually made

in mid-November with the couples remaining in St. George for the winter, returning to Little Colorado in April. The route was traveled by so many newlyweds that it came to be known popularly as “The Honeymoon Trail.”

Jacob Hamblin

Jacob Hamblin was born April 6, 1819, in Ashtabula County, Ohio. In the autumn of 1839 he married Lucinda Taylor and settled down to start a family. In February 1842, Hamblin attended a rally where he heard LDS elders preaching. After listening to the elders preach, he felt compelled to join the LDS Church. Hamblin started missionary work almost immediately and became known as a faith healer.

Rachel Judd became his second wife. (Plural marriage was sanctioned at this time by the LDS Church. An official statement on October 6, 1890, ended the practice in accordance with the United States Congress, which forbade plural marriage.) His families moved west with the LDS, settling in Tooele Valley, Utah, and became acquainted with local Native Americans, who eventually viewed him as a friend. In 1854, Hamblin was called by the LDS Church to serve as a missionary to the Native Americans in southern Utah. He became known for his influence with Native Americans due to his integrity and willingness to be friends with them. He had many spiritual experiences that caused some Native Americans to consider him invested with godly powers. After serving in the Native American mission for more than a year, Hamblin moved his family from Tooele, Utah, to the small community of Santa Clara, due west of St. George, Utah. He then became president of the Southern Utah Indian Mission.

In March 1864, Jacob Hamblin and his men built a raft at the mouth of the Paria River and made the first successful crossing at the point on the Colorado that would later become Lees Ferry. All 15 men, as well as their supplies and horses were transported across the river. Hamblin was on a mission to warn the Navajo of northern Arizona to stop making raids into Utah, stealing livestock and threatening LDS expansion. The land into which the pioneers wanted to move was viewed as “unsettled” territory, theirs for the taking under the precepts of Manifest Destiny despite millennia of native occupation. Over the next few years, the “war” between the natives and the LDS escalated, with the Paiute beginning to make raids on Anglo settlements as well. In an effort to deflect native threats to their vulnerable southeastern frontier, the LDS posted guards at the Ute Ford “Crossing of the Fathers” and at “Pah-reah Crossing” (Lees Ferry) in the winter of 1869-1870. A small stone building and corral were erected and named “Fort Meeks.” Fort Meeks is no longer standing.

Hamblin led a missionary expedition to the Hopi mesas in 1868 and was the first LDS representative to visit Pipe Spring. In September 1870, Hamblin and Major John Wesley Powell concluded a peace treaty with the Shivwits Paiute at Mt. Trumbull. He, Powell and their Kaibab Southern Paiute guide Chuarumpeak, then continued to Pipe Spring where they met with LDS President Brigham Young. At this meeting, Brigham Young re-inspected Pipe Spring, which he had previously visited in April 1870. At that time he had directed that a fortified Church tithing ranch should be built at the site. Hamblin and Powell then continued to Fort Defiance, New Mexico, where they negotiated partially successful peace settlements with the Navajo.

Hamblin continued to serve as a missionary to the Native American tribes in southern Utah and northern Arizona until 1878. His lasting legacy was as a missionary and friend to the Native Americans, helping smooth relations between them and the more recent arrivals to the land. He was buried in Alpine, Arizona, in 1886.

John D. Lee

John D. Lee was born on September 12, 1812, in Kaskaskia, Illinois. It was in Vandalia, Illinois, that Lee met his first wife. After a brief courtship, Lee and Aggatha Ann Woolsey were married on July 24, 1833. At the age of 26, Lee converted to the LDS religion. Between 1839 and 1843, Lee served as an LDS missionary. His commitment soon got him chosen for membership in Joseph Smith's guard and Council of Fifty. Lee was a practicing polygamist, as was common at the time among members of the LDS Church. Due to this and some of the tenets of the religion, persecution from outlying communities forced them to flee their homes and seek refuge in what was then Utah Territory. After establishing a home in Salt Lake City, Lee heeded the Church's call to settle in the southern portion of Utah. He and his wives set up households in Parowan, Harmony and Panguitch. Lee was a prosperous farmer and businessman, establishing mining, milling and manufacturing complexes. In January of 1856, Lee was appointed as the United States government Indian agent for Iron County.

In September 1870, Hamblin guided an expedition from southern Utah to the upper Paria River, and on to Pipe Spring. LDS leader Lee was one of the men on that journey, which was sent to establish a ferry crossing. Another factor figured in Lee's new post: his supposed role in a bizarre and violent chapter in LDS history, the Mountain Meadows Massacre. Lee became the sole LDS scapegoat for the murder of 120 Eastern emigrants and was excommunicated from the LDS Church; his relative seclusion at the ferry kept him away from other LDS members and the federal authorities, while the LDS Church turned a blind eye to the situation.

Lee built stone and wood homes for two of his families that lived with him, as well as a dam and an irrigation system for farming. The ranch at Lees Ferry was named Lonely Dell due to its extreme remoteness. The LDS Church provided the lumber and manpower to build the first real ferryboat to be used on the Colorado River, which was first launched on January 11, 1873. Although the approach roads on either side of the river had yet to be built, wagonloads of colonists began arriving to be ferried across the Colorado River and begin new lives in LDS settlements in Arizona. Tensions between the LDS and the Navajo began mounting again in 1874, precipitating the construction of a defensive fort. It soon was converted into a trading post, and later a residence, school and mess hall. This building, the Lees Ferry Fort, is one of the few historic buildings still intact at Lees Ferry.

In 1877, Lee was executed by firing squad for his role in the Mountain Meadows Massacre. His body was buried in the Panguitch Cemetery. Lee was restored to membership in the LDS Church on April 20, 1961. During Lee's lifetime, he had 19 wives and 71 children. Ownership of the ferry operation fell into the hands of Lee's wife Emma, a capable woman who operated the ferry and farmed the ranch for several years. Emma Batchelor was born on April 21, 1836, in Uckfield, Sussex County, England. At the age of 21 she converted to the LDS religion. When Emma arrived in the Salt Lake Valley, she met John D. Lee. On January 7, 1858, Emma became Lee's 17th wife. Under the tutelage of Emma, the LDS Church became aware of the importance of Lees Ferry as a link between settlements in Arizona and Utah. In 1879, the Church bought the ferry rights from Emma Lee for \$3,000, and sent Warren Marshall Johnson and his plural families to take over operations at the ferry.

Mountain Meadows Massacre

After leaving Arkansas, the Fancher party (a.k.a. American western emigrants) traveled west through Kansas and Nebraska territories before entering Utah territory. In Utah, the party passed Fort Bridger and Salt Lake City, traveling southwest until reaching Cedar City, which was the last stop before California. Here, the Fancher party attempted to buy grain and supplies but were refused by the local LDS outpost due to their suspicions that the

Fancher party members were aiding potential enemies. Tensions grew as the party traveled through the state. Rumors ran rampant, including that members of the Fancher Party were boasting of participating in anti-LDS incidents in Missouri, Haun's Mill Massacre and the murder of Joseph Smith. Rumors also flew that they were poisoning springs, killing Native Americans and an ox. Whether any of this is true and what actually happened at Mountain Meadows are still points of debate.

After the Fancher party left Cedar City, it continued southwest through a valley called Mountain Meadows. Here, the party stopped to rest and regroup its approximately 800 head of cattle. While stopped, the members were attacked by LDS assailants and some of them were killed. The remaining emigrants pulled their wagons into a tight circle for protection. During the next five days, the emigrants were held at siege in their wagon circle and were attacked two more times.

On September 11, 1857, John D. Lee entered the wagon circle with a white flag, convincing the emigrants to surrender peacefully. Required to put down their guns, the women and children were escorted out first, then the men and boys. Each man and boy was escorted by an armed militiaman. They walked about a mile when, upon a predetermined signal, the militiamen turned and fired on each man and boy. Native Americans, who had been convinced to participate in the massacre came out from their hiding places to attack the women and children. Only some accounts place Native Americans there – others say that this was done by LDS Church members dressed as Native Americans. While most of the Fancher party – about 120 people -- were killed, 17 young children survived and were adopted by local families. Two years later, in 1859, the United States government reunited these children with their extended families in Arkansas.

In 1857, the federal government sent 1,500 United States troops to Utah to deal with what it thought was a rogue sect. Many of the participants in the Mountain Meadows Massacre were prominent leaders of their communities and considered the attack a vital military action that protected their families. Others, especially new members and opponents of the LDS Church, saw it as a brutal massacre and demanded the men be punished.

As the highest-ranking militiaman at the scene, Lee was singled out to pay for the crime. When he arrived at the Paria Plateau in 1871, he was a fugitive and spent relatively little time actually working at the ferry and ranch, which now bore his name. Investigations, interrupted by the U.S. Civil War, resulted in nine indictments in 1874. However, only Lee was tried and, after two trials, he was convicted. On March 23, 1877, a firing squad executed Lee at the massacre site.

Ranching

Cattle and sheep became an integral part of the plateaus and valleys starting in 1870 when the LDS Church needed areas other than St. George to house their cattle. In 1870-1871 and again in 1876-1877, droughts in California drove large numbers of sheep across the Colorado River into Arizona. This was the first time sheepherders had begun grazing their flocks on the Arizona Strip. Ranching became a serious investment for the LDS Church from 1870 until about 1924.

The Pipe Spring area was established as the first large-scale ranching operation to house the additional cattle. Eventually sheep were added, with approximately 11,000 sheep grazing in the area. Due to droughts and the Edmunds-Tucker Act of 1887, ranching operations were dissolved in 1895. The Edmunds-Tucker Act of 1887 abol-

ished the LDS practice of plural marriage and reduced the temporal powers of the LDS Church. It gave the government the right to auction off any and all holdings of the LDS Church that were not linked to religious functions. Under this act, most of the ranching operations that the LDS were working had to be signed over to individual owners.

From 1871 to 1877, most of the cattle operations were limited to individual families on the northwestern portion of the Kaibab Plateau. Around 1874, the United Order of Orderville (UOO), an outgrowth of the LDS Church, sponsored a cooperative movement. This successful communal organization ranged sheep and cattle. In 1881, during its heyday, the Order had 5,000 sheep and 5,000 head of cattle. Eventually, this operation dissolved due to the Edmunds-Tucker Act of 1887 and internal dissension within the UOO.

The UOO and another ranching operation were combined to form the Kaibab Land and Cattle Company. This operation increased its concentration of cattle grazing while reducing the amount of sheep grazing. By 1897, the Kaibab Land and Cattle Company ran 33,000 head of cattle on the Kaibab Plateau and in House Rock Valley. This operation ran from 1888 to 1897 when it was sold to Benjamin Franklin Saunders, who operated the Bar-Z Ranch until about 1909. Around this time, E.J. Marshall created the Grand Canyon Cattle Company (GCCC), which included Saunders' holdings on the Arizona Strip, controlling most of the range until 1924. This area amounted to approximately 1,750 square miles.

The GCCC opened up a large expanse of Arizona. By 1909, Lees Ferry and the Lonely Dell Ranch were sold to the GCCC and became the headquarters for the easternmost section of their huge ranch. Jerry and Frank Johnson were recruited to manage the Lonely Dell Ranch and oversee the ferry operations. The GCCC owned the Lonely Dell through 1925, yet had little interest in operating Lees Ferry. By 1910 they had sold the ferry to Coconino County.

Fencing off the different ranges started in 1911 when a 40-mile drift fence was installed to keep the Bar-Z cattle to the east of the crest of the Kaibab and allow smaller interests to use the western side. In 1934, the Taylor Grazing Act was signed and the range continued to be divided into more and smaller allotments, with the livestock grazing privilege on federal lands provided to the different landowners and permittees.

Due to overuse from the 1800s until the 1920s, ranching up to the present day has been reduced greatly. The U.S. Forest Service has had to attempt restoration methods for meadows and grasslands because of their poor conditions. The BLM has also limited the amount of cattle allowed on livestock grazing allotments.

John Wesley Powell

On May 24, 1869, 35-year-old Major John Wesley Powell and nine men he recruited for a monumental journey pushed their boats from shore and headed down the Green River from Green River, Wyoming. The expedition floated down the Green to the confluence of the Grand River flowing west into Utah, where they then merged into the Colorado River. During the next three months, they ran the swollen rivers until they reached the mouth of the Virgin River. On August 30, 1869, Powell's expedition met up with three LDS men from St. Thomas, Nevada, who had been sent to the shore to await them and replenish their provisions. The adventurers had not been heard from since their departure and were presumed dead. The expedition had started with 10 men and four boats, and ended with six men and two boats. One man hiked out at the Uintah Agency, and one boat was lost in the rapids

at Cataract Canyon. Two days from the mouth of the Virgin River, three members of the party decided to leave the expedition. Assured the others would perish in the rapids below, they chose to hike out onto the Shivwits Plateau and travel to the LDS settlements in southern Utah. These three men were never seen again.

Powell's trip brought him honor and fame and marked a successful Euro-American exploration of the West and the Colorado River through the Grand Canyon. Due to the overwhelming necessity just to survive the powerful, wild river, the scientific accomplishments had fallen short. Powell's fame allowed him to raise enough funds for a second expedition in 1871, which would produce what the first did not -- a map and scientific publications. To ensure a successful second expedition, Powell had to resolve logistical issues. The first major setback of the first expedition was that there were only two known resupply points along the river, Gunnison Crossing in east central Utah and the mouth of the Virgin River. The boats were heavy and difficult to maneuver and would capsize in the rapids, losing critical food supplies. Powell needed to find at least two to three more routes to the river. The second issue was the interaction with the Shivwits Band of Paiute Indians north of the Colorado River. The band had allegedly killed the three members of the party who had left the first expedition.

Powell returned to Salt Lake City and sought the advice of Brigham Young concerning his planned reconnaissance. Young recommended Jacob Hamblin as a guide and interpreter. The timing of Powell's meeting with Young indirectly involved him in several important historical events on the Arizona Strip. He witnessed the consecration of Kanab on September 10, 1870; he traveled to Pipe Spring and watched Young and Anson Winsor pace out the perimeter of a planned fort and ranch headquarters later to be known as Winsor Castle; and during this same travel, Young instructed John D. Lee to move to Skutumpah, north of Kanab, to help establish a sawmill that would supply lumber to the new settlement at Kanab and the planned construction project at Pipe Spring.

Powell, Hamblin, Powell's two assistants and two Kaibab Southern Paiute guides left Pipe Spring to meet with the Uinkaret Paiutes and the Shivwits Band of Paiutes. While waiting for the Shivwits Band to arrive, Powell took advantage of learning about the Uinkaret culture and to gather information regarding possible routes into the Grand Canyon. The Uinkarets showed Powell a route, but it was too steep to be used as a supply route. The Uinkarets grew wary of showing them an easier route for fear of more white men coming in and destroying their lands. When the Shivwits Band arrived, Hamblin introduced Powell, who then went on to explain his itinerary for the coming year. He received assurances that his men would have safe passage through the territory in the future.

Powell's intent was to spend the fall of 1870 scouting out routes to supply points along the Colorado River, but Hamblin was unable to fulfill his commitment due to his appointment to be the United States Indian Agent for Utah. So on May 22, 1871, Powell departed from the Green River on his second expedition faced with the same logistical difficulties as the first expedition.

Of all the family and friends that traveled with him, it was Powell's brother-in-law, Almon H. Thompson, a botany professor from Illinois, who deserves most of the credit for the success of this expedition. Professor Thompson was responsible for the topographic mapping and on several different occasions was left in charge of the whole expedition. Powell would make many departures from the expedition for a variety of reasons.

The explorers had many base camps in order for them to perform the topographic survey of the plateau. On December 14, 1871, Thompson initiated the first phase of the topographic survey by establishing, through astronom-

ical observations, the longitude and latitude of a fixed point near the Kanab Gap base camp. This station served as part of the baseline that went southward as far as the Red Hills, and east of the present day town of Fredonia. During the baseline survey, the exact location of the 37th parallel, marking the Arizona-Utah boundary, was determined for the first time. For the next six months the surveyors, using the geometric principles of triangulation, roamed extensively over the Arizona Strip, leaving many station markers for later use.

In August 1872, Powell rejoined the expedition at the mouth of the Paria River. Two weeks later, after arriving at Kanab Creek, word was sent that the Shivwits Paiute were planning to ambush his party downstream. This news, along with high water levels, discouraged Powell from proceeding. With the consent of all his men, the trip was cut short and they left the river by way of Kanab Canyon.

On September 11, 1872, the Powell Party was back in Kanab preparing for the last phase of the survey. This final step would involve revisiting mapping stations on the Paria, Kanab and Uinkaret plateaus as well as conducting reconnaissance of the Shivwits region. To finalize all this information, an astronomic station on the north end of the Kanab baseline would need to be established in order to exchange time signals with the observatory at Salt Lake City. This would allow Kanab and the surrounding territory to relate to the rest of the United States. In order for this to happen, the aid of a telegraph would be required. Telegraph wires reached St. George in 1869, but it took a trip to Salt Lake City by Powell himself to get the line constructed to Kanab. In December 1872, the telegraph in Kanab was in operation and time signals were successfully exchanged. The final product of Powell's survey was completed in January 1873, and was sent to Washington D.C.

Powell continued bringing awareness to the Grand Canyon by commissioning a famous artist to paint the geological wonder. Not only did the awe-inspiring artwork capture the public's attention, but it also attracted the attention of the United States Congress. A painting of one of the many vistas at the Grand Canyon was purchased in 1874 by the federal government and was hung in the main hall of the Capitol. This assured future funding for Powell's continued topographic survey work. Powell also recruited two well respected geologists to assist on his survey team. Their new methods refined the previous survey completed by Thompson, and was subsequently

incorporated into the first U.S. Geologic Survey (USGS) topographic quadrangle maps of the Arizona Strip Region.

Powell's preoccupation with his studies of Native American language and culture led him into the head position for the newly created Bureau of Ethnology in 1879. He later became second director of the USGS. With honors bestowed a Civil War veteran, Powell was buried in Arlington Cemetery.

Historic Places

Navajo Bridge

Those traveling across the country on U.S. Highway 89A between Bitter Springs and Jacob Lake, Arizona, arrive at two

bridges similar in appearance, both spanning the Colorado River. These two bridges, one historic and one modern, represent one of only seven crossings of the Colorado River for 750 miles.



Historic, right, and modern, left, Navajo Bridges, view from the east

In the 1870s, pioneers from Utah began to expand their settlements into northern Arizona. Nearly 600 miles of deep canyons along the Colorado River stood in their way. One of the only places a wagon could reach the river from both north and south was at the mouth of Glen Canyon. Since the area was accessible and was a natural corridor between Utah and Arizona, a ferry was established there in 1873.

Lees Ferry became an important route for pioneers, settlers and local traffic. In the 1920s, automobiles began using the ferry as a means to cross the Colorado River. But it became apparent that a safer, more reliable way for vehicles to cross was needed. A bridge site was selected five miles downriver at Marble Canyon. Construction of the bridge began in June 1927. In this rugged and remote country, it was difficult to get men, materials and equipment from one rim to the other, a distance of only 800 feet. The ferry was used to transport materials when possible. However, on June 7, 1928, the ferry sank while carrying a Ford Model T. The accident killed three men, one of them Navajo. Since the bridge, known then as Grand Canyon Bridge, was nearing completion, the ferry was not replaced. It was a historic day when, on January 12, 1929, the bridge was opened to traffic. The bridge dedication took place June 14-15, 1929. In 1934, after great debate in the Arizona legislature, the official name was changed to Navajo Bridge.

Navajo Bridge served the area well for 66 years. However, as automobiles and trucks became larger, wider, and heavier, the need for a stronger, wider bridge became evident. The historic bridge was only 18 feet wide and had a 40-ton limit. Approaches to the bridge on each side were dangerous with limited sight of oncoming traffic. Pedestrian safety was also a factor. Although pedestrians were not allowed on the bridge, the temptation was too great for many. During a 13-year period, 72 accidents occurred on or while approaching the bridge; eight of them resulted in fatalities.

The time had come to replace the historic bridge. It was decided a new bridge would be built just downstream from the existing bridge, with new approaches on either side. The historic bridge would remain and serve as a pedestrian bridge and provide visitors with a breathtaking view of the Colorado River 467 feet below. Construction on the new bridge began in May 1993. On May 2, 1995, two years after construction began, traffic was diverted onto the new Navajo Bridge. The dedication took place on September 14, 1995. The old Navajo Bridge was added to the National Register of Historic Places in 1981.



Navajo Bridge Interpretive Center

After completion of the new bridge, the old rest area on the west side of the bridge was remodeled and expanded to include an interpretive center. On the Navajo Nation (east) side of the bridge, there is an area for Native American craft vendors operated by the Antelope Trails Vendors Organization. The Navajo Bridge Interpretive Center opened for business in April 1997 and was dedicated on June 17, 1997.

Lees Ferry

Just upstream from the Lees Ferry Launch Ramp is the Lees Ferry Historic Site, as well as several other historic

buildings. Different ferryboats and pioneers, miners, Native Americans and tourists crossed here from 1872 until 1928. Of special interest is Charles H. Spencer. Little is known about the early days of Spencer's life, but he did work as a Teamster hauling supplies and equipment into mining camps in 1892. He soon became interested in gold mining and was the first to attempt extracting gold from the clay hills in 1910. This interest would have a profound and lasting effect on the Lees Ferry area. Two of the stone buildings, a steam boiler and the remains of a sunken paddlewheel steamboat, remain from his efforts. Today, Lees Ferry allows the visitor to step back in time and see how the pioneers lived and to experience the harsh desert environment they endured. Lees Ferry was added to the National Register of Historic Places in 1976.



Colorado River at Lees ferry

Ferry. The place was so isolated that the families working at the crossing needed to be self-sufficient, growing food for themselves and their animals. Hard labor allowed these families to change the barren desert into a green oasis. Throughout the years, the Lonely Dell was home to and supported many families. Life at the ranch was not easy. Even though it was situated between two rivers, actually getting water to the plants and animals proved a constant battle. Doctors and medicine were seldom seen in these parts, and something as innocuous as the common cold today could be a killer in the 1800s. The Johnson family lost four of their children to diphtheria, a disease that is commonly treated with vaccinations today. A cemetery at the ranch provides a solemn reminder of some of the trials endured by these pioneers. The Lonely Dell Ranch Historic Site was added to the National Register of Historic Places in 1978.



Lonely Dell Ranch



Honeymoon Trail map shown on a Vermilion Cliffs Highway Project interpretive sign

The Honeymoon Trail

Portions of the old road's well-worn tracks can still be seen, including near the Condor Release viewing site and at the vicinity of Pipe Spring where late 19th-century travelers would have naturally stopped for water. A portion of the Honeymoon Trail is shown on early 20th-century area maps as the "Kaibab Wagon Road" as it passes through the Pipe Spring vicinity. While native vegetation now obscures much of the old road within the monument itself, it can be very easily discerned as one looks southwest far across the landscape from Winsor Castle at Pipe Spring National Monument.

Jacob Lake

The historic Jacob Lake Ranger Station, built in 1910, is within a half-mile of the U.S. Highway 89A/SR 67 junction at Jacob Lake. Jacob Lake Ranger Station was added to the National Register of Historic Places in 1987. Jacob Lake Inn is historic, but is not eligible for the National Register of Historic Places due to its lack of sufficient historic integrity. It was built prior to the creation of Grand Canyon National Park. The original road to the Grand Canyon passed in front of the 1910 Ranger Station. At that time, forest rangers managed all the lands on the Kaibab Plateau as U.S. Forest Service lands. Construction of a road out to the rim began in 1913. Jacob Lake Inn was built to serve tourists going to Grand Canyon National Park—an event that did not occur until 1919. The inn originally was located north of the ranger station along the original route to the Grand Canyon, but was later moved to its present location sometime in the 1930s when the current highway route was defined. That was the same period when the lodges in Marble Canyon also were first built. The center stone building of the present-day lodge is from the original building, with the rest added on over the years. SR 67, designated both by the Arizona and the federal Scenic Byways Program as the Kaibab Plateau – North Rim Parkway, starts just past the facility and leads to the North Rim of the Grand Canyon.



State Route 67 heading south from the junction with US 89A

Jacob Lake Lookout Tower was officially listed on the National Register of Historic Places in 1988. The tower continues to be manned during fire season and is a very important tool for detecting fire on the Kaibab Plateau, which lacks mountain peaks and high points found in other forests.

Pipe Spring National Monument

Pipe Spring National Monument may be the least well-known of the 18 National Park Service units in Arizona. This is due, in part, to its isolated location on SR 389 approximately 15 miles west of Fredonia and at the edge of the wide, empty Antelope Valley on the Arizona Strip, cut off from the rest of the state by the Grand Canyon.

This park is rich with Native American, early explorer and LDS pioneer history. The first peoples here were the Ancient Puebloans (Anasazi to the Navajo, or E'nengweng to the Southern Paiutes), who inhabited the area from approximately 500 A.D. to 1300 A.D. The Southern Paiute people followed, and possibly to some extent merged with the Anasazi, and had lived in the Pipe Spring region for nearly three centuries by the time the European settlers began moving into this area.

In 1863, James M. Whitmore, from St. George, Utah, brought cattle to the area and established a ranching operation. In 1866, conflict with the Navajo and Ute throughout central and southern Utah and the Arizona Strip flashed into violence. Whitmore, his ranch hand and others were killed in Navajo raids. In response to the conflict Brigham Young directed the building of a fort at Pipe Spring – it was completed by 1872. A Church tithing ranch was also begun at Pipe Spring in 1870 and initially was managed by Anson P. Winsor, who became the namesake of the fort or “Winsor Castle.” This isolated outpost served as a way station for people traveling across the Arizona Strip. The LDS Church sold the ranch into private ownership in 1887, and it continued to operate as a large-scale ranch until the early 1900s.

In 1923, Pipe Spring National Monument was proclaimed and set aside as a memorial of Western pioneer life by President Warren G. Harding. The federal government purchase of the ranch was concluded in 1924, with contributions from the LDS Church and even from the first director of the National Park Service, Stephen Mather. Pipe Spring National Monument was added to the National Register of Historic Places in 1966, with Pipe Spring National Monument Historic District being added in 2000. Today the Pipe Spring National Monument-Kaibab Band of Paiute Indians Visitor Center and Museum explains the human history of the area throughout the thousands of years it has been in existence. Daily tours of Winsor Castle, summer “living history” demonstrations, an orchard and garden, as well as a half-mile trail, offer a glimpse of Native American and pioneer life in the Old West. The Southern Paiute Tribe also operates a small nearby campground.

Primary historic resources at the monument include three sandstone buildings (the Pipe Spring fort or Winsor



Pipe Springs fort and pond

Castle, east cabin and west cabin), the historic-period sites of the Whitmore-McInyre dugout, a lyme kiln and other structures, including stone walls, the quarry trail and the fort ponds. Reconstructed “historic” features include a vegetable garden, orchard, vineyard, telegraph line and corrals. Modern developments are located at the southernmost part of the monument and include a residential area, a maintenance area and an access road. There are three springs at the monument: the main spring (Pipe Spring), emerging from beneath the fort itself; tunnel spring (located just southwest of the fort); and cabin spring (a seep spring near the west cabin). The springs are fed by the Navajo Sandstone aquifer to the north and west, via the Sevier Fault. Because there is more than one spring at the site,

for many years it was referred to as “Pipe Springs,” although the monument’s official name was never plural. The monument occupies the Moccasin Terrace of the Markagunt Plateau at the southern sloping base of the Vermilion Cliffs.

Cultural Intrinsic Qualities

The Kaibab Southern Paiute celebrate Heritage Day annually at the Tribal Park. The celebration includes cultural demonstrations and pow-wows. It is held on the third weekend of August and is open and free to the public.

Established in August 1995, the Antelope Trails Vendors Organization’s goal is to assist and provide small business opportunities for local Navajo arts and crafts artists. The artists are entered into a monthly lottery, which is held on the last Thursday of each month. If chosen through the lottery, these artists will be able to sell their wares for the next month in various locations throughout the area. A portion of the funds generated from the monthly lottery is used for college, university and trade school scholarships, and monetary assistance for funeral arrangements or student school trip incentives.

Scenic Intrinsic Qualities

The U.S. Highway 89A corridor’s scenic intrinsic quality is defined primarily by geology and the natural history that is revealed in the exposed rock faces, but also by its remote locale. During the scoping process for the resource

management plan approved in 2008 for Vermilion Cliffs National Monument, the public frequently referred to the important relationship between the remoteness of the monument and the quality of visitor experiences.

The corridor lies in a sparsely populated corner of Arizona. Historically, except for the Native American inhabitants, people tend to pass through the region seeking real and metaphorically greener pastures or new frontiers to explore. As a result, the scenery is similar to the condition that has existed over the past 150 years. There are few rooftops marring the top of plateaus, seas of asphalt parking lots or rows of streetlights. There are no billboards; and cell phone connections are poor because there are few transmission towers.



Vermilion Cliffs and House Rock Valley, from House Rock Valley Overlook^{ti}

Visitors experience the corridor's scenery in steps - first, in a macro-panoramic way and, second, in a more intimate fashion when the bands of sedimentary rock and unusual formations call out for closer inspection or a photo opportunity. This is also one of the reasons that the corridor offers so many recreational opportunities; different scenic values appeal to different recreationalists. Panoramic views may make a long distance bicycle ride more enjoyable, while the hiker may marvel at the power that wind and water erosion have to create hoodoos, odd and whimsical rock formations where the lower rock has eroded faster than the upper part.

Some landscapes are more spectacular than others. In the corridor's sphere of influence, there is one national monument, one national park, one national recreation area, one national forest, two wilderness areas and access to slot canyons. The BLM, which manages the Vermilion Cliffs National Monument and the Paria Canyon-Vermilion Cliffs Wilderness, uses visual resource management (VRM) designations to achieve visual management objectives.



MC Rainbow

The VRM class rating is an indication of the relative scenic value of an area, both on an absolute scale and in relation to other, potentially competing uses. VRM Class I designated areas receive the most protection, with the objective of this class being to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change of the characteristic landscape should be very low

and must not attract attention.

The objective for Class II designated areas is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color and texture found

in the predominant natural features of the characteristic landscape.

The Vermilion Cliffs National Monument Record of Decision and Resource Management Plan (2008) designated the Paria Canyon-Vermilion Cliffs Wilderness Area, which contains the scenic Vermilion Cliffs visible from the highway, as VRM Class I, and all other parts of the monument as VRM Class II.



Vermilion Cliffs along US 89A

The corridor lies in the Colorado Plateau geologic province. The plateau is high in elevation and composed of relatively flat-lying sedimentary rock such as sandstone, siltstone, limestone and shale. Sedimentary rock is created when different environments, such as an ancient seabed or swamp, deposit distinct layers of sediment that, when compressed by other rock deposited on top and cemented together by minerals, harden into bands of rock of various hues and thickness. These

layers also erode at different rates.

When geologic forces uplifted the Colorado Plateau, the sedimentary rock of the plateau was thick enough to sometimes fold, but not break. An example of this is the East Kaibab Monocline that forms the east side of the Kaibab Plateau traversed by U.S. Highway 89A. The layers of sedimentary rock remained relatively in the order in which they were deposited. The oldest rock (Vishnu Formation) would be at the bottom of the Grand Canyon and the youngest (Navajo Sandstone) would be the 1,500 feet or so of tan to red-orange cross-bedded sandstone that forms the upper part of the Vermilion Cliffs. Over time, the geologic processes of uplift and erosion, coupled with the cutting effect of the Colorado River, created the plateaus, slot canyons, basins and cliffs that make up the principal scenic resources of the corridor.

Views with significant scenic qualities:

- U.S. Highway 89A along Echo Cliffs between Bitter Springs and Navajo Bridge, looking northwest over the rolling House Rock Valley, Marble Canyon Gorge, to Vermilion Cliffs
- Original Navajo Bridge overlooking Marble Canyon at the Colorado River below
- Hoodoo rock formations on the access road to Lees Ferry and at Soap Creek, MP 547
- Slot canyons at Lees Ferry's Cathedral Wash and on the Paria Plateau
- Vermilion Cliffs and Badger Creek Canyon between MP 541 and MP 542
- House Rock Valley Overlook, offering a panoramic view over House Rock Valley, Vermilion Cliffs, Paria Plateau and Echo Cliffs
- Le Fevre Overlook, which offers views to the north of the Grand Staircase of which the Vermilion Cliffs is the lowest of a series of colored plateaus that step up the Colorado Plateau

Natural Intrinsic Qualities

U.S. Highway 89A is rich in natural resources – rocks, plants and animals. The number of public land management

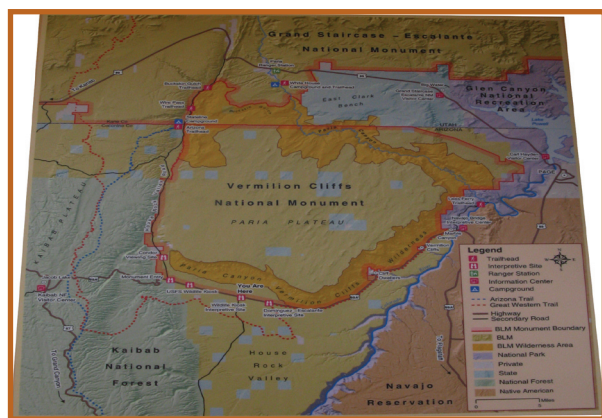
agencies operating in the corridor reflects in large part the quality of the natural resources in the corridor. Many recreational and scenic intrinsic qualities depend on the plants and wildlife and their habitats. Since it is almost impossible to separate the geology of the corridor from its scenic qualities, geology is treated as a scenic rather than a natural resource and is discussed in that section.

Kaibab National Forest

The U.S. Highway 89A corridor lies in the northern division of the Kaibab National Forest, north of the Grand Canyon. It has been a managed forest since the early 1900s. During that time, it has supported timbering as well as hunting and other recreation activities that depend on abundant wildlife and supporting habitat. The Kaibab National Forest is part of the largest contiguous ponderosa pine forest in the United States. Principal tree species are ponderosa pine, Douglas fir, Engelmann spruce, aspen, blue spruce, oak, pinion pine and juniper. In the fall, North Kaibab high country forests with open meadows are particularly colorful and scenic. As elevation decreases, trees give way to bitter brush, gambel oak, sagebrush and cliffrose. Large game animals include the Kaibab mule deer, elk, bison and pronghorn. Predators include mountain lion, bobcat and coyote. The most well-known small game animal is the Kaibab squirrel.



US 89A winds through the Kaibab National Forest as it crosses the Kaibab Plateau



Vermilion Cliffs along US 89A

Vermilion Cliffs National Monument

Vermilion Cliffs National Monument was designated a national monument by presidential proclamation on November 11, 2000. Despite sporadic rainfall and widely scattered ephemeral water sources, the monument supports a variety of wildlife species. At least 20 species of raptors have been documented in the monument, as well as a variety of reptiles and amphibians. California condors, desert bighorn sheep, pronghorn, mountain lion, mule deer and other mammals roam the canyons and plateaus. The Paria River supports sensitive native fish, including the flannelmouth sucker and the speckled dace.

The BLM considers portions of the monument as important habitat for the mule deer herd, which may seek lower elevation in House Rock Valley during winter. The agency has worked with the AGFD to restore desert bighorn sheep to the Paria River drainage. These releases have successfully restored desert bighorn sheep into the lower Paria River and upper Grand Canyon areas.

Glen Canyon National Recreation Area

Wildlife in the Glen Canyon National Recreation Area include desert bighorn sheep, mule deer, small mammals such as desert cottontail, black-tail jackrabbit, cliff chipmunk, rock squirrel, coyote, gray fox, badger, ringtail and

birds of prey. California condors may be visible from Navajo Bridge. Waterfowl and gulls also may be observed, particularly at Lees Ferry during the spring and fall migration and in winter. The shade trees and orchards at Lonely Dell Ranch Historic Site near the mouth of the Paria River and Lees Ferry attract a number of songbirds during the spring and fall migration. Birds that nest in the tamarisk trees where there is water include Cooper's hawk, Say's phoebe, Lucy's warbler, yellow-breasted chat and Bewick's wren.



Lonely Dell Gardens

The flow of water released out of Glen Canyon Dam has a significant habitat impact not only on the cold water fishery immediately below the dam, but also on the native fish population and the riparian vegetation along the river. Environmental groups have indicated while there have been a few high volume spring releases in recent years meant to imitate the seasonal floods that existed before the dam, the practice of irregular volume releases damage the fish habitat and erode beaches downstream. On May 28, 2009, a federal judge ordered the U.S. Bureau of Reclamation to reconsider how water is released from Glen Canyon Dam into the Grand Canyon to protect an endangered fish, the humpback chub. It is unknown how this ruling will impact the popular tailwater

fishery, the riparian habitat along the river and the experience of visitors taking raft trips down the Colorado.

The following resources contribute to the corridor's natural intrinsic qualities:

- Wildlife - California condor, mule deer, Kaibab squirrel, desert bighorn sheep, pronghorn, golden eagle
- Plants- Several federally listed, sensitive and endemic plants
- Geologic formations – Echo and Vermilion Cliffs, Colorado Plateau, Marble Canyon and hoodoos
- Old growth ponderosa pine forest on the Kaibab Plateau
- Colorado and Paria Rivers and seeps and springs along the Vermilion Cliffs
- House Rock Valley grassland
- Dark skies
- Natural quiet

Recreational Intrinsic Qualities

U.S. Highway 89A has significant recreational intrinsic qualities because many of the recreational activities are unique to the corridor's environmentally sensitive lands and related to the scenic, natural and historic characteristics of the corridor. The corridor's recreational value plays a significant role in the local economy as both an attraction for visitors and a means of livelihood. In 2008, 9,909 people visited Dom Escalante Historical site, and more than 11,000 in 2006. However, no additional figures are currently available to quantify the number of people pursuing recreational activities along the corridor.

Most of the U.S. Highway 89A corridor is public land, with some tribal lands open to recreational pursuits by the public with permission. Below is a summary of the recreational intrinsic qualities offered by the land and the managing agencies.

Navajo Nation

Approximately the first 14 miles of U.S. Highway 89A are within the Navajo Nation. Recreational activities available with a permit on this land include hiking on trails to the Colorado River and hunting with a guide. The tribe has an office for managing wildlife and wildlife habitat. Also, jewelry and other Navajo crafts are available throughout the corridor for travelers looking for authentic Navajo items.

Kaibab Band of Southern Paiute Indians Reservation

The Kaibab Southern Paiute Indian Reservation is owned and operated by the tribe and includes a convenience store/gas station, along with an RV park and campground. The tribe has a health facility, open library and wireless Internet, and an annual guided trophy mule deer hunt. The Kaibab Southern Paiute also operate a partnership visitor center and cultural museum at the entrance to Pipe Spring National Monument. The monument can be accessed from SR 389, approximately 15 miles west of Fredonia. A Zion National History Association Bookstore, under lease with the tribe and in agreement with the National Park Service, is located in the visitor center. The tribe also is involved in agriculture and owns a fruit tree orchard. Because of its location in scenic northern Arizona, the Kaibab Southern Paiute economy centers largely on tourism and the livestock industry.

Bureau of Land Management (BLM)

Twenty-eight miles of U.S. Highway 89A lie on BLM-administered land, which abut the Vermilion Cliffs National Monument and the Paria Canyon-Vermilion Cliffs Wilderness Area and covers the land above Marble Canyon in Grand Canyon National Park. Another approximate eight miles of U.S. Highway 89A traverse BLM-administered public lands west of the Kaibab Plateau. The national monument and wilderness-designated lands are withdrawn from mineral entry and retained under federal administration. The monument and wilderness designations protect the wildlife, wildlife habitat and require management in accordance with the BLM Arizona Strip Field Office and Vermilion Cliffs National Monument Resource Management Plans (2008). These plans ensure that the wildlife, endangered plants and animals, ecosystems, cultural resources and the land will continue to be protected. They provide a range of wildlife and scenic-oriented recreational activities, such as wildlife watching, photography, hunting, scenic touring, camping and hiking. Anyone interested in hunting should contact the Grand Canyon National Recreation Area for current regulations.

A principal recreational appeal of the monument is its remoteness and solitude. Hiking trails that take the visitor away from the road and into unique visual environments are very popular. Frequent destinations include the slot canyons of the Paria Plateau; the crack washes such as Soap Creek, leading down to the Colorado River; and the rock formations along the base of the Vermilion Cliffs. Between the community of Marble Canyon and House Rock Road are five “Z” gates providing parking and access to the base of the Vermilion Cliffs. For the distance hikers, several multiuse regional and historic trails traverse the monument.

Most of the dirt roads on the BLM land and some of the trails, principally in House Rock Valley, are open to motorized off-highway use and during the winter to snowmobile use if conditions allow. These routes are also used by mountain bikers, wildlife viewers, and hunters, as BLM land is open to hunting with permits, except for wilderness areas.

National Park Service (NPS)

U.S. Highway 89A provides direct access to the southern portion of GCNRA, which includes Lees Ferry; trail access to the Colorado River in Marble Canyon; and indirect access to the North Rim of Grand Canyon National Park via SR 67 at Jacob Lake. The NPS primarily manages conservation of resources and education. Principal recreational activities in these parks are water-oriented, such as fishing and river rafting. Hunting is not allowed in Grand Canyon National Park. Primitive trails access the Colorado River for the fishing and hiking enthusiast and the photographer who is attracted to unusual rock formations and slot canyons. Lees Ferry offers a historic site with interpretive exhibits, as well as limited opportunities for camping and wildlife viewing. Boat docks allow motorized craft for fishing and sightseeing between Lees Ferry and Glen Canyon Dam. A beach serves as the starting point for raft trips downstream and wade fishing. It also functions as a transportation center, shuttling hikers coming out of the Paria River canyon back to their lodging or vehicle, and bringing in trailers of rafts and buses of whitewater rafters.

Kaibab National Forest

U.S. Highway 89A traverses approximately 27 miles of the Kaibab National Forest managed by the USFS. The USFS manages the land for multiple uses and offers the greatest variety of recreational activities over the longest season. In addition, the forest is closer to populated communities than the southern end, and it benefits from visitors passing through to the North Rim of the Grand Canyon. The main recreational pursuits include:

- Wildlife viewing
- Hiking and backpacking
- Big game hunting
- Bicycling – road and mountain
- Camping
- Nature walks
- Sightseeing
- Snowmobiling
- Off-road vehicle use
- Nordic skiing
- Horseback riding



Kaibab National Forest Visitor Center at Jacob Lake

One of the major appeals of the Kaibab National Forest for the recreational visitor is the variety of lodging options: commercial lodging, public and private campgrounds and RV sites with services, and the ability to camp almost anywhere with certain restrictions.

Interstate Trails

There are several regional trails that traverse the corridor and land management areas, including the newly designated Arizona National Scenic Trail, which runs north-south through the state. They provide a recreational option for hikers, mountain bikers, equestrians, history buffs, sightseers, photographers

and wildlife viewers. They are described below:

Arizona National Scenic Trail

This nationally designated scenic trail is a system of connected trails that will eventually extend from the Arizona-Mexico border to the Arizona-Utah state line. The trail will be 800 miles long and is intended for non-motorized use by hikers, equestrians, mountain bikers, and cross-country skiers. The trail currently needs 40 more miles of construction to be completed. This is a primitive long-distance trail, traversing a scenic and natural corridor that highlights the state's topographic, biologic, geologic, historic and cultural diversity.

This trail is promoted, maintained, planned, built and protected by the Arizona Trail Association. This association has partnerships with the Arizona State Parks, USFS, NPS, BLM, Pima County, and many other governmental and non-profit organizations.

Signing for the trail is infrequent and consists of brown fiberglass posts with Kaibab Plateau trail decals near the top on the national forest and BLM signs on the 14 miles managed by the BLM Arizona Strip Field Office. Within the corridor, the trail traverses the Kaibab Plateau and the Buckskin Mountains, north-south with trailheads near the North Rim of the Grand Canyon, off SR 67 south of Jacob Lake, at Orderville Canyon (MP 577) where the trail crosses U.S. Highway 89A, and at the Arizona-Utah border off BLM Road 1065. This last trailhead is located conjointly with Stateline Campground, which has restrooms, interpretive signs and shade shelters.



Arizona Trail map on a BLM exhibit



Arizona Trail map on a BLM exhibit

Great Western Trail

This is a multi-use, motorized and non-motorized trail system that will run from Mexico to Canada when completed. The trail is managed and maintained by the Great Western Trail Association. It has numerous partnerships with national, state and local agencies.

The Arizona section can accommodate a variety of trail uses, both motorized and non-motorized. With the exception of U.S. Highway 89A, which is paved, the route generally follows primitive dirt roads. Near Bitter Springs, the topography forces travelers heading north onto the paved U.S. Highway 89A, approaching the Navajo Bridge above Marble Canyon. Travelers remain on U.S. Highway 89A passing below Vermilion Cliffs. Near House Rock Valley, the route veers off the pavement onto Forest Service Road 8910 to the south, then climbs steeply west into the Kaibab National Forest. Traversing north along the Kaibab Plateau, the trail crosses U.S. Highway 89A a few miles east of Jacob Lake, and

eventually follows a portion of the Arizona and Honeymoon Trails before descending west and north into Utah. Signage is limited, and there are no marked trailheads.



Portion of Honeymoon Trail in House Rock Valley

Honeymoon Trail

This is a historical wagon trail used by residents of the Little Colorado River area, central and southern Arizona and northern Mexico to access the LDS Temple in St. George, Utah, following parts of a much older Hopi-Paiute trail used for centuries prior to the arrival of Europeans. At times the trail runs alongside and near U.S. Highway 89A from House Rock Road to Lees Ferry. The route is managed by the BLM. It is an intertwined motorized and non-motorized trail system. The entire route may be used for hiking and horseback riding. Portions of the route that correlate with designated roads are accessible to off-road vehicles and scenic driving. Only segments of the

trail are accessible as some of it lies on private lands. Within the BLM-administered lands, the trail is signed with 4"x4" wood posts.

Dominguez Escalante Trail

This is a historical trail that runs through and around U.S. Highway 89A and its surrounding areas. It is not a trail that can be used as it is difficult to follow the remnants of the trail on the ground. An interpretive area for this trail lies south of the Vermilion Cliffs, near MP 557.7 on U.S. Highway 89A. It is signed with a tall white stone monument at this waypoint, which has interpretive signs, a vehicle turn-around and a picnic table. Another similar monument is located on the north side of the parking lot at the stone house at Marble Canyon Lodge. The paved pullout is signed in both directions on U.S. Highway 89A. This trail is a part of the Old Spanish trail, which is a series of known trails that were established by Spanish explorers, trappers and traders. The eastern areas of what became called the Old Spanish Trail include northern Arizona, southwest Colorado and southeast Utah.



Dominguez-Escalante expedition
historical marker

Selected Recreational Activities

Rafting and Fishing

The Colorado River is key to the recreational quality of the southern portion of the U.S. Highway 89A corridor. Rafting the Colorado River downstream from Lees Ferry through Marble Canyon and into the Grand Canyon provides an excellent way to experience the natural beauty of canyon country, view wildlife, hike side canyons, camp under the stars and experience the excitement of whitewater rafting.

For fishermen, the Lees Ferry tailwater fishery is world-renowned and a destination attraction. It extends for 15 miles downstream from Glen Canyon Dam to Lees Ferry. Only artificial lures are allowed and there is a slot limit for rainbow, cutthroat and brown trout. Local guide services are available to provide boats and advice. Fishing is from

a boat or by wading over the gravel bars of the Colorado River. A boat dock is located at Lees Ferry.

From Lees Ferry downstream it is possible to wade fish, and there are trails that follow drainages from Marble Canyon Rim to the Colorado River to wade fish. However, wading in the Colorado River is dangerous because of the speed of the water flow, and the bottom is rocky and slippery. For the infrequent visitor not familiar with the waters, wade fishing without a guide should be done with caution.

Hiking

Hiking is perhaps the most popular recreational activity throughout the entire corridor. Vermilion Cliffs National Monument's major attraction is multi-day backpacking trips through slot canyons on the Paria River-Vermilion Cliffs Wilderness. Only the trailhead for the end of the Paria River at Lees Ferry is convenient to the corridor, so pursuing other routes requires logistical planning.

Numerous day hikes are available throughout the corridor, generally on unimproved trails with limited signs, requiring some route-finding skills. These hikes, however, are good for exploring the local geology, enjoying the scenic display of strange-shaped, various-hued rocks, taking photos and viewing wildlife. Hiking on the Kaibab Plateau is about enjoying panoramic vistas, wildlife viewing and exercising in a cool environment. There are few hiking options between the Kaibab Plateau and Fredonia.

Biking

Biking along the corridor is a recreational activity for both road bikes and mountain bikes. U.S. Highway 89A is popular with long-distance road bikers, although there are no paved shoulders, and bikers must share the road with large trucks. Roads and trails on BLM- and USFS-administered lands are popular with mountain bikers.

Camping

At the southern end of the corridor, the only developed campground is at Lees Ferry. The Vermilion Cliffs National Monument has Stateline Campground, a primitive campground north of the corridor on the west end of the Paria Plateau near the Utah border. The Kaibab National Forest offers public and private campgrounds and RV sites with various levels of amenities. Camping outside of designated campgrounds is allowed on USFS- and BLM-administered lands with some restrictions. Visitors should seasonally watch for fire restrictions in the national forest. Visitors can contact the Kaibab National Forest Visitors Center or their Web site for fire restrictions.

Hunting

Hunting is available on all public lands throughout the corridor. Hunting is also available on the Navajo Nation. All hunting is regulated, either by AGFD or the Navajo Nation. Two Game Management Units (GMU) have been established on the Arizona Strip by AGFD that impact the corridor. GMU 12A includes USFS lands over most of the Kaibab Plateau and the House Rock Valley. GMU 12B includes BLM and GCNRA on the Arizona Strip from Kanab Creek east to the Colorado River and south to the Kaibab National Forest. Wilderness areas are open to hunting, but motor vehicles, as well as mechanized equipment such as generators and chain saws, are prohibited in wilderness areas. These uses are restricted during extreme forest fire danger seasons.

The most popular big game animal on the corridor is the mule deer. Other animals that can be hunted include

bison, elk, pronghorn, desert bighorn sheep, turkey, upland game birds and small game such as the Kaibab squirrel. Guide services are available. Hunting is a great way to enjoy the scenery. Participants can spend many days in the GMU area and make repeat visits until their game tag is filled.

Wildlife Viewing

Wildlife viewing is a recreational pursuit that is available throughout the corridor. One of the main wildlife draws is the California condor release site north of U.S. Highway 89A via House Rock Valley Road-BLM 1065. The viewing area offers a restroom, interpretive signs and shade structure. Condor viewing during the spring is also good at Navajo Bridge. In 2008, a condor pair had a nesting cave in the walls of Marble Canyon. Bird watching for migrating song birds is most productive near water. The Kaibab Plateau is home to a large population of goshawks and 20 species of birds of prey have been recorded in the Vermilion Cliffs National Monument. Good optics are required to get good views of pronghorn and bison, as they tend to range over the expanses of House Rock Valley, and of desert bighorn sheep which inhabit portions of the Vermilion Cliffs. The Kaibab squirrel and mule deer are generally located on the Kaibab Plateau and can be viewed close up if one knows where they water and feed. Jacob Lake is a good location to catch sight of mule deer in all but the winter months, and the Kaibab squirrel can be seen around the Jacob Lake Visitor Center.

Inventory of Public Lands and Tribal Areas for Recreational Use

Vermilion Cliffs National Monument

Designated in 2000 and managed by the BLM, the monument is a work in progress. Vermilion Cliffs National Monument is open to travelers all year long. However, due to its rough terrain, unmaintained sandy roads, flash flooding and high temperatures during the summer, it is recommended that visitors plan their trips in the fall, winter and spring. The most popular time to visit is spring and fall.

Access

Access into the Vermilion Cliffs National Monument from U.S. Highway 89A has limited signage. Most visitors access the north side of the monument from Utah on U.S. Highway 89 to the House Rock Valley Road. From U.S. Highway 89A the most popular access is by vehicle to Lees Ferry, then hiking trails to Paria Canyon and Powell's Monument. Along U.S. Highway 89A between Marble Canyon and BLM Road 1065 west of House Rock, there are five "Z" gates (MP 553, 550, 545.4, 544.9, 540.5) on the north side of the road with pullouts and/or parking areas. These lead to named and unnamed trails providing access to the Vermilion Cliffs. North on BLM Road 1065 along the base of the Vermilion Cliffs there is access to trails leading to the cliffs, as well as the Condor Viewing Site. At the north end of the road at the Utah border is a trailhead to the Arizona National Scenic Trail at the Stateline Campground. This road continues north into Utah to access Wire Pass and Buckskin trailheads.

Points of Interest:

- Coyote Buttes
- Paria Canyon
- Paria Plateau
- Buckskin Gulch
- Condor Viewing Site

- West Bench Pueblo
- The Maze Rock Art Site
- Vermilion Cliffs base

Recreational opportunities:

- Hiking - there are four trailheads: the Notch, Lone Tree, Cottonwood Cove and Paw Hole.
- Bird watching, particularly for California condor
- Sightseeing
- Wildlife viewing
- Horseback riding
- Big and small game hunting.
- Outdoor photography
- Camping - two designated campgrounds, both with limited amenities
- Picnicking - two picnic sites
- Scenic and/or photo tours, hunting trips, day hiking, overnight backpacking and trailhead shuttle services
- Auto tours along House Rock Valley Road (BLM Road 1065), Lees Ferry and portions of the Honeymoon Trail
- Painting, drawing, self-reflection

Factors that may affect enjoyment:

- Motor vehicle travel restricted to designated roads. No off-road travel by motor vehicle allowed.
- Mountain bikes, hang gliders and all types of motor vehicles and mechanized equipment are prohibited in the Paria Canyon-Vermilion Cliffs Wilderness Area. The area is accessible on foot and the lower Paria Canyon is accessible by horseback.
- Permits are needed for day hiking and overnight camping within the Paria-Canyon Vermilion Cliffs Wilderness Area. A total of 20 visitors are permitted to stay overnight in Paria Canyon. Permits are available in advance on-line at:
http://www.blm.gov/az/st/en/prog/blm_special_areas/natmon/vermilion.html.
- Permits are required for downstream travel.
- Special recreation permits (SRPs) are required for vending, competitive, individual or group use in special areas and organized group activities and events. Commercial guiding/outfitting must comply with the monument's Resource Management Plan (RMP) and require an environmental analysis.
- Visitors must arrange with the BLM's approved shuttle providers on pickup/drop-off points and times if using trailhead shuttles.
- Limited visitor services. No visitor center. The Condor Viewing Site and Stateline Campground are ADA accessible.
- Poor cell phone reception.
- Potentially dangerous hiking conditions in slot canyons due to flash floods.

- Access to some sites is limited by remote locations over sandy roads requiring four-wheel drive vehicles or long hikes.
- Limited signage.
- Long-term parking is not available in the Monument. There is a lack of RV parking spaces at Navajo Bridge and Lonely Dell.

Trailheads

Lees Ferry Trailhead is located at Lees Ferry in the Glen Canyon National Recreation Area. Visitors who plan on traveling and hiking through the Vermilion Cliffs National Monument use this trailhead as either a starting point or destination for exploring Paria Canyon. Water and restroom facilities are available. It is also near a local campground that is maintained by the NPS.

Sun Valley Mine Trailhead is located at approximately MP 550 on the north side of U.S. Highway 89A. The trail is approximately two miles roundtrip. There is a dirt parking area by the side of the road, but no sign and no facilities. The trail begins by passing through the hiker's maze gate to enter the Paria Canyon-Vermilion Cliffs Wilderness Area and follows the road bed of an old mine north toward the Vermilion Cliffs. The trail is flat until the foothills at the base of Vermilion Cliffs. The road switchbacks up the slope, and there are good views of Echo Cliffs, Marble Canyon, and House Rock Valley. The road ends at an old uranium mine site. This trail provides a good introduction to the Vermilion Cliffs.

White House Trailhead is approximately 38 miles from the Lees Ferry Trailhead and adjacent to the White House campground. It lies north of the Utah-Arizona border. This trailhead provides visitors with a campground, parking area, restroom facilities, a visitor information area and hiking trailhead, but no water or trash service. There is no cell phone reception. \$6 dollar per day use fee.

Wire Pass Trailhead is approximately 44 miles from Lees Ferry Trailhead and north of the Utah-Arizona border off of House Rock Road (BLM Road 1065). The Stateline Campground is located south of this trailhead. This trailhead provides visitors with a parking area, restroom facilities, a visitor information area and hiking trailhead, but no water or trash service. There is no cell phone reception. This trailhead is used as an access point into the Paria Canyon and is the primary access point into the Coyote Buttes North. \$6 dollar per day use fee.

Buckskin Gulch Trailhead is approximately 47 miles from Lees Ferry Trailhead and north of Wire Pass Trailhead. It also lies north of the Utah-Arizona border. This trailhead provides visitors with a parking area, restroom facilities, a visitor information area, a hiking trailhead but no water or trash service. There is no cell coverage. Camping at this trailhead is permitted. The trail leads through the Buckskin Gulch slot canyon formed by a tributary of the Paria River. \$6 dollar per day use fee.

Glen Canyon National Recreation Area

Glen Canyon National Recreation Area is a recreation area in both Utah and Arizona. It is maintained and managed by the NPS. The southern section lies downstream of Glen Canyon Dam and includes Lees Ferry. Glen Canyon National Recreation Area is open to travelers/visitors all year long. However, facilities are limited during the winter season.

Access

Primary access to Glen Canyon National Recreation Area from U.S. Highway 89A is through Lees Ferry Road north of the Navajo Bridge. It is also possible to access Lees Ferry by hiking through the Vermilion Cliffs National Monument in the Paria Canyon or from the trails on the Navajo Nation side.

Points of Interest

Lees Ferry commemorates the settlement and ferry crossing that existed at one time here, and as such appeals to visitors interested in pursuing historic/cultural interests. Lees Ferry currently serves as an outdoor activity center for the southern portion of the Glen Canyon National Recreation Area below Glen Canyon Dam. This area provides visitors with a campground, parking area, restroom facilities, a visitor information area, hiking trails/trailheads, a public launching ramp and a ranger station.

This area is commonly used as a launching point for river rafters and hikers who travel downstream on the Colorado River into the Grand Canyon National Park. Fishermen also enjoy trying their skill on the 15-mile fishery upstream. Hunters enjoy the popular duck hunting season, and campers use NPS–maintained camp sites.

The launch site for trips downstream by both private and commercial operators is a gravelly beach. Trips are in non-motorized and motorized rafts, rowboats and kayaks, and involve a combination of rafting and hiking up side canyons. Trips vary from seven to 18 days. It can get quite congested on the beach during the most popular summer months. Permits are required, and travelers should note that once they start downriver, opportunities to disembark are a ways off.

Navajo Bridge Interpretive Center is a designated area that serves to educate and inform travelers/visitors about the two Navajo bridges and the surrounding area. It is located on the west side of U.S. Highway 89A, on the north side of Marble Canyon. Visitors can purchase books in the gift shop, view outdoor interpretive exhibits and walk on the historic Navajo Bridge to view down into Marble Canyon or look for California condors. Travelers also can purchase authentic Navajo arts and crafts from vendors on the site. The bridge itself is available to visitors year-round. It has picnic tables and restrooms and is fully ADA accessible. The interpretive center is open to visitors from April through November, 9 a.m. to 5 p.m.

Specific recreational activities related to Glen Canyon include:

- Slot canyon hiking
- Mountain biking
- Sightseeing tours on the Colorado below Glen Canyon Dam
- Fishing by boat or from shore
- Camping
- Hiking
- Educational tours of historic ferry site and Lonely Dell Ranch farmstead
- Picnicking
- Seasonal duck hunting

Trailheads

Paria Canyon Trailhead. The trailhead is at Lees Ferry, but the trail is mostly in the Paria River bed through the Paria Canyon-Vermilion Cliffs Wilderness Area. This trail offers a challenging 38-mile backpacking hike that takes four to five days to complete. It is a popular and picturesque slot canyon, but it can be hazardous during months prone to flash flooding. Generally, the hike starts at White House Trailhead in Utah and ends at Lees Ferry. Shuttle services are available. Advance permits are needed for overnight camping within the Paria-Canyon Vermilion Cliffs Wilderness Area. A total of 20 visitors are permitted to stay overnight in Paria Canyon. Permits are available in advance online at http://www.blm.gov/az/st/en/prog/blm_special_areas/natmon/vermilion.html.

Cathedral Wash Trailhead. This trail begins near the parking lot at Lees Ferry and the Powell's Rock Trail and can be hiked in either direction from the road. Instead of going into the Vermilion Cliffs, the trail descends through the spectacular Cathedral Wash to the Colorado River. It is a day hike of approximately 1.25 miles one-way. Hiking this trail may take from one-and-a-half hours to three hours depending on the level of experience. The lower portion of the trail is in a narrow canyon. Hikers will encounter a variety of plant species and wildlife and should stay clear of this area when flash flooding is possible.

Kaibab National Forest

Kaibab National Forest is managed by the USFS North Kaibab Ranger District. Recreational activities that are specific to the North Kaibab Ranger District include the following:

- Camping, backpacking and hiking
- Horseback riding
- Scenic driving
- Picnicking
- Cross-country skiing, snowmobiling and snowshoeing
- Mountain biking
- Wildlife, bird and plant viewing
- Big and small game hunting

Visitors of this forest district must comply with all USFS rules and regulations. Campfires are highly monitored and limited by the Kaibab National Forest, depending on current fire and environmental conditions.



Rest area at LeFevre Overlook

Access Point

The primary access routes to the North Kaibab Ranger District are through U.S. 89A and SR 67. SR 67 also provides access to the North Rim of the Grand Canyon.

Specific Areas of Interest

Jacob Lake Campground serves as the main campground for this forest district. This campground is open from May 15 through November 1. Facilities provided at the campground include unit sites, concessional services, parking spurs, access roads and an amphitheater. Visitors also can gather camping, recreational activity and mapping information from the

Kaibab Plateau Visitor Center. Jacob Lake Inn also provides a variety of visitor services.

Le Fevre Overlook is a designated area used by sightseers to experience a panoramic view of the Grand Staircase-Escalante National Monument. Built by the Civilian Conservation Corps, this trail leads to the structure from the LeFevre Overlook parking lot. It has restroom facilities and is a popular photo site.

Trails

Non-motorized and motorized trails are found in the Kaibab National Forest. The trails serve hikers, bikers, equestrians, cross-country skiers, four-wheel drivers and snowmobilers. Many miles of closed roads provide hiking, equestrian and mountain biking opportunities.

The following lists the primary trails and corresponding trail numbers and mile lengths:

- Arizona National Scenic Trail, #101, 50.5 miles
- East Rim Trail, #7, 1.5 miles
- Gooseneck Trail, #112, 5 miles
- Great Western Trail, #150, 30 miles
- Jump Up-Nail Trail, #8, 6 miles
- Lookout Canyon Trails, #120 (9 miles), 121 (2.5 miles), and 122 (1.25 miles)
- Nankoweap Trail, #57, 4 miles
- North Canyon Trail, #4, 7 miles
- Rainbow Rim Trail, #10, 18 miles
- Ranger Trail, #41, 16 miles
- Saddle Mountain Trail, #41, 5 miles
- Slide Canyon Trail, #31, 8 miles
- Snake Canyon Trail, #6, 21.5 miles
- Triple Alcoves Trail, #27, 5 miles
- Navajo Trail, #19, 12 miles

The North Kaibab Ranger District is open to travelers throughout the year. However, during the winter season local campgrounds are closed and have limited access due to snow and weather conditions. SR 67, which is primarily used to visit the North Rim of the Grand Canyon, is also closed from December through May 15. The summer season is the most popular season for visitors.

Campgrounds

The Kaibab National Forest offers a wide variety of lodging options to the visitor touring in the corridor. Accessible from U.S. Highway 89A are lodges, several private campgrounds and RV parks, USFS campgrounds and undesignated campgrounds, i.e. camping in the forest with no facilities.



Three historic lodges highlighted on a Vermilion Cliffs Highway Project interpretive sign

Jacob Lake area campgrounds open in early May and close in late October. USFS and NPS campgrounds have water and toilets, but no RV hook-ups. Private campgrounds at Jacob Lake or off the plateau do have full RV hook-ups, however. Tents and RVs are welcome at all campgrounds. Demotte Park is not suitable for large RVs. All other campgrounds can handle any size vehicle. Group campsites are available by reservation at Jacob Lake and the North Rim.

The Forest Service campgrounds operate on a first-come, first-served basis, and reservations can be made at the North Rim and private campgrounds. The free Jacob Lake picnic area is open May 1 to November 1 during daytime hours. No fee is charged for camping at Indian Hollow Campground. Camping is primitive, and no water is available.

On national forest lands, camping is not limited to campgrounds. Instead, camping is permissible at no charge off of any dirt road or out of the sight of a paved highway such as U.S. Highway 89A. Backcountry camping is prohibited within one-quarter mile of water to allow wildlife undisturbed access. Backcountry campers also must stay at least one-half mile from a developed campground or other facility. Campers are also asked to stay out of meadows, due to their fragile environment. For more details, see the national forest Web site at <http://www.fs.fed.us/r3/kai/>.

Arizona Strip Field Office BLM-Administered Lands

Arizona Strip Field Office BLM-administered lands outside the national monuments offer the following recreational activities:

- Camping, backpacking and hiking
- Horseback riding
- Scenic driving
- Picnicking
- Mountain biking
- Wildlife, bird and plant viewing
- Big and small game hunting
- Off-highway vehicle use on designated routes
- Open off-highway vehicle areas near Fredonia and St. George

Trails

Non-motorized and motorized trails are found in the BLM-administered public lands, including the Arizona National Scenic, Great Western and Honeymoon Trails. The trails serve hikers, bikers, equestrians, four-wheel drivers and snowmobilers. Many miles of closed roads provide hiking, equestrian and mountain biking opportunities.

Soap Creek Trailhead. The trailhead is reached from U.S. Highway 89A . At MP 548 turn southeast through a gate and drive one-half mile to trailhead. This is a primitive, challenging trail to the Colorado River and Soap Creek Rapids that is popular with day hikers and fishermen. There are no facilities. The trail leads for four miles through a wildly eroded corridor subject to flash floods. The Colorado River at Soap Creek holds about 7,000 to 8,000 trout, 12-inches or larger, per mile. There is a limit of six fish per day, and the AGFD encourages anglers here to harvest their catch to help cull the population.

Navajo Reservation

The Navajo Reservation portion of the corridor offers hiking, as well as big and small game hunting, which require permits. Find more details about permits at <http://navajonationparks.org/permits.htm>.

Trails

Non-motorized trails are found in the Navajo Reservation.

Jackass Canyon Trailhead. The trailhead to the Jackass Canyon Trail is located on the Navajo Reservation on the north side of Marble Canyon near MP 532 off of U.S. Highway 89A. A permit is required to hike this trail: for permits, visit <http://navajonationparks.org/permits.htm>. This is a slot canyon in the northern part of the Grand Canyon in Marble Canyon. It is one of the northernmost ways to access the Colorado River south of Lees Ferry. The trail is a primitive trail and is 5.5 miles round trip. It is not signed and access requires crossing barbed wire fences. It is popular with fishermen and day hikers who like slot canyons.

GOALS AND OBJECTIVES

The following goals and objectives were developed from comments received during public workshops and Citizen Advisory Committee (CAC) meetings, as well as outreach to all interested stakeholders. Contradictions may exist, but this is a “living document” that is intended to be a source of dialogue and coordinated planning and will be revised/append as required to meet stakeholders’ needs/desires.

GOAL: Increase roadway safety

OBJECTIVES:

- Widen travel lanes
 - No significant widening of travel lanes should occur between Forest Service 225 and BLM 1065, especially through Trail Canyon. Slow vehicle turnouts would be preferable to passing lanes throughout the entire length of U.S. Highway 89A.
 - There are several federally listed plants throughout/along the corridor, including within feet of the roadbed. These plants are among the highest priorities for the USFWS because of their limited distribution and sensitive nature. Any road widening should not impact these plants.
- Widen shoulders
- Enforce truck travel requirements
- Designate scenic pullouts and Forest Service and BLM roads before drivers reach them to decrease number of motorists stopping in the roadway
- Develop pullouts for large vehicles, such as RVs and school buses
- Install rumble strips on the entire length of the corridor; however, ADOT believes that rumble strips would deteriorate under the moisture received in winter.
- Passing lane going north from Fredonia (close gap in passing lanes)
- Install stoplight at SR 389/U.S. Highway 89A junction in Fredonia

- Complete unfinished roadway work on SR 389 in Fredonia
- Install passing lanes, turn lanes and shoulders
 - Slow vehicle turnouts might be preferable to passing lanes. However, ADOT believes that passing lanes could be a safer and more economical alternative to pull-outs.
- Improve SR 67/U.S. Highway 89A junction
 - Install better directional signage at Jacob Lake intersection
- Need guardrail at MP 591 on U.S. Highway 89A
- Lower speed limits
 - Moderate speed limit for lowland sections
 - 45 mph for the section of U.S. Highway 89A across the Kaibab Plateau
 - 35 mph in narrow, winding sections through Trail Canyon
- Remove dead trees near roadway that cause immediate danger; give trees to locals; otherwise, dead trees provide excellent habitat for wildlife, including the Mexican spotted owl, and should be left alone where possible.
- Stabilize banks (erosion due to fire) and return flow channel
- Pursue ADOT's Road Safety Assessment Program

Through this program, ADOT will assemble a team of evaluators to review the roadway, report on safety deficiencies and identify specific steps to improve safety. The program is independent from local ADOT districts, and evaluators are chosen from throughout the state to help ensure objectivity. The report developed by the evaluators could be used to lobby for funding of specific safety improvement projects along the corridor. The entity that owns (or maintains) the road will need to submit the request for a Road Safety Assessment. Since ADOT is that entity, it will have to come from that agency. The person at ADOT who is currently in charge of these assessments is:

Michael R. Blankenship, P.E.
 Arizona Road Safety Assessment Program Manager
 Arizona Dept. of Transportation, Consultant
 206 S. 17th Avenue, Mail Drop 065R
 Phoenix, AZ 85007-3217
 602-712-7601
 602-712-3243 (fax)
 mblankenship@azdot.gov

- Pursue grants from the Safe Rural Roads Program
- Develop visitor safety informative materials
- Consult USFWS and inform of specific proposed improvements to ensure species' protection
- Develop plan to keep animals off the road
- Work with DPS regarding emergency response
- Carefully consider the impact of any proposed roadway modifications to the corridor's intrinsic qualities. Any modifications should not only increase roadway safety but should also be designed to enhance the visitor's experience or, at the least, should not detract from the visitor's experience or the visitor's

appreciation of the corridor's intrinsic qualities.

GOAL: Increase limits of scenic road to include Fredonia and SR 389 to the Arizona border

- Contact ADOT to determine necessary steps to increase official state designation
- Possibly apply for national designation, depending on CAC and stakeholder desires, which can extend the scenic road limits regardless of the state designated limits

GOAL: Limit public access to sensitive areas

OBJECTIVES:

- Planning should include discussions with tribes and agencies regarding areas to limit and areas to promote
- Do not promote areas that are determined to be sensitive
- Concentrate development efforts on existing sites and activities with easy and safe access
- In general, care must be given as to where stiles and access gates are placed on BLM lands. At least one stile has been previously removed due to its location in Brady pincushion cactus habitat. New access points should not be placed where hikers and roadside parking will occur in listed plant habitat and occurrences.
- Any new viewing areas should not be planned where listed plants occur. If there are any viewing areas that currently occur in listed species habitat, it might be appropriate to reconsider their location or to provide better protection/barriers.

GOAL: Ensure/preserve scenic qualities of the corridor

OBJECTIVES:

- Careful placement of new signage in compliance with all applicable local, state, tribal or federal regulations.
- Do not allow any new billboards throughout the corridor
- The structures along the side of the road should be upgraded to make them more uniform with the view shed
- Develop plan for trash collection and vandalism prevention

GOAL: Increase ADA compliancy

OBJECTIVES:

- Improve ADA access where feasible on existing developments
- Lees Ferry parking area, boat docks and beaches
- Gate access to Lonely Dell Ranch
- Lodges: lodging rooms, restaurants
- Campgrounds
- Overlook areas
- Trails

- Include ADA access with all new developments

GOAL: Ensure a positive visitor experience

OBJECTIVES:

- Research visitor points of interest
- Determine viability for commercial entities
- Provide interpretive information regarding Native American cultures
- With assistance from tribes and archaeologists, prepare interpretive information related to each involved tribe's history and current culture in the corridor.
- The Navajo Nation Scenic Byways Program plans to pursue funding for interpretive projects on the Navajo Nation portion of the corridor.
- Provide on and off-road experiences.
- Travelers should keep vehicles on paved or dirt roads at all times, pulling off only for camping, wildlife viewing, etc.
- Increase bicycle accommodations along the corridor
- Future modifications of the highway should include wider (four-foot minimum) shoulders, judicious use of rumble strips (narrow, intermittent and located close to the white line), adequate maintenance of the shoulder and "Share the Road" signage
 - * There are several federally listed plants throughout/along the corridor, including within feet of the roadbed. These plants are among the highest priorities for the USFWS because of their limited distribution and sensitive nature. Any road widening likely will impact these plants.
- Place an attractive sign at the beginning and end and maybe the middle of the route: Vermilion Cliffs Scenic Byway - Take time to enjoy it (or another slogan to be developed). Any new signage efforts should be in compliance with all applicable local, state, tribal or federal regulations.
- Resurface entrance to Antelope Trail Vendors Organization (ATVO) site at Marble Canyon
- Move ATVO permanent structure back enough to allow room for tour buses at Marble Canyon site
- Limit noise pollution, such as large motorcycle groups; vehicles with altered or degraded exhaust systems; new or extended aircraft landing strips/facilities; and limited use of engine breaks on large trucks
- Improve access to Le Fevre Overlook
- Rehabilitate and upgrade Pipe Spring National Monument

GOAL: Respect and preserve the corridor's many cultures

OBJECTIVES:

- The Kaibab Paiute Band of Indians maintains cultural and spiritual ties to the Kaibab Plateau, as do the Navajo and Hopi tribes
- Avoid publicizing areas recognized as sensitive or sacred by tribes

- Tribal histories and cultures of the area should be recognized
- Develop information for visitors explaining what “sacred” means to the tribes
- New signage for the three vending areas on the route operated by the Antelope Trail Vendors Organization (ATVO)
- Include ATVO locations in brochures
- Put up some type of informational billboard or kiosk with some of the Navajo history at the Marble Canyon ATVO site
- Medicinal/religious activities: continue coordination between Forest Service and tribes per government-to-government legal agreements
- Need ethnographic inventory of entire corridor to include all tribes with interest in the area
- Develop tribal partnerships with other entities/communities

GOAL: Limit commercial use of the roadway

OBJECTIVES:

- Limit semi-truck use of the corridor
- Enforce log and weight regulations
- Coordinate efforts with Port of Entry, Department of Public Safety and others as applicable
- Limit commercial use of the roadway for service to the North Rim, Lees Ferry, Jacob Lake, Kaibab Lodge and the communities along House Rock Valley
- Contract with an institution of higher learning and produce a fuel consumption analysis comparing semi-truck fuel consumption along US 89 (Fredonia to Bitter Springs) with US 89A. This might prove useful for the carriers regarding selection of US 89 over US 89A.
- New pullouts should not lead to increase of roadside vendors
- Move Port of Entry to east of Fredonia
- Create no-passing zones

GOAL: Decide whether or not to pursue historic designation for the corridor along with the current scenic designation

OBJECTIVES:

- Consult with ADOT Scenic Roads/Navajo Nation on the criteria/benefits for designation as a historic road
- This decision should be made by a representative group such as the CAC, which will then need to prepare the application
- Once a decision has been made, contact ADOT Scenic Roads for guidance on developing the application
- New and existing developments should comply with Section 106 of NHPA

GOAL: Keep pullout areas clean

OBJECTIVES:

- Part of the contract with the Antelope Trail Vendors Organization to set up stands at the LeFevre and House Rock Valley Overlooks includes trash collection
- Set up volunteer trash collection groups as necessary

GOAL: Maintain healthy, diverse and connected populations of wildlife in the corridor

OBJECTIVES:

- Consider safety of motorists and wildlife connectivity issues simultaneously. With increased traffic comes the increased potential for wildlife strikes. By proactively planning for wildlife connectivity in the face of increased travel in this area, we can reduce wildlife strikes and maintain or enhance movement corridors for wildlife.
- Consider wildlife crossing structures and appropriate funnel fencing for species such as mule deer, pronghorn, mesocarnivores (foxes, skunks), small mammals, reptiles and amphibians.
- Enhance and create antelope crossings
- Fence modification for antelope area; raise distance between ground and lowest wire; antelope can crawl under the fence
- Condors and road kill: need tourist education not to interfere
- Protection of wildlife (slower speeds and wildlife crossing areas) should be a high priority
- Wildlife mortality needs better documentation and should include all species
- Install fencing where appropriate. ADOT is doing a project assessment regarding fencing on U.S. Highway 89A to determine if this goal is contrary to the goal of connectivity. ADOT and AGFD need to work together on this issue. Fences on BLM lands are in place for active grazing allotments, to signify wilderness boundaries or to prevent illegal cross-country travel.
- Protect federally listed plants throughout/along the corridor.

GOAL: Maintain communication between all federal and state wildlife and land management agencies

OBJECTIVES:

- Ensure proper communications and coordination with USFWS, BLM, USFS and AGFD to evaluate all projects and management decisions being considered for their potential to impact federal and state listed and sensitive wildlife and plants and their habitats.

GOAL: Maintain coordination between all agencies and interested stakeholders on all major decisions regarding the corridor

OBJECTIVES:

- Ensure proper communications and coordination with all agencies and stakeholders identified in this CMP and other interested parties to evaluate all projects and management decisions as they are considered and implemented.
- All agencies and stakeholders identified in this CMP and any other interested parties should continue

acting as the CAC, beginning by establishing a timeline, a matrix of responsibilities and a mechanism for enforcement and review for the purpose of implementing the CMP.

MAINTAINING AND ENHANCING THE CORRIDOR'S INTRINSIC QUALITIES

In general, Citizen Advisory Committee (CAC) members and other stakeholders prefer to improve and upgrade existing facilities rather than develop new facilities to preserve as much of the view shed as possible and to create a uniform, cohesive experience for scenic road travelers. Following are some specific suggestions for maintaining and enhancing the corridor's intrinsic qualities:

- Develop interpretive materials (see Interpreting the Scenic Byway on page 83) to highlight the significance of intrinsic qualities. Interpretative and other signage should be in keeping with the scenic qualities of the area.
- Virtually all stakeholders agree that sensitive sites (cultural sites, wildlife, etc.) need to be protected. If they are not protected, they should not be publicized. Corridor stakeholders have identified a number of sensitive sites that should not be publicized. The CAC should continue working with all corridor stakeholders to ensure sensitive sites are either protected or unpublicized.
- Coordination between all corridor stakeholders is essential to maintaining and enhancing the corridor's intrinsic qualities. All stakeholders are encouraged to maintain communication and cooperation efforts. The CAC is encouraged to actively help with this ongoing process. Specific suggestions appear in Ongoing Public Participation on page 85.
- The CAC should develop a specific plan for maintaining and enhancing each intrinsic quality identified in this document. Preferably, no improvements or upgrades should happen at any existing facility until a plan has been developed and agreed to by stakeholders.
- Selected goals and objectives related to maintaining and enhancing the corridor's intrinsic qualities are listed on pages 80-84.

GOAL: Limit public access to sensitive areas

OBJECTIVES:

- Planning should include discussions with tribes and agencies regarding areas to limit and areas to promote
- Do not promote areas that are determined to be too sensitive
- Concentrate development efforts on existing sites and activities with easy and safe access
- Consider barrier near protected plants
- Develop a protection and restoration program

GOAL: Ensure/preserve scenic qualities of the corridor

OBJECTIVES:

- Careful placement of new signage, including potential Trailblazer signs

- Do not allow any new billboards throughout the corridor
- The structures along the side of the road should be upgraded to make them more uniform with the view shed

GOAL: Increase ADA compliancy

OBJECTIVES:

- Improve ADA access where feasible on existing developments
- Include ADA access with all new developments

GOAL: Ensure a positive visitor experience

OBJECTIVES:

- Provide interpretive information regarding Native American cultures
- With assistance from tribes and archaeologists, prepare interpretive information related to each involved tribe's history and current culture in the corridor.
- Limit noise pollution, such as large motorcycle groups
- Improve access to Le Fevre Overlook
- Rehabilitate and upgrade Pipe Springs National Monument

GOAL: Respect and preserve the corridor's many cultures

OBJECTIVES:

- Avoid publicizing areas recognized as sensitive or sacred by tribes
- Tribal histories and cultures of the area should be recognized
- Develop information for visitors explaining what "sacred" means to the tribes
- Put up some type of informational billboard or kiosk with some of the Navajo history at the Marble Canyon ATVO site
- Need ethnographic inventory of entire corridor to include all tribes with interest in the area

GOAL: Decide whether or not to pursue historic designation for the corridor along with the current scenic designation

OBJECTIVES:

- New and existing developments should comply with Section 106 of NHPA

GOAL: Keep pullout areas clean

OBJECTIVES:

- Set up volunteer trash collection groups as necessary

GOAL: Maintain healthy, diverse and connected populations of wildlife in the corridor.

OBJECTIVES:

- Consider safety of motorists and wildlife connectivity issues simultaneously
- Consider wildlife crossing structures and appropriate funnel fencing
- Preserve pronghorn crossing
- Fence modification for pronghorn area
- Condors and road kill: need tourist education not to interfere
- Protection of wildlife (slower speeds and wildlife crossing areas) should be a high priority
- Wildlife mortality needs better documentation and should include all species
- Install fencing where appropriate. ADOT is doing a project assessment regarding fencing on U.S. Highway 89A to determine if this goal is contrary to the goal of connectivity. ADOT and AGFD need to work together on this issue. Fences on BLM lands are in place for active grazing allotments, to signify wilderness boundaries or to prevent illegal cross-country travel.
- Protect federally listed plants throughout/along the corridor.

GOAL: Develop measures to further protect species/habitat and rehabilitate damaged habitat.

OBJECTIVES:

- Place barriers to prevent access (vehicle and foot) to sensitive areas
- Rehabilitate habitat that has been altered or degraded to allow it to regenerate back to its natural state.

INTERPRETING THE SCENIC BYWAY

Prior to implementing any new interpretive projects or changing existing interpretive displays, a corridor-wide interpretive plan should be developed to ensure a cohesive, uniform interpretive strategy. The CAC is encouraged to apply to FHWA Scenic Byways for a grant to develop the interpretive plan. Following are interpretive guidelines and suggestions already identified by byway stakeholders:

General signage guidelines

- The area has a very interesting prehistory and history that lends itself to public interpretation. There are great interpretive opportunities from both a cultural and natural perspective. However, interpretation should be in keeping with the scenic qualities of the area.
- Regional branding goal; make relevance to scenic road clear
- Need uniform, cohesive interpretive signage

Suggested locations for interpretive signage

- Educational signage at Honeymoon Trail to make more meaningful to public

- Use existing pullouts for signage
- Wayside exhibit at LeFevre and House Rock Valley Overlook areas; improve existing signage
- Chain-up areas would be a good spot for interpretive signage
 - * Kaibab National Forest is willing to use existing kiosks at chain-up areas on either side of Kaibab Plateau as interpretive centers; also fine with removing the kiosks
- Interpretive sign at junction of road to Condor Viewing Site (located at eastern base of Kaibab Plateau; chain-up area junction is private property)

Other signage suggestions

- Make Lees Ferry sign larger
- Gateway signs
- Install a sign at Navajo Bridge both entering and leaving the Navajo Nation
- New signs written in German and Japanese
- Hiking trail signs
- Need better signage at Fredonia Welcome Center
- Any new signage efforts should be in compliance with existing local, state, tribal or federal laws regarding the use of outdoor advertising
- Ensure the number and placement of signs are supportive of the visitor's experience
- Work with applicable jurisdictions to develop best locations for any new signage

Other interpretive opportunities

- SR 67, which connects with U.S. Highway 89A at Jacob Lake, is a state-designated Parkway. The Forest Service hopes to develop an interpretive plan that could possibly tie into the U.S. Highway 89A corridor.
- Provide scenic road information at Fredonia Welcome Center
- Re-do kiosk panels throughout corridor (Vermilion Cliffs Highway Project: signage exists along the highway now; was an ADOT-supported project facilitated by the BLM)
- Develop historic overview of entire corridor, perhaps a Historical Guide to the area
- Interpretive map of corridor
- Visitor guides highlighting and interpreting intrinsic qualities of the corridor in multiple formats (print, audio, video, Web site, etc.)
- Educational materials that could be used in schools
- Quarterly, biannual or annual calendars of cultural events throughout the corridor
- Brief biographies of influential historic persons, compiled into one brochure
- Compile tribal interpretations of landscape features into an interpretive scenic brochure
- Interpretive brochures for selected trails
- The Navajo Nation Scenic Byways Program wants to move forward with interpretive plans for the section of roadway in the Navajo Nation and is interested in coordinating with other interpretive plans.
- Efforts to generate more interpretive signage should take into consideration/integrate the signage already in place; also plans would need to be completed and funding located

MARKETING THE BYWAY

Prior to implementing any marketing efforts, a corridor-wide marketing plan should be developed to ensure a cohesive, uniform marketing strategy. The CAC is encouraged to apply to FHWA Scenic Byways for a grant to develop the marketing plan. The marketing plan should incorporate the following (and coordinate with the interpretive plan and other byway efforts):

- Identity enhancement and branding
- A method for evaluating tourist experiences
- A system to track where tourists get their information regarding the scenic road corridor and individual intrinsic qualities

However, comments from CAC members and other stakeholders have indicated that there is not much desire to increase the number of visitors to the corridor. The CAC is encouraged to continue this discussion with corridor stakeholders and come to a consensus regarding marketing the byway to attract new visitors. Marketing efforts should be in accordance with the wishes of corridor stakeholders.

General Marketing Suggestions

- Develop an overview brochure of the scenic road and make the brochure available at regional tourist information outlets. If the goal is not to increase visitors, make the brochure available only throughout immediate vicinity.
- Local marketing efforts may be included in Ongoing Public Participation on page ##, such as:
 - Invite the public to all CAC meetings.
 - Encourage CAC members to educate their peers, co-workers and community members about the scenic byway, its intrinsic qualities and CAC activities.
 - Include public participation and outreach with all scenic byway projects.
 - Develop educational campaigns focused on all or some of the byway's intrinsic qualities.
 - Hold annual public events focused on enjoying the corridor's intrinsic qualities and/or celebrating significant accomplishments along the byway.
- Other marketing possibilities:
 - Create partnerships: businesses, chambers of commerce and public agencies should be encouraged to promote each other to a reasonable extent by providing information to the public about each others' services and activities.
 - Media relations: maintain contacts with regional media and tourist information outlets. Provide updates to media on all scenic byway efforts and developments. Conduct campaigns with media focused on individual intrinsic qualities or one category of intrinsic qualities, such as a series of articles on historic qualities of the corridor.
 - Web site: develop a web site that highlights the corridor's intrinsic qualities and provides interpretive information. Encourage corridor stakeholders with web sites to include a link to the

byway web site. Contact other tourist-related web sites and request that they also include a link to the byway web site. Keep Web site current with updated information.

ONGOING PUBLIC PARTICIPATION

The FHWA Scenic Byways Program emphasizes grassroots involvement with all scenic byway activities. This helps to ensure public acceptance of stakeholder-driven projects and encourages partnerships and cooperation among byway stakeholders. Public participation not only helps build momentum for byway projects, but also encourages a sense of local pride and stewardship of the corridor's intrinsic qualities.

During initial public meetings and workshops, a call for volunteers to serve on a CAC was made. Anyone was welcome to participate. The existing CAC is strongly encouraged to continue meeting on a quarterly or biannual basis to 1) monitor developments along the corridor and work with developers to incorporate CMP goals into developments; 2) work with business owners and other stakeholders to implement CMP goals at existing developments; 3) pursue funding for new byway projects as identified in the CMP; and 4) conduct regular community programs and outreach to increase awareness of the scenic byway and its significance and to encourage public participation with the CAC; and 5) to seek additional members for the CAC to replace volunteers who need to step down.

The CAC also is encouraged to participate with other regional groups and activities to develop partnerships and encourage stewardship of the scenic byway's intrinsic qualities.

Following are some suggested possible activities for the CAC to pursue, specifically regarding ongoing public participation:

- Invite the public to all CAC meetings. Develop a stakeholder database to send announcements to. Place meeting dates on web site calendars, free newspaper listings and as public service announcements with regional radio stations. Make an extra effort to invite public participation once a year, including posting fliers throughout the corridor, inviting regional public officials and media, attending regularly scheduled meetings (agency meetings, community meetings, etc.) to make announcements and extend invitations to get involved, and any other possible avenues of outreach. Note that in rural areas, including the entire length of the corridor, face-to-face interactions tend to be most successful in getting the word out.
- Hold the CAC meetings at different locations throughout the corridor. Consider holding some CAC meetings in neighboring regions, such as Page, Tuba City, Flagstaff, Kanab and St. George.
- Encourage CAC members to educate their peers, co-workers and community members about the scenic byway, its intrinsic qualities and CAC activities. The CAC is currently comprised of representatives from many diverse stakeholder groups including local residents and business owners of several different communities along the byway, three distinct tribes and numerous local, county, state and federal agencies. CAC members should regularly update their respective stakeholder groups on byway activities and opportunities for public participation.
- Identify stakeholder groups not represented in the CAC and extend personal invitations to become involved.

- Include public participation and outreach with all scenic byway projects. Gain public input on any proposed byway projects and make public announcements any time a project is funded or completed. Encourage media coverage of byway projects and activities.
- Develop educational campaigns focused on all or some of the byway's intrinsic qualities. Make presentations at CAC meetings, other regularly scheduled meetings (agency, community, etc.) and in regional schools. Invite regional community members and schools to attend guided field trips.
- Hold annual public events focused on enjoying the corridor's intrinsic qualities and/or celebrating significant accomplishments along the byway. Publicly recognize individuals and groups for their contributions to preserving and enhancing the corridor's intrinsic qualities. Celebrate and nurture partnerships created through scenic byway activities.
- Approximately every five years, make an extensive effort to invite the public to help the CAC review and revise, as necessary, the CMP. Pay particular attention to stakeholder groups that may not have been involved in earlier efforts or whose views have not been incorporated into the byway goals as reflected in the CMP.
- Groups that should be part of the ongoing effort:
 - Antelope Trails Vendor Association
 - Antelope Trails Vendor Association
 - Arizona Department of Transportation
 - Arizona Game and Fish
 - Arizona Department of Public Safety/Arizona Highway Patrol
 - Arizona Strip Interpretive Association
 - Bureau of Land Management, Arizona Strip District
 - Business owners
 - Coconino County
 - Grand Canyon Trust
 - Glen Canyon Natural History Association
 - Kaibab National Forest
 - Kaibab-Vermilion Cliffs Heritage Alliance
 - National Park Service: Glen Canyon National Recreation Area, Pipe Spring National Monument and Grand Canyon National Park
 - Sierra Club
 - Town of Fredonia
 - Tribal interests – Navajo, Hopi, Kaibab Paiute
 - U.S. Fish and Wildlife
 - Vermilion Cliffs National Monument

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APPENDIX A



APPENDIX A: VISITOR SAFETY INFORMATION

(contributed by BLM, Vermilion Cliffs National Monument)

Long stretches of road do not have services. Road hazards may include heavy 18-wheeler traffic, strong winds, long stretches of open road and the potential for deep snows and icy road conditions, especially on the east side of the Kaibab Plateau. Exploring the area off the Vermilion Cliffs Scenic Highway can be fascinating but dangerous to a novice. Hazards, with very little advance signage, include deep sands, drainages and livestock. Travelers who wish to explore the backcountry should have the necessary survival skills.

At times, the roads may be accessible to two-wheel drive vehicles with good ground clearance. However, four-wheel drive is recommended and is required after heavy rains. Always respect the law and help preserve the land by staying on designated roads. Off-road travel by any vehicles, including mountain bikes, is prohibited. On BLM-managed lands, closed gates do not prevent access, but gates should be replaced as they were found – either open or closed. Those gates that are marked “private property” or “administrative use only” prevent access.

By taking some time to explore this vast landscape, travelers will find cryptobiotic soil crusts, lush hanging gardens and traces of dinosaurs that roamed this area millions of years ago during the Mesozoic Era. A few basic safety preparations will help people protect themselves and the environment from mishap.

There are historic signs of human activity, which can create safety issues within the scenic byway corridor. These include remnants of overgrown roadways and abandoned dwellings. There are also abandoned mines, which were developed at various times, including uranium, silver and petrified wood. There are open mining shafts that create falling hazards and exposure to potentially dangerous hazards, such as rodent and bat waste, snakes and various levels of radiation. Collection of objects in all areas is prohibited. Visitors should leave everything as they find it, including rocks, plants and even old trash, which may have historic/cultural/archaeological significance. Collecting of any object, be it natural or historical (more than 50 years old) is prohibited on any federal lands – BLM, Forest Service, Park Service, etc. This includes taking rocks, flowers, old cans, bones, seeds, wire, etc. Report signs of vandalism to public land managers.

The structures and rock art are old and fragile. Please do not sit, lean or stand on walls. Do not enter buildings or structures found while exploring the area. Do not touch or deface rock art or carve graffiti. Oils from human hands increase erosion of rock art, destroying it for future generations.

As visitors explore the desert of the Colorado Plateau, they may notice a bumpy or spongy crust covering the floor. Cryptobiotic soil crusts are an important part of arid and semi-arid ecosystems throughout the world, including those in Glen Canyon National Recreation Area.

These soil crusts are formed by very small organisms and their by-products, which create a crust of soil particles held together by organic materials. It is becoming increasingly clear that the older and better developed crusts support important levels of cryptogammic plant biodiversity. Watch your step: cryptobiotic soil crusts are fragile. Once compacted, cryptobiotic soils can take anywhere from a few years to several decades or longer to recover. Research suggests that recovery of some of the algal and lichen components may take much longer, and could take several hundred years in very dry environments. Tires and foot traffic by humans and livestock can break through the crust, increasing the risk of soil erosion and nutrient loss. The human imprint on this environment has increased through time due to the cumulative impacts of mining, grazing and visitation.

Public lands offer the visitor a broad range of opportunities for outdoor activities, including camping, hiking, hunting, fishing and whitewater boating. While hiring a guide is not required, it is an option. The following general and activity-specific safety reminders will help ensure that your visit is a safe and enjoyable one.

General Safety Reminders

- ***Leave a trip schedule*** to let someone know where you are going, when you will be back, the names of any companions and vehicle information (color, model, license number). If you make an unexpected stop, leave a note describing where you are going and when you will be back, tucked inside your vehicle to be accessed by emergency personnel.
- ***Observe and photograph all wildlife from a distance.*** For the safety of yourself and the animal, please do not approach, feed or harass wildlife. Do not approach or feed condors.
- ***Check the weather forecast*** for your destination so you can dress appropriately, bring the proper equipment and plan for driving conditions.
- ***Dress appropriately*** to protect against hypothermia or heat stroke. Hats can save body heat in the winter and protect you from the sun in hot weather. Layer your clothing to allow flexibility for changing weather conditions, hot or cold.
- ***Bring the proper equipment*** if you will be away from your vehicle for any length of time.
- ***Maps are available from your local visitor centers, BLM, NPS and USFS offices.*** Standard equipment should include plenty of water for two days, a detailed map of the area, compass, sunscreen and gasoline.
- ***Cell phone coverage is minimal to none.***

- **Emergency equipment** should include waterproof matches, flashlight, first aid kit, knife, extra food and water, and a light plastic tarp for shelter.
- **If you are on medication, take along an adequate supply.** Let any companions know about your condition. If you are allergic to bees, do not forget your bee sting kit.
- **Do not drink unfiltered water from streams, springs or wildlife catchments** as it may contain the *Giardia* microorganism. *Giardia* causes nausea, headaches and diarrhea. Water can be purified by boiling for 15 minutes, or using filters or tablets.
- **Know the road conditions** since you will be traveling on a number of unimproved roads, trails or backcountry byways. Be aware that you may need specially equipped vehicles, such as 4 X 4s and the experience to drive them, to gain access to some areas. Be alert to the weather, which can rapidly change road conditions. Contact your local BLM/USFS office for up-to-date road information.
- **Flood Hazards.** You may be traveling in areas that have a high potential for flash floods once you leave U.S. Highway 89A to explore the surrounding areas. Many of the roads repeatedly cross dry creek channels that can carry a flash flood. Know your weather and road conditions before you leave the pavement. If rains are imminent, be aware of flooding on the roadways. Flash floods can occur even if local weather is dry. If there is any water in the creekbeds, evaluate the situation before you try to cross the creek bed. If in doubt, stay out.

Your Safety is Your Responsibility!

Heat-Related Illnesses

Heat-related illnesses, such as heat exhaustion and heat stroke, result from prolonged exposure to excessive heat. The body becomes overheated and cannot eliminate the excess heat. Heat stroke is an extremely serious condition that can be fatal or cause permanent damage. It is a medical emergency. The best way to avoid heat exhaustion and heat stroke is to pay attention to the following prevention tips.

Prevention of heat exhaustion and heat stroke

- Acclimatize. Get used to hot weather in small increments.
- Take frequent breaks in shaded areas.
- Drink plenty of water continuously. Stay well hydrated!
- Don't drink alcohol or drinks containing caffeine. They can speed up dehydration.
- Eat. Food replaces electrolyte losses.
- Keep your head cool. Wear a hat or get wet.

Symptoms of heat exhaustion

- Rapid, weak pulse
- Heavy sweating, pale skin
- Dizziness, nausea, chills
- Headache, vomiting, feeling light-headed

Symptoms of heat stroke

- Elevated body temperature
- Rapid, strong pulse
- Red, hot, dry skin
- Nausea, dizziness, throbbing headache
- Unconsciousness

What to do for heat exhaustion

- Stop activity or exercise.
- Move out of heat to cool or shaded place.
- Rest. Lie down with feet raised and clothing loosened.
- Rehydrate. Replace electrolytes.
- Cool bare skin with water, damp towel, or shower if possible.

What to do for heat stroke

- Move victim out of heat.
- Wet victim continuously with cool water. Do not apply ice!
- Seek medical attention immediately!

Hypothermia

Hypothermia is caused by a lowering of internal body temperature in cold weather or exposure to cold water. The cold overwhelms the body's ability to produce and retain heat.

Prevention of Hypothermia

- Be aware of changing weather conditions. Find warm shelter if necessary.
- Be prepared. Wear layered clothing and be sure to cover your head.

Symptoms of Hypothermia

- Shivering
- Cold, pale skin
- Slurred speech, loss of coordination
- Fatigue, lethargy, apathy

What to do for hypothermia

- Get dry! Replace wet items with a warm, dry covering.
- Cover head and insulate victim from cold ground.

- Warm victim immediately, but gently and slowly. No aggressive re-warming.
- Apply heat packs to neck, chest wall and groin.
- Do not give victim alcohol!
- Seek medical attention if a facility is readily accessible.

Hyponatremia

Hyponatremia, is a condition in which your blood level of sodium is abnormally low. Sodium, an electrolyte, helps regulate water levels in the fluid in and around your cells. In hyponatremia, one or more factors — ranging from an underlying medical condition to excessive water intake during endurance sports — cause sodium levels to drop. When this happens, your body's water levels rise and your cells begin to swell. This swelling can cause many health problems, from mild to severe.

Symptoms of Hyponatremia

- Nausea and vomiting
- Headache
- Confusion
- Lethargy
- Fatigue
- Appetite loss
- Restlessness and irritability
- Muscle weakness, spasms or cramps
- Seizures
- Decreased consciousness or coma

What to do for Hyponatremia

- Educate yourself. If you have a medical condition that increases your risk of hyponatremia or you take diuretic medications, be aware of the signs and symptoms of low blood sodium.
- Take precautions during high-intensity activities. Drink only as much fluid as you lose due to sweating, usually no more than about 34 ounces (about one liter) of water an hour during extended exercise.
- Consider drinking sports beverages during demanding activities.
- Drink water in moderation. Drinking water is vital for your health, so make sure you have a sufficient daily intake of fluids. But don't overdo it.

APPENDIX B





APPENDIX B: PUBLIC INVOLVEMENT INFORMATION

1. Field Review Report
2. Public Meeting Outreach
 - a. News Release
 - b. Flier & Flier Delivery Report
 - c. Newspaper ads
 - d. Radio ad
 - e. Newspaper articles
3. Public Comment Report
4. Citizen Advisory Committee
 - a. Volunteer CAC Members (from public meeting sign-up list)
 - b. CAC Meeting Notes: Dec. 3, 2008
 - c. CAC Meeting Notes: March 4, 2009
 - d. CAC Meeting Notes: July 9, 2009
 - e. CAC Meeting Notes: TBD (final meeting)
5. Stakeholder Meetings (held by stakeholder request)
6. CMP Contributors and Review Participants



APPENDIX B

Public Involvement Information

Section 1

Field Review Report

Public Involvement Information
Fredonia-Vermilion Cliffs Scenic Road CMP



Fredonia to Vermilion Cliffs Scenic Road Corridor Management Plan Stakeholder Meetings and Field Review - July 21 to July 23, 2008

The Fredonia to Vermilion Cliffs Scenic Road CMP team conducted a field review of the corridor and met with agency stakeholders and some businesses from Monday, July 21 to Wednesday, July 23, 2008. The primary purpose of the stakeholder meetings was to introduce the project to stakeholders, to collect preliminary information regarding the stakeholders' wishes and worries about the corridor and to obtain contact information to begin building the stakeholder database. The CMP team also drove the entire corridor to get a first hand sense of the route and to begin documenting and photographing sites of interest to the CMP.

Team members who participated in the Field Review included the following:

- Susan Springer, Intrinsic
- Jason Hurd, Intrinsic
- Kathleen Tucker, AZTEC Engineering
- Patricia Hunter, Corral Dybas Group

Following are notes from each of the stakeholder meetings:

Carl Taylor, Coconino County District 1 Supervisor, and Rose Houk, with Vermilion Cliffs Heritage Alliance

Wishes and Worries

No shoulder, dangerous, primary route for semi trucks

- High speed trucks
- Trucks routed with GPS, which doesn't take into account topography
- Trucks slow going uphill which causes faster traffic to take risks in passing, i.e. on curves
- ADOT – vehicle counts do not support making improvements

Increase Tourism

- Lots of foreign visitors
- Historical/cultural ties to Utah stronger than to Arizona
- Protection/education
- 89A is one of two routes used to access the North Rim of the Grand Canyon
- Increase sense of importance for the area

Safety

- Accident prone
- No room for bicycles

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- Extend culverts and widen shoulders
- Make the route off-limits to semi trucks

Trucks can avoid POE on 89A at north end of Fredonia by taking Rosy Canyon Rd (north of Kanab) to AZ SR 389, so there are oversize/illegal loads on 89A

- Rosy Canyon
- Move POE to east of Fredonia

Due to growth in Hurricane and St. George area, traffic on 89A has increased in last 5-10 years

- NAFTA impetus behind truck traffic
- Traffic studies needed; County won't touch state/federal roads

Utah designated a portion of US 89 near Kanab, and many locals see the effort as not having been worth it

Points of Interest

Condors

Lees Ferry

- Lees Ferry Interpretive Center
- A lot of river runner traffic on 89A

Cabin near Jacobs's pools was owned by one of Lee's (of Lee's Ferry) many wives

Dominguez Escalante Trail

Honeymoon trail to Little Colorado River

- Arizona strip Mormon couples traveled from Holbrook area to get married at the temple in St. George
- Need educational signage to make more meaningful to public
- Honeymoon Trail is also a Hopi-Paiute trail

Inscription Rock (side trip)

- Mormon pioneers carved their names on the rock

Prehistoric Sites

Archeological sites

- Doug McFadden, archeological consultant based in Kanab, works on the Paria Plateau (top of Vermilion Cliffs National Monument)

Historically, the area has been a major Junction between cultures (Kaibab, Hopi, Navajo, Mormon pioneers)

Condors at Navajo Bridge (http://www.azgfd.gov/w_c/california_condor.shtml)

Buckskin Gulch

Coyote Cliffs

Kane Ranch

- Grand Canyon Trust purchase
- 860,000 acres grazing leases on public land
- Encompasses most of the eastern Arizona Strip
- Major focus of Kaibab-Vermilion Cliffs Heritage Alliance
 - o Alliance helps with BLM mission; also works with the Forest Service
 - o Does a lot of archeological work
 - o Quarterly meeting in Flagstaff 9/3

Arizona Strip is nearly 4 million acres

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House Rock

- House Rock Valley Rd. (from 89 north of Page to 89A)

Kanab Creek and Snake Gulch – interpretive place

Hopi-Paiute connections – Hopi-Kaibab Trail

- Paiute tribe gathered plants on plateau; ancestral land

Honeymoon Trail is also a Hopi-Paiute trail

Pipe Springs

Farming/ranching

“National Heritage Area”

Bean Hole Ranch, House Rock valley

National monuments

Uranium mining (off site)

Snake Gulch – should be a national monument

Other Contacts

Vermilion Cliffs BLM

Grand Canyon NP

Kaibab NF

- USFS has facility at Jacob Lake capable of holding 40-50 people for meeting

Maggie Sacher – owner of Vermilion Cliffs Inn and described as de facto leader of

Marble Canyon area

Brent Mackelprang - guardian of historic ranch community

Rich Family – own ranches in House Rock Valley and Jacob Lake Lodge

- House Rock
- Doing family history

Tom Corrigan – Fredonia Town Mayor

Glen Canyon Field Institute (art)

Hatch Family and Hatch River Expeditions

Rick Moore Grand Canyon Trust/Ethan Aumack

CREDA – Canyon Region Economic Development Association (came unraveled over uranium mining issues)

Leigh Kuwanwisiwma – Hopi Cultural Preservation Officer

Arizona game and Fish Department

Liz Schupert with Kaibab National Forest

Wishes and Worries

Jacob Lake intersection - need better directional signage

Fire in the last few years caused erosion and flooding in drainages that overtop roadway

- Stabilize banks
- Add cmp to return flow channel

Lefevre Overlook – toilet is closed but people use woods

- Would like a wayside exhibit
- High maintenance
- Eyesore, vandalism

Kiosks are not maintained – remove?

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House Rock signage needs improvements
No uniform interpretive signage
– Regional branding goal; make relevance clear

Points of interest

AZ Trail Trailhead
AGFD wildlife management area – bison, mule deer and apache trout
Geologic interpretation of House Rock which is a fault line
AZ Strip National Heritage area (AZ, UT, CO, NM)
Campground at Jacob Lake under construction (subsequently completed)
Pioneer Day July 24 – entrance into Salt Lake Valley

Other Contacts/getting the word out

Word of mouth
NF visitor center; N. Rim Country Store/Kaibab Lodge
Jacob Lake Inn
Flyers
Churches
Chapter houses
Visitor centers
Southern Utah news
Advertise in Page, Kanab and St. George newspapers
AZGFD – hunters, permitted guides
Bicycle tours
Grand Canyon Trust Institute
Grand Circle Field School
Page and Kanab Chambers of Commerce and civic groups
New owners of Wood Mill in Fredonia – Southwest Forest Industries/Products
Combine meeting with Travel Management Plan with FS
Peregrine Fund
Grand Canyon Trail Ride
Grand Canyon Association Field School
Arizona Highways Magazine makes photo trips to the area
Limited cell phone coverage and internet access

John Harper, Walter Link, Chuck Howe and Audra Merrick, with ADOT Flagstaff District

Wishes and Worries

Roadway is 22 feet wide; no shoulder
Need box culvert extensions
Need passing lanes
Non-standard geometry
Flooding of roadway at Trail Canyon crossing (Warm Fire 2 yr ago) and two areas in House Rock Valley
No R/W fence in many areas; cattle and wildlife on the road – there is a Project Assessment on the fencing

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T&E species – cactus, condor, etc.

How will this integrate with the Framework study?

- Still working on it for another year; need to check with James Zumpf on progress so we can answer that question if it comes up at public meeting

Some of the pavement is very old; need to repave road

View degradation due to Warm Fire

Approx. 700 ADT; the only thing to change on the route in the past 20 years is the increase in semi truck traffic; most winter accidents are trucks sliding off the road

There are lots of bicycle tours out of Fredonia

Points of interest

Hack Site – wilderness area

Other Contacts/getting the word out

Tom Kliwer, Page area ADOT Maintenance Supervisor – 928-645-9788

Stephen Mackelprang, Fredonia area ADOT Maintenance Supervisor – 928-643-7380

Public meeting places house rock-marble canyon, Fredonia

AZGFD – Andie Rogers, she is habitat biologist

Rafting companies in Flagstaff and Fredonia

Tony Joe, Navajo Division of Natural Resources - 928-871-6592/6593

Effie Yazzie, Director of Navajo Parks and Recreation – 928-871-6647

Maggie Sacher

Peregrine Fund

Marble Canyon Lodge has conference rooms; suggest Marble Canyon and Fredonia for meeting locations

Audra Merrick, primary ADOT Flagstaff District contact – 928-779-7596

Chuck Howe, ADOT, Flagstaff District Environmental Coordinator – 928-779-5905

Walter (Kent) Link, ADOT Northern Region Traffic Engineer – 928-779-7570

Maggie Sacher, Owner, Lees Ferry Lodge

Wishes and Worries

Safety of roadway

- Over design, width, and use by semi trucks
- Excessive truck speed
- Weight of trucks as drivers brag about being overweight and avoiding the weight scale at Fredonia POE
- Vehicles passing trucks
- No place for bicycles
- Lots of Walmart and Swift trucks. Unable to locate company contact to complain about Swift trucks
- Wants to ban big trucks from road
- Complained about trucks and road safety to several agencies
- ADOT improvements increased danger of roadway; the turn lane in front of the Vermilion Cliffs Lodge is used as a passing lane

Noise of jake brakes echoing off cliffs

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Economic issue

- Trucks don't stop; no fuel
- Increase in bicycle use would mean more business to her
- Kanab wants the semi truck traffic; Kanab wants to increase US 89 to four lanes

Gateway Signs

Vermilion Cliffs Highway Project – signage exists along the highway now; was an ADOT supported project facilitated by the BLM

Maggie would like to see another CMP as an example

Other Contacts/getting the word out

CREDA's infrastructure is still in place; look at their roster for contacts

Won't get one end of the route to attend a meeting on other end; recommends two meetings for each round

Does not expect much public involvement; most local workers come and go frequently; only about 6 full-timers; 2-3 people showing up to a public meeting would be considered a good turnout for the Marble Canyon area and 4 for Fredonia

New County Supervisor will be elected this year for the west half of route

Nancy McClain – State representative in Bullhead City

DPS, 928-645-2122

Steve or Sarah Hatch (live behind Cliff Dwellers Lodge)

Paul Campbell

County Sheriff

Bicycle group rides from Kanab to North Rim

Arizona River Rafters – based in Flagstaff and puts in at Lee's Ferry

Western River Expeditions based in Kanab

Shamrock Foods provides local deliveries

Tour West River Company based in Fredonia

Dale Kissner and Robin Tellis, Grand Canyon National Park

Wishes and Worries

Dangerous road; not wide enough

67/89A intersection confusing

- Trucks use access road in front of Jacobs Lake Lodge for parking

Signage at Inn and NF visitor center

NSFS Visitor Center near Jacob Lakes Lodge not prominent

Overlook is problematic = trash/bathrooms

Chain up areas would be a good spot for interpretive signage if kiosks went away

Antelope pronghorn/fence issues

Points of interest

Lonely Dell Ranch at Lee's Ferry

History of Navajo Bridge (Lynn Johnson)

Tuweep/toroweap – remote area of North Rim accessed about 10 miles west of

Fredonia (<http://www.nps.gov/grca/planyourvisit/tuweep.htm>)

North Rim Entrance into park is open until December 1 for 2008 and closed through May 15; concessions close on Oct. 15

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Non-native bison herd in park – management is not sure what to do with them; they are native to House Rock Valley

Other Contacts/getting the word out

Don Foster – Marble Canyon Lodge owner

Terry and Wendy Gunn – owner of Cliff Dwellers' Lodge

Kaibab Lodge and Country Store on SR 67 – owned by Winchesters

Grand Canyon Trail Rides

- Tawn Mangum, Owner

Forever Resorts (Scottsdale) is concessionaire at Lodge and camper store

- Paid for a history project of recorded interviews done in spring 2008 by the owner of the Jacob Lake Inn; the Park has a copy of the project

Patty Thompson, NPS, North Rim concessions manager

Open Road Bike Tours

Pink Jeep Tours

A lot of CVAs – commercial use operator

A lot of bus line tours

Grand Canyon Lodge

Jacob Lake Lodge

Rangers at Glen Canyon

Dave Chapman @ Lee's Ferry Grand Canyon

Fredonia Post Office

Flyers

Robin Tellis (Grand Canyon National Park) spends all year on North Rim

National Park has photo archives we may be able to access

They get a lot of visitors from St. George area and California; Kanab also has a lot of interest in the area

Kevin Larkin, Recreation and Lands Staff Officer, Kaibab National Forest

Wishes and Worries

LeFevre outlook – Restrooms closed

- Water leaks cause bad smell so people don't want to use it
- Has had experts look at problem and no way to fix it short of replacing it
- Would like to see smaller (2 car) parking lot to reduce use of overlook
- Also problems with garbage at this location

House Rock overlook

- Not as much of a problem as LeFevre
- The Vendors help keep the area clean
- Antelope Trails Vendor's Organization – illegal arrangement. There is an agreement but shouldn't be on certain type of land
- Inappropriate use, but in exchange vendors are supposed to clean

Pull outs for chain up area

- West and east at base of mountain, including 3-panel kiosks
- Resulted from a state grant to build snowmobile trails, but kiosks serve no other purpose

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- Kaibab NF content to use those kiosks as interpretive centers; also fine with removing the kiosks

Either end of route kiosk can be removed was funded by snowmobile.

- 3 panel kiosk; doesn't serve any purpose but to post snowmobile notices in winter

BLM – walk thru gates, portal signs by House Rock (Riches),

Vermilion Cliffs Hwy Interpretive signs – poor quality constructed base and signs are warping and controversial (NF visitor center)

Fence modification for antelope area (marginal habitat)

- Raise distance between ground and lowest wire; antelope crawl under fence

Intersection of 67 and 89A – confusing people and signage battles each other

- USFS might have money and/or personnel to help with this
- Jacob Lake Inn owners want problem fixed

CMP way to enhance travelers/visitor experience.

Interpretative Plan for Hwy 67 Byway. Similar to CMP

Non-native plant species

Points of interest

Kaibab Paiute Tribe ancestral home for 500+ years; conflict with Navajo

Kanab Creek – Wilderness area, Kaibab Tribe origin stories

SR 67 is a byway – hoping to develop an interpretive plan that could possibly tie into this CMP

Interpretive sign at Jct. of Condor View Area

AZGFD interpretive sign at 205 trailhead

T&E 10J population of condors

Other Contacts/getting the word out

Fredonia Chamber of Commerce – tourism orientation nominal

Kanab – municipal - tourism turmoil

3 permitted in the park

- Jacob Lake Inn, owned by the Rich family (Rich family has a long history in the area)
- Kaibab Lodge, owned by the Winchester family
- North Rim Country Store (and gas station), owned by Tyler & Betsy Hager

Kaibab Camper Village, near Jacob Lake Lodge, owned by Gaylord Staveley's in Flagstaff

Canyoneers – white water rafting co

Peregrine Fund Chris Paris (Maggie)

Navajo Antelope Trail Vendors

Southern Utah News

Post Office Fredonia

Page Paper

KONY Country Radio

USFS has conference room that could be used for public meeting

USFS has public affairs officer for help in getting word out

KNAU public radio is picked up in area

Scott Sticha – Public Affairs, V. Cliffs Monument

Forest Service conference room holds 25-30; includes white boards around room

public involvement • citizen outreach • stakeholder facilitation

Texas Office • 40 E. Valley Spring Road • Wimberley, TX 78676 • phone (512) 847-7744 • fax (512) 847-7745
 Arizona Office • 1400 N. Lomaland Lane • Flagstaff, AZ 86001 • phone (928) 522-6015 • fax (928) 522-6016

www.intrinsicinfo.com

Lorraine Christian, Field Manager for BLM AZ Strip/Linda Price, Manager for Vermilion Cliffs NM

Wishes and Worries

Walk thru gates, portal signs by house at eastern base of Kaibab Plateau (house is owned by Rich family)

- Want better signage here

Vermilion Cliffs Hwy Interpretive signs – poor quality constructed base and signs are warping and controversial text (NF visitor center)

- Sign panel removed near USFS visitor center at Jacob Lake

Fence modification for antelope area (marginal habitat)

Interpretive sign at Jct. of road to Condor View Area (located at eastern base of Kaibab Plateau)

- Condor Release Viewing Site north of House Rock

AZGFD have wildlife interpretive signs; plan for one at 205 trailhead

Change sign at Buffalo Ranch Rd

New signs written in German and Japanese because they get a lot of these tourists.

Most arrive from north, from Kanab

Hiking Signs. Hiking year around.

T&E plant species

Grand Staircase Monument Center in Kanab

Points of interest

T&E 10J population of condors

Three world-famous hiking trails

Other Contacts/getting the word out

Southern Utah News (out of Kanab)

Post Office Fredonia (centralized mail town)

Page Paper

KONY Country Radio (out of St. George)

KNAU on House Rock Valley side

City office in Fredonia

- Council chambers suitable for public meeting
- Fredonia Fire Station

BLM can help distribute information

- Scott Sticha, public affairs officer at monument

50% of NM visitors are foreign, primarily German and Japanese – looking at foreign language web sites and possibly signage

Come to NM for specific recreational activities, three hikes

Come from Kanab, there is a contact station at Big Water

Fish and Wildlife Service

public involvement • citizen outreach • stakeholder facilitation

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Tom Corrigan – Fredonia Town Manager

Wishes and Worries

Tourism debate – ranchers/free range state vs. tourism

2 projects with consultants that have been unsuccessful in Fredonia

- Widening north of ADOT Center
- SR 389 Project
- Unfinished projects likely issue at any public meeting where ADOT might attend

Crown Asphalt – Fredonia council person (Also owns 3-4 ranches in House Rock Valley)

Widen and remove dead trees near roadway – has fallen on car

- Will trees be given to locals?
- New mill in Fredonia

Missing scenic sign on Fredonia end (project team confirmed it's there)

Need info at ADOT Welcome Center

- Not signed well either

NRCS weeds and ranchers

- Kanab Creek has problem
- Cattle can spread weeds

Kanab Creek – dam up in UT at Kanab

- Possibility that Kanab will dam creek.

SWFL (southwest willow flycatcher) in Kanab Creek and endangered Cactus

Uranium mining

- CREDA thing
- Carl Taylor doesn't want to close mine roads
- 2000 uranium mines; 1 mine layoff, 2 mines mothballed; Mines generate semi truck traffic

To MP 545 Fredonia provides fire response

To House Rock provides medical services

Kaibab Paiute History

No apparent issues with LDS Church per member of his staff; no church owned land, historic site other than Lees Ferry significant to church history

Need local education on existence and significance of scenic road

Other Contacts/getting the word out

Ona Segundo – Kaibab Paiute Tribal Chair

Lee Ann Strazenski, Kaibab Paiute environmental contact

Colorado River Flat Indians

Fredonia meeting place 50 people (council chambers)

Notice of Fredonia council meetings – post 24 to 48 hours in advance

Kent Brinkerhoff in Kanab – LDS church facilities coordinator in Kanab, if want meeting there

Meeting in Fredonia should be done during daytime/business hours

public involvement • citizen outreach • stakeholder facilitation

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Danny Bullets, Kaibab Paiute Vice Chairman

Wishes and Worries

Trucks from Flagstaff on 89A

Trying to upgrade RV Park with cabins, etc

Land within the corridor that tribe runs cattle - David Johnson, ranching contact with Tribe

- May involve grazing leases on public land
- Might need access to land from road

Land with homes by (south) Forest Service bldg in Fredonia

Section of land owned by tribe just east of Fredonia

Tribe thinking of building RV park near Pipe Springs

Points of Interest

Hiking trails – Tribe wants to attract more visitors

Pipe springs NM - <http://www.nps.gov/pisp/>

- Dammed up three years ago; currently fed by piped-in water

<http://www.nps.gov/archive/pisp/tours/entrance.htm>

Powwow in August ~1000 that come from St. George, Nevada, Utah, Tuba City, Kayenta

Other Contacts/getting the word out

Ona Segundo– Kaibab Paiute Tribal Chairwoman 928.643.7245

Lee Ann Strazenski, Kaibab Paiute environmental contact

Charlie Bullets – Tribal cultural contact

David Johnson – Tribal range person

Tribal Newsletter – monthly

5 Villages – bulletin board at each village. Each village has 30 to 40 people. Villages about 15 minute drive to town council room. Villages defined by housing cluster not political boundary. Tribe enrollment = 311. Population on reservation = 250. Council of 7 members. Chairman voted in by tribe, Vice Chairman, Treasurer.

Council meets 3rd Thursday of the month

Moccasin is non-Indian settlement private landowner (Paiute-owned land)

- Tribe also rents housing to low income, non-tribal members

Community Center in Pipe Springs – offered for use for public meeting; has AV facilities

Food availability might help attendance at public meeting

Max King, Branch Chief for Interpretation for Glen Canyon National Recreation Area (including Lee's Ferry) & Christopher Eaton, Executive Director of Glen Canyon Natural History Assoc at Navajo Bridge

Wishes and Worries

Bungee jumping off bridges over Colorado River

Standardize signage for NPS

Jurisdiction issue

- ADOT - bridge
- Glen Canyon – walls
- Grand Canyon – river below bridge

public involvement • citizen outreach • stakeholder facilitation

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How does CMP relate to multi-agency program in which agencies donated money to fund and create signs from Virgin River through Bitter Springs. Any money left over? What is V. Cliffs Highway Project (joint effort of ADOT/Navajo Nation/FS/BLM – groups donated money into a fund – is there any money left?) – question will come up at public meeting; need to be prepared to answer on status and any ties to this effort
Poor quality monument signs along 89A
NPS has recently instituted a Messaging Program to standardize interpretative information.
Bunting Graphics was the sole source for NPS. End of July no longer sole source production.
Re-do kiosk panels at House Rock Valley

Points of Interest

Lonely Dell Ranch at Lee's Ferry
Vermilion Hwy – Virgin River Gorge to Page (signage)(ADOT, FS, Monument, Fredonia, NPS)
Mar – June, Condors at Navajo Bridge
Paiute – great Basin

Other Contacts/getting the word out

Grand Canyon Association – services USFS visitor center at Jacob Lake
Colorado River Discovery, Scott Seyler
Page – Lee's Ferry Concession of Glen Canyon
Aida Hatch – Hatch River Expedition
AZRA
Park commercial permittee
Carolyn Shelton – BLM – Grand Staircase NM Interpretive signage, House Rock – Valley Rd
– Almost a free-lancer; used inter-agency, interpretative specialist, good contact
Page Chamber of Commerce sends weekly notices to members
Weekly email
Megan Wilkins – Grand Canyon NP – new NPS supervisor end of August
Grand Canyon Rangers stationed at Lee's Ferry
Max King is NPS acting Public Affairs Coordinator
Chris Parrish with Peregrine Fund runs local instruction program – Chris Eaton can provide phone #

Dorothy Lee, Bodaway Gap Chapter Coordinator, Navajo Nation and primary contact for Antelope Trails Vendors Organization

Wishes and Worries

Turn outs for school buses
Roadway flooding
Animals in R/W; Elk crossing near Cedar Ridge (on 89) coming from Canyon
Chapter has lease area for hiking, fishing
Put an RV park just before Marble Canyon before curve
– Under consideration

public involvement • citizen outreach • stakeholder facilitation

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- Location just before curve before Navajo Bridge
- Tribe might like help in getting assessment for best location of the RV park

Considering developing reservation side of river for fishing, hiking, etc.

Not enough patrons for vendor org – better signage that they are there

Land use planning – accommodate bicycles high priority

Elders pulling out onto and driving on road – slow drivers, unsafe conditions

No hunting is allowed on Tribal land

Flashing lights to slow down traffic on either end of Gap Trading Post (on 89)

Other Contacts/getting the word out

Grazing Permit Holders, Brain Kensley – Chapter Grazing Official (term ends end of December)

NRCS – Tomas Tso (Natural Resources)

2nd & 3rd Sunday planning and chapter meetings (after first Monday of month; Aug. 10 and 17; Sept. 7 and 14; Oct. 12 and 19; Nov. 9 and 16; Dec. 7 and 14)

Last Thursday of each month, Vendor's Organization meeting (at chapter house)

Community Land Use Planning (CLUP) meeting 1st Monday of each month

Gap Chapter jurisdiction boundary along line of cliffs

public involvement • citizen outreach • stakeholder facilitation

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APPENDIX B

Public Involvement Information

Section 2

Public Meeting Outreach



For Immediate Release

Sept 26, 2008

Contact: Jason Hurd, Public Involvement Coordinator

Phone: 928-607-7156

PUBLIC INVITED TO HELP DEVELOP PLANS FOR THE FREDONIA-VERMILION CLIFFS SCENIC ROAD

Northern Arizona.....The Arizona Department of Transportation (ADOT) invites the public to attend a public meeting and workshop on Thursday, Oct. 16, regarding the Fredonia-Vermilion Cliffs Scenic Road corridor management plan (CMP). The Fredonia-Vermilion Cliffs Scenic Road includes SR 89A from Fredonia to Bitter Springs.

The CMP is a grassroots-level participation project, with support from ADOT and the Federal Highways Administration, in which local desires and issues are documented to serve as a general planning guide for state-designated scenic byways. In addition to addressing issues with the roadway itself, the CMP will also document community goals and develop plans for enhancing and preserving the scenic, natural, historic, cultural, archaeological and recreational qualities of the corridor.

Two public meetings/workshops are scheduled to obtain input from residents, businesses, officials and other interested persons:

- **Thursday, Oct. 16, 2 – 4 p.m. – Marble Canyon Lodge**
On 89A, just west of Navajo Bridge, behind the gas station/convenience store
- **Thursday, Oct. 16, 6:30 – 8:30 p.m. – Fredonia Town Hall**
25 N. Main Street

Each meeting will provide the same information and follow the same format, and light refreshments will be served. ADOT will offer additional information about CMPs, and the public will be asked to share their wishes and worries about the corridor. Interested stakeholders also will be invited to sit on a Citizen Advisory Committee (CAC). The CAC will help guide the development of the CMP, which is expected to take approximately 18 months.

Public participation is vital to this project, as the CMP should document the wishes/worries and needs/desires of the *people* who live, work and play along the route – not just the jurisdictional agencies.

For further information: Jason Hurd, Public Involvement Coordinator:
928-607-7156 or jason@intrinsicinfo.com.

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PUBLIC INVITED TO HELP DEVELOP PLANS FOR VERMILION CLIFFS SCENIC ROAD

The Arizona Department of Transportation (ADOT) invites you to participate in the development of a Corridor Management Plan (CMP) for the Fredonia-Vermilion Cliffs Scenic Road.

The CMP is a grassroots-level participation project in which local desires and issues are documented to serve as a general planning guide for state-designated scenic byways.

Two public meetings/workshops are scheduled to obtain input from the public.
Each meeting will provide the same information.

THURSDAY, OCT. 16, 2008

2 – 4 P.M. – MARBLE CANYON LODGE: ON 89A, JUST WEST OF NAVAJO BRIDGE,
BEHIND THE GAS STATION/CONVENIENCE STORE

6:30 – 8:30 P.M. – FREDONIA TOWN HALL, 25 N. MAIN STREET



Public participation is vital to this project, as the CMP should document the wishes/worries of the people who live, work and play along the route – not just the jurisdictional agencies.

For more information, contact Jason Hurd, Public Involvement Coordinator:
928-607-7156 or jason@intrinsicinfo.com.



The CMP is more than roadway planning. It also will document and develop goals and plans to preserve the following qualities:

Scenic • Natural • Historic • Cultural • Archaeological • Recreational





Flier Delivery Report

Date: Oct. 1, 2008
Location: Gap on 89 and entire length of 89A
Subject: **Flier Delivery to Announce
Vermilion Cliffs CMP Project**
Attendees: Jason Hurd, Intrinsic

On Wednesday, Oct. 1, 2008, Intrinsic staff visited with businesses and agencies throughout the project area. The purpose of the trip was to talk with agency representatives and business owners and managers about the project and the upcoming public meetings, to deliver a flier and request for businesses to post it, to find out what their concerns are and to obtain contact information for future news release distribution. Overall, there were no major concerns, and many people expressed an interest in the project.

The following is a list of all businesses and agencies visited by Intrinsic staff. In most cases, staff members spoke directly with the owner or manager of the businesses. Not all of the businesses were open at the time, and in some cases an owner or manager was not available. Nearly all the businesses that were visited agreed to post the flier.

Gap area

- Bodaway Gap Chapter House, Navajo Nation
- Antelope Trails Vendor's Organization (ATVO)(left info with Gap Chapter Coordinator)
- Gap Express gas station
- Gap Trading Post
- Gap Laundromat
- San Juan Southern Paiute (left info with tribal members who said they would pass on to tribal officers)

Marble Canyon area

- Six private vendors (three locations) between US 89 and Marble Canyon
- Navajo Bridge Interpretive Center
- Lee's Ferry Ranger Station
- Marble Canyon Post Office
- Marble Canyon Lodge
- Marble Canyon Trading Post
- Marble Canyon Laundromat
- Marble Canyon Metal Works
- Exxon gas station
- ATVO at Navajo Bridge
- Lee's Ferry Lodge and Restaurant
- Two private vendors between Lee's Ferry Lodge and Cliff Dwellers Lodge
- Cliff Dwellers Lodge and Restaurant

Jacob Lake area

- Jacob Lake Visitor Center
- Jacob Lake Inn
- ATVO at House Rock Valley Overlook and Le Fevre Overlook



Fredonia area

- Chevron
- Forest Service
- Sinclair Gas Station
- Fredonia Town Hall
- General Store
- Post Office
- Kaibab Paiute Tribal Headquarters
- Red Cliffs Mobil
- Fredonia Moccasin Unified School District
- Lynx Fuel Center
- Fredonia Community Health Clinic
- Kanab grocery store

Additionally, fliers were mailed to the following businesses and agencies:

- Fredonia Welcome Center
- Fredonia Chamber of Commerce
- Fredonia Port of Entry
- Two LDS Churches in Fredonia
- Trinity Church (Fredonia)
- Pipe Spring National Monument
- Kaibab Lodge and North Rim Country Convenience Store
- Grand Canyon National Park, North Rim Administration
- Vermilion Cliffs National Monument
- City of Page
- Page Chamber of Commerce
- Page Tourism Bureau
- Page Unified School District
- Kanab Chamber of Commerce
- Navajo Tourism Department
- Cameron Chapter House
- Coppermine Chapter House
- Tuba City Chapter House
- Navajo Mountain Chapter House
- Lechee Chapter House
- Hopi Tribe Administration
- Hopi Cultural Preservation Office
- Village of Upper Moencopi (Hopi)
- Village of Lower Moencopi (Hopi)
- Chemehuevi Tribe (Havasupai, AZ)
- Grand Canyon Wildlands Council
- NAU School of Forestry
- The Border Store (Colorado City)
- Coast Gas (Kanab)
- Coleman Exxon (Kanab)
- Honey's Fuel Center (Kanab)
- Sinclair (Kanab)
- Samco Gas (Kanab)
- Stage Stop Gas (Kanab)
- Walkers, Inc. Gas (Kanab)

Comments

While visiting with some of the private vendors just east of Marble Canyon, the following comments were recorded:

- There is a lot of trash from tourists, and we can't use the dumpster at the Navajo Bridge.
- We don't want more tourists. Keep it just the way it is – no new developments.
- Maybe we need an Adopt a Highway program for this route.
- Safety and aesthetics are our biggest concerns.
- The road needs to be widened in House Rock Valley.
- There are a lot of disoriented tourists. Need better signage to Lee's Ferry campground.
- The environment is very sensitive along the strip. Don't promote it for more visitors. Concentrate on already developed areas.
- More weed control along the roadway.

PUBLIC INVITED TO HELP DEVELOP PLANS FOR VERMILION CLIFFS SCENIC ROAD

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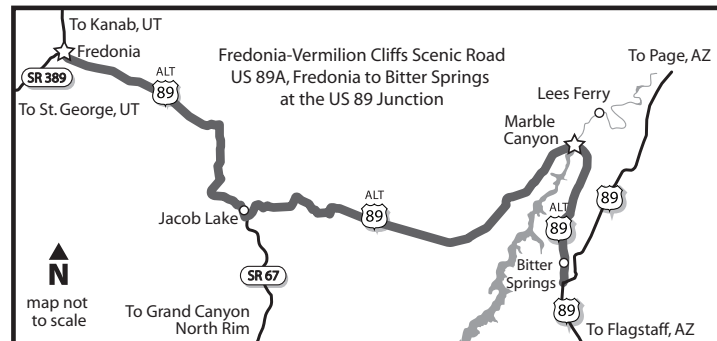
The CMP is a grassroots-level participation project in which local desires and issues are documented to serve as a general planning guide for state-designated scenic byways.

Two public meetings/workshops are scheduled to obtain input from the public. Each meeting will provide the same information.

THURSDAY, OCT. 16, 2008

2 – 4 P.M. – MARBLE CANYON LODGE: ON 89A, JUST WEST OF NAVAJO BRIDGE, BEHIND THE GAS STATION/CONVENIENCE STORE

6:30 – 8:30 P.M. – FREDONIA TOWN HALL, 25 N. MAIN STREET



Public participation is vital to this project, as the CMP should document the wishes/worries of the people who live, work and play along the route – not just the jurisdictional agencies.

For more information, contact Jason Hurd, Public Involvement Coordinator:
928-607-7156 or jason@intrinsicinfo.com.



**The CMP is more than roadway planning.
It also will document and develop
goals and plans to preserve the following qualities:**

Scenic • Natural • Historic • Cultural • Archaeological • Recreational



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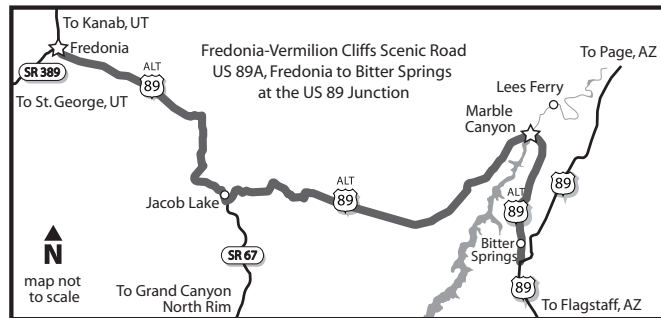
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Run Dates – KONY (St. George, UT) and KXAZ (Page, AZ): Oct. 13-15, 2008
Contact: Jason Hurd, Public Involvement Coordinator
Intrinsic – 928-607-7156
Page 1 of 1

THE ARIZONA DEPARTMENT OF TRANSPORTATION INVITES YOU TO HELP DEVELOP A
CORRIDOR MANAGEMENT PLAN FOR THE VERMILION CLIFFS SCENIC ROAD.

THIS IS A STAKEHOLDER-DRIVEN PROJECT TO DOCUMENT LOCAL DESIRES AND
ISSUES FOR STATE ROUTE 89A FROM FREDONIA TO BITTER SPRINGS.

PLEASE JOIN US ON THURSDAY, OCTOBER 16, FROM 2 TO 4 P.M. AT MARBLE CANYON
LODGE, BEHIND THE GAS STATION OR FROM 6:30 TO 8:30 P.M. AT THE FREDONIA TOWN
HALL.

FOR MORE INFORMATION, CALL 928-607-7156.

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For more information, please contact:

- ♦ Public Involvement Coordinator, Jason Hurd at Intrinsic – (928) 607-7156 or jason@intrinsicinfo.com

Public invited to help develop plan for Fredonia-Vermilion Cliffs Scenic road

The Arizona Department of Transportation (ADOT) invites the public to attend a public meeting and workshop on Thursday, October 16, regarding the Fredonia-Vermilion Cliffs Scenic Road corridor management plan. The Fredonia-Vermilion Cliffs Scenic Road includes SR 89A from Fredonia to Bitter Springs.

Two public meetings/work-

shops are scheduled to obtain input from residents, businesses, officials and other interested persons:

• Thursday, October 16, 2 – 4 p.m. at Marble Canyon Lodge, on 89A, just west of Navajo Bridge, behind the gas station/convenience store

• Thursday, October 16, 6:30 – 8:30 p.m. at Fredonia Town Hall, 25 N. Main Street.

PUBLIC INVITED TO HELP DEVELOP PLANS FOR VERMILION CLIFFS SCENIC ROAD

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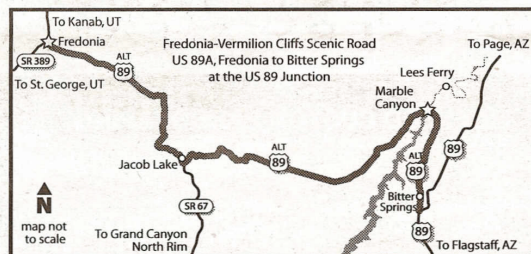
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Scenic • Natural • Historic • Cultural • Archaeological • Recreational



Public input needed for development plans on Vermilion Cliffs scenic road

Lake Powell Chronicle

The Arizona Department of Transportation invites the public to attend a public meeting and workshop on Oct. 16, regarding the Fredonia-Vermilion Cliffs Scenic Road corridor management plan. The Fredonia-Vermilion Cliffs Scenic Road includes SR 89A from Fredonia to Bitter Springs.

The CMP is a grassroots-level participation project, with support from ADOT and the Federal Highways Administration, in which local

desires and issues are documented to serve as a general planning guide for state-designated scenic byways. In addition to addressing issues with the roadway itself, the CMP will also document community goals and development plans for enhancing and preserving the scenic, natural, historic, cultural, archaeological and recreational qualities of the corridor.

Two public meetings and workshops are scheduled to obtain input from residents, businesses, officials and other

interested persons:

Thursday, Oct. 16, 2 p.m. to 4 p.m. – Marble Canyon Lodge on U.S. 89A, just west of Navajo Bridge, behind the gas station/convenience store

Thursday, Oct. 16, 6:30 p.m. to 8:30 p.m. – Fredonia Town Hall, 25 N. Main Street

Each meeting will provide the same information and follow the same format, and light refreshments will be served. ADOT will offer additional information about

CMPs, and the public will be asked to share their wishes and worries about the corridor. Interested stakeholders also will be invited to sit on a Citizen Advisory Committee. The advisory committee will help guide the development of the CMP, which is expected to take approximately 18 months.

Public participation is vital to this project, as the CMP should document the wishes, worries, needs and desires of the people who live, work and play along the route, not just the jurisdictional agencies.

Fredonia-Vermilion Cliffs Scenic Road

By Kelly Hilding

The Fredonia Town Hall was packed on October 16, with concerned citizens curious about the Fredonia-Vermilion Cliffs Scenic Road Corridor Management Plan.

On hand to field questions was a skilled team compiled of ADOT employees, Intrinsic employees (specializing in public involvement and citizen outreach), and an environmental planner.

Beginning south of Page at Bitter Springs and meandering all the way to Fredonia, Hwy 89A is a spectacular drive for history buffs, photographers and nature lovers alike. Because of these reasons, the 82-mile stretch has been designated an Arizona Scenic Road. The prestigious honor adds the road to an exclusive list of Arizona byways, including roads like the Red Rock Scenic Road in Sedona and Kayenta-Monument Valley Scenic Road.

As an Arizona Scenic Road, the area is already receiving positive publicity on www.arizonascenicroads.com. The designation is featured under the "Northern" icon, with a full

page of interesting historical facts, wildlife information and other points of interest. It also contains community links, and travel itinerary assistance, to help tourists make the most of their journey on the road.

As an Arizona Scenic Road, there is the possibility for national designation. As a National Scenic Byway, there are additional benefits such as greater promotion and advertising, as well as priority in Scenic Byway grant funds.

In order to be considered for national designation, a Corridor Management Plan (CMP) must be completed. A CMP is a grassroots-level community planning document that looks at the entire scenic/historic route(s) and incorporates local visions and ideas into the process.

It brings focus on community goals to improve and enhance the area, protect and inform about historical and wildlife significance, and create new funding possibilities to achieve these goals.

Community members brainstormed about ideas. Attendees suggested bike lanes, additional

pullouts and interpretive information, along with pages of other ideas for area benefit.

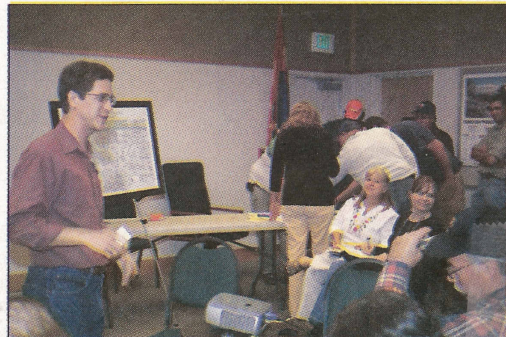
Concerns were also noted. One key concern was that Fredonia is not currently included in the Corridor Management Plan. It actually begins south of Fredonia.

Susan Springer, of Intrinsic, explained that they were in the beginning stages of the plan and with enough input, it could possibly be rectified to include the town. Other concerns expressed were wildlife safety, road safety and protection of the scenic view shed.

The initial wishes and worries of the community will be accepted through November 7, 2008 via phone: 928-607-7156, fax: 928-286-1067 or e-mail: jason@intrinsicinfo.com.

Anyone who would like to join the citizen advisory committee is encouraged to contact Jason Hurd at the listed numbers.

The CMP process takes approximately two years. Once the plan is complete, communities are given the tools to acquire funding to facilitate action. Assistance is available to help



Jason Hurd, of Intrinsic, listens to community wishes and worries for the Fredonia-Vermilion Cliffs Arizona Scenic Road Corridor Management Plan. Photo by Kelly Hilding.

make the community goals and visions a reality.

The Scenic Road Designation and Corridor Management Plan present opportunities for Fredonia to come together to realize community goals.

As Springer explained, "It gives your community a voice, a

cohesive, more powerful voice."

For more information on the program visit:

www.azdot.gov/highways/SWProjMgmt/enhancement/scenic_roads/index.asp

www.arizonascenicroads.com
www.byways.org
www.bywaysonline.org

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APPENDIX B

Public Involvement Information

Section 3

Public Comment Report

Public Involvement Information
Fredonia-Vermilion Cliffs Scenic Road CMP



Public Comment Report

Meeting Date: Oct. 16, 2008
Comment Period: Oct. 16 to Nov. 7, 2008
Location: Marble Canyon Lodge & Fredonia Town Hall
Subject: Fredonia-Vermilion Cliffs Scenic Road Corridor
Management Plan: Special Places & Wishes/Worries
Attendees: *See sign-in sheets*

The Arizona Department of Transportation (ADOT) is preparing a Corridor Management Plan for the Fredonia-Vermilion Cliffs Scenic Road, which is US 89A from Bitter Springs to Fredonia. On Thursday, October 16, 2008, ADOT held two public meetings to obtain public input about special places and wishes/worries regarding the scenic byway. The first meeting was held from 2 to 4 p.m. at the Marble Canyon Lodge, and the second meeting was held from 6:30 to 8:30 p.m. at the Fredonia Town Hall.

In addition to the two public meetings, ADOT consultants sought input from agency representatives during a field review conducted in late July 2008, from some local businesses during a flier delivery trip in early October 2008, and from interested stakeholders during a public comment period following the public meetings through Nov. 7, 2008.

Identifying special places is one of the first steps in documenting the corridor's intrinsic qualities, and listing the public's wishes and worries is the first step in developing goals and objectives to protect and enhance the intrinsic qualities. Following are all public comments received as of Nov. 18, 2008, regarding special places and wishes/worries:

Special Places

Scenic

- Overlook on west edge of Kaibab, view to north of pink cliffs and west of Arizona strip (Le Fevre).
- House Rock Valley Overlook
- Grand Staircase (view of)
- W/E Historic view site (*need's clarification*)
- Badger Creek overlook
- Current scenic overlooks
- Great views from Cliff Dwellers Lodge
- The Le Fevre Overlook affords a uniquely monumental perspective of the Grand Staircase-Escalante National Monument



Trails/Recreation/Events

- In Fredonia there is an amazing area for off-road and hiking. “The Clamshell” has petroglyphs for all to enjoy.
- Dominguez Escalante Historic Trail
- Jacob Hamblin Trails
- Old Spanish National Historic Route (Armijo Route)
- Rachel’s Pools/Sanderack (Sheep) Trail
- Spanish Trail
- Great Western Trail
- Hiking trails (creation of small ones)
- Dominguez Escalante Trail
- Honeymoon trail to Little Colorado River: Arizona strip LDS couples traveled from Holbrook area to get married at the LDS temple in St. George
- Honeymoon Trail wagon wheel tracks (Echo Cliffs area)
- Honeymoon Trail is also a Hopi-Paiute trail
- Arizona Trail Trailhead
- Three world-famous hiking trails (*needs clarification*)
- Hiking trails: Kaibab Paiute Tribe wants to attract more visitors
- Pioneer Days, July 24, in Kanab
- Kaibab Paiute Tribe hosts a yearly powwow in August that attracts approximately 1,000 people from St. George, Nevada, Utah, Tuba City, Kayenta
- Campground at Jacob Lake
- Grand Staircase Monument Center in Kanab
- John Wesley Powell Camp
- This entire route is a very important regional transportation link due to blocking of north-south travel by the Grand Canyon.
- I have often driven highway 89A from Flagstaff to Lees Ferry to Kanab, and much of the road has the kinds of attributes that many long distance touring cyclists find attractive-incredible scenery, a mix of rolling hills, flats and good climbs, and a temperate winter climate in the lower reaches that would prove irresistible, and could well become a magnet for guided bike tours, which would introduce a new source of tourist revenues.

Natural/Geologic

- Between milepost 541 and 542, Vermilion Cliffs – Badger Creek
- Echo Cliffs
- Vermilion Cliffs
- House Rock Valley
- Kaibab Plateau
- The Vermilion Cliffs National Monument
- The California Condor population
- Jacob’s Pools (at the base of the cliffs)
- Petrified wood road
- Signature Springs



- Navajo Springs
- Signature Rock (on private land near Vermilion Cliffs area)
- Rosy Canyon
- Coyote Cliffs
- Kanab Creek and Snake Gulch: interpretive place
- Pipe Springs National Monument
- Arizona Strip National Heritage area (AZ, UT, CO, NM); Arizona Strip is nearly 4 million acres
- Hack Site wilderness area
- Tuweep/Toroweap: remote area of North Rim accessed about 10 miles west of Fredonia
- Marble Canyon
- Whole East Kaibab Monocline
- Buckskin Gulch
- National monuments
- Geologic interpretation of House Rock which is a fault line
- Geology in general
- Tiny places that should not be but survive anyways

Cultural/Historic

- Navajo Bridge at Marble Canyon. It is the only canyon crossing route for the region.
- Navajo Bridge (historic)
- Sharlot Hall 1911 trip (Arizona Statehood)
- Jacob Lake Inn
- Three historic lodges: Marble Canyon, Vermilion Cliffs, Cliff Dwellers
- Two Mile Ranch
- Bucks Farm
- Balanced rocks/historic buildings at Soap Creek
- Buffalo Ranch (Near House Rock) (AZGFD)
- Lonely Dell Ranch and Lee's Ferry National Historic District: history, hiking, river access
- Lees Ferry Interpretive Center
- Cabin near Jacobs's pools was owned by one of Lee's (of Lee's Ferry) many wives
- Inscription Rock (side trip): Mormon pioneers carved their names on the rock
- Prehistoric Sites
- Archaeological sites
- Historically, the area has been a major Junction between cultures (Kaibab, Hopi, Navajo, Mormon pioneers)
- Kane Ranch: Grand Canyon Trust purchase; 860,000 acres grazing leases on public land; encompasses most of the eastern Arizona Strip
- House Rock: House Rock Valley Rd. (from 89 north of Page to 89A)



- Hopi-Paiute connections: Hopi-Kaibab Trail; Paiute tribe gathered plants on plateau; ancestral land
- Bean Hole Ranch
- Kaibab Paiute Tribe ancestral home for 500+ years
- Kanab Creek: Wilderness area, Kaibab Tribe origin stories

Wildlife

- Any location where there is significant wildlife crossings.
- Mule Deer corridor (migration)
- AGFD wildlife management area – bison, mule deer and apache trout
- Non-native bison herd in park – management is not sure what to do with them; they are native to House Rock Valley
- T&E 10J population of condors
- Condor release viewing site north of House Rock
- Condors at Navajo Bridge
- The Kaibab Plateau is a scenic, biologically diverse region containing an impressive array of species; at least one, the Kaibab squirrel, is unique to the region. The area contains other significant species including mule deer, mountain lions, goshawks and other raptors, and a variety of migratory neotropical and resident birds.
- House Rock Valley, likewise, is a significant scenic and wildlife area, including pronghorn and the California condor and other raptor species.
- All the species listed in the two bullets above are particularly susceptible to mortality directly related to vehicular traffic.

Wishes

Roadway Related

- Install rumble strips on the entire length of the corridor
- Passing lane going north from Fredonia (close gap in passing lanes)
- Stoplight at SR 389/US 89A junction in Fredonia
- Install passing lanes, turn lanes and shoulders
- Improve SR 67/US 89A junction
- Need guardrail at milepost 591 on US 89A
- Better road maintenance
- Future modifications of the highway should include consideration for cycling tourism. Wider (2-3 foot minimum) shoulders, judicious use of rumble strips (narrow, intermittent and located close to the white line), adequate maintenance of the shoulder and “Share the Road” signage would significantly improve the enjoyment and safety of both cyclists and the drivers that share the road with them.
- Need box culvert extensions
- Widen and remove dead trees near roadway: have fallen on cars; give trees to locals; new mill in Fredonia



- Install turn outs for school buses
- Keep SR 67 open year-round
- Update information regarding SR 67 with tourist info outlets (seasonal closures)
- Make the route off-limits to semi trucks
- Move POE to east of Fredonia
- LeFevre overlook: improve access
- Stabilize banks (erosion due to fire) & return flow channel
- For safety and to allow for leisurely motor travel consistent with a scenic byway designation, semi-truck traffic should be directed to use US 89.
- Lower speed limits, probably 45 mph, should be established for the section of 89A across the Kaibab Plateau (west of BLM1065 and east of FS/BLM 2200-100 at the base of the Plateau just west of Le Fevre Ridge).
- Enforcement of speed limits needs to increase.
- The highway should remain a two lane, moderate-speed (45-50 mph) route.
- No significant widening of travel lanes should occur east of the junction of 89A between FS 225 and BLM 1065, especially through Trail Canyon. Slow vehicle turnouts would be preferable to passing lanes throughout the entire length of 89A.
- Allow river rafting companies to the west (Kanab) to use 89A again rather than make the longer trip through Page via 89

Signage/Interpretation/Kiosks

- AZGFD interpretive sign at 205 trailhead
- Need educational signage at Honeymoon Trail to make more meaningful to public
- Interpretive pullouts/kiosks: use existing pullouts and be context sensitive; cohesive interpretive signage
- Condors signage
- Advance signage for pullouts
- Make Lee's Ferry sign larger
- Identify wilderness roads early
- Install a sign at Navajo Bridge both entering and leaving the Navajo Nation
- The area has a very interesting prehistory and history that lends itself to public interpretation. There are great interpretive opportunities along that highway, from both a cultural and natural perspective. But, interpretation should be in keeping with the scenic qualities of the area.
- Jacob Lake intersection - need better directional signage
- Would like a wayside exhibit at LeFevre overlook
- House Rock signage needs improvements
- Regional branding goal; make relevance clear
- Gateway Signs
- Signage at Jacob Lake Inn and National Forest visitor center
- AZGFD have wildlife interpretive signs; plan for one at 205 trailhead
- Change sign at Buffalo Ranch Road



- New signs written in German and Japanese
- Hiking Signs
- Need better signage at Fredonia Welcome Center
- Standardize signage for National Parks Service
- LeFevre overlook: improve signage
- Chain up areas would be a good spot for interpretive signage
- Interpretive sign at junction of road to Condor View Area (located at eastern base of Kaibab Plateau)
- Not enough patrons for roadside vendors: better signage that they are there
- LeFevre Overlook needs to be preserved as is, in its most natural state, and with the best possible signage/interpretation. Similar respect/protection needs to be provided for the House Rock Valley overlook.
- In general, there should be no billboards allowed anywhere in the proposed corridor, including at the junction towards Page. No digital electronic billboards should be allowed, such as have appeared at The Gap.
- Do not touch anything from House Rock Valley to Bitter Springs, except interpretive signs outside Fredonia, at House Rock Valley and at Bitter Springs.

Planning Efforts

- SR 67 is a state designated Parkway: hoping to develop an interpretive plan that could possibly tie into this CMP
- Bodaway Gap Chapter thinking of putting an RV park just east of Marble Canyon before curve
- Bodaway Gap Chapter considering developing reservation side of river for fishing, hiking, etc.
- Kaibab Paiute Tribe wants to upgrade RV Park with cabins, etc
- Kaibab Paiute Tribe thinking of building RV park near Pipe Springs

Fencing/Wildlife

- Preserve antelope crossing
- Fence modification for antelope area (marginal habitat); raise distance between ground and lowest wire; antelope can crawl under the fence
- Condors and road kill: need tourist education not to interfere
- Mule deer migration: wildlife crossings
- Protection of wildlife (slower speeds and wildlife crossing areas) should be a high priority
- Wildlife mortality needs better documentation and should include all species

Cultural/Historic

- Medicinal/religious activities: make permit process easier for plant and wood gathering; improve relationship between Forest Service and tribes
- Need ethnographic inventory of entire corridor to include all tribes with interest in the area
- Kaibab Paiute history



- Navajo history
- Hopi history

General

- Snake Gulch should be a national monument
- Extend CMP limits west on SR 389 to the state line; include Fredonia and Colorado City
- Pipe Springs National Monument, rehabilitate and upgrade
- Protect scenic viewshed
- Comply with section 106 NHPA
- The structures along the side of the road should be upgraded to make them more uniform with the view shed
- Protection/education
- Increase sense of importance for the area
- Hiking year-round
- Need info at ADOT Welcome Center in Fredonia
- Need local education on existence and significance of scenic road
- Increase in bicycle use would mean more business
- 89A's designation as a scenic byway should emphasize an enjoyable, relatively safe and slower paced experience for motorists visiting the Kaibab Plateau, Grand Canyon and House Rock Valley
- Bungee jumping from Navajo bridge sounds like a great concessionaire possibility

Worries

Roadway & Safety

- Safety
 - I have been passed in no passing zones, simply because I was going the speed limit. People in a big hurry are VERY dangerous to themselves and everyone else on the road.
 - People often do not stay in their lanes coming around curves, and wider shoulders would give drivers some wiggle room.
 - Road improvements may lead to higher speeds/increased safety issues
 - Super elevations are not to current design standards
 - Narrow road cuts
 - Lack of speed enforcement
 - Dangerous turn lanes
 - Winter driving, elevation change
 - Car crashes at milepost 598, between 590 & 593, 574 and at Jacob lake
 - Most of the existing pavement (width 20-24') is striped at its extreme margins, allowing no buffer for bicyclists of any sort.
 - Roadway is 22 feet wide; no shoulder
 - Some of the pavement is very old; need to repave road

Vermilion Cliffs CMP, Public Comment Report
Page 7 of 12



- ADOT improvements increased danger of roadway; the turn lane in front of the Vermilion Cliffs Lodge is used as a passing lane
- Dangerous road; not wide enough
- Elders pulling out onto and driving on road: slow drivers, unsafe conditions
- Increased traffic if US 89A becomes a National Scenic Byway
- ADOT – vehicle counts do not currently support making improvements
- Non-standard geometry
- Truck traffic
 - Over design, width, and use by semi trucks
 - Vehicles passing trucks
 - Excessive truck speed
 - Lots of Wal Mart and Swift trucks; unable to locate company contact to complain about Swift trucks
 - Wal Mart distribution center in Hurricane, UT
 - Weight of trucks as drivers brag about being overweight and avoiding the weight scale at Fredonia POE
 - Ban big trucks from road
 - Dangerous, primary route for semi trucks: high speed trucks; trucks are routed with GPS, which doesn't take into account topography; trucks slow going uphill which causes faster traffic to take risks in passing, i.e. on curves
 - Trucks can avoid POE on US 89A at north end of Fredonia by taking Rosy Canyon Road (north of Kanab) to Arizona SR 389, so there are oversize/illegal loads on US 89A
 - Due to growth in Hurricane and St. George area, traffic on 89A has increased in last 5-10 years: NAFTA impetus behind truck traffic; traffic studies needed; county won't touch state/federal roads
 - Approx. 700 Annual Daily Traffic; the only thing to change on the route in the past 20 years is the increase in semi truck traffic; most winter accidents are trucks sliding off the road
 - Noise of jake brakes echoing off cliffs
 - Trucks from Flagstaff travel on SR 89A
 - Trucks use access road in front of Jacob Lake Inn for parking
- Flooding of roadway at Trail Canyon crossing (Warm Fire 2 years ago) and two areas in House Rock Valley
- A lot of river runner traffic on 89A
- Traffic volume is often heavy and speed limits are not adequately enforced
- Vehicular noise, particularly from semi-trucks, is frequent even at night

Signage/Interpretation/Kiosks

- No uniform interpretive signage
- Kiosk/signage/pullout east of Fredonia (Forest Road 22)
- BLM interpretive sign location (Honeymoon Trail sign)
- May we NEVER have billboards on US 89A



- Kiosks are not maintained: should they be removed?
- Vermilion Cliffs Highway Project: signage exists along the highway now; was an ADOT supported project facilitated by the BLM
- Better signage at walk-thru gates/portal signs by house at eastern base of Kaibab Plateau
- Vermilion Cliffs Highway Interpretive signs: poor quality constructed base and signs are warping and controversial
- Poor quality monument signs along SR 89A
- National Parks Service has recently instituted a Messaging Program to standardize interpretative information
- Re-do kiosk panels at House Rock Valley
- No pullouts, no signs: I don't want people driving up our public road, maintained by no county, state or federal agency, stopping to ask directions, use the toilet, etc., scaring the dogs, churning up dust, turning around in my driveway day and night, knocking down my fence.
- Prohibitive signs are ineffective
- Pullouts for chain-up area at west and east base of plateau, including 3-panel kiosks; resulted from a state grant to build snowmobile trails, but kiosks serve no other purpose; Kaibab National Forest is content to use those kiosks as interpretive centers; also fine with removing the kiosks
- SR 67/US 89A intersection confusing signage

Wildlife/Fauna

- Endangered pincushion cactus
- There are Brady pincushion cacti along US 89A between the Vermilion Cliffs Lodge and Cliff Dwellers, as well as along the cliffs/ridges further south on BLM lands. One area of particular interest is the area with the pullout and huge boulders. This is the area where a semi-truck turned over. There are Brady pincushion cacti just on the other side of those boulders, and that area gets frequent use from travelers. (In this area between the rocks and right of way fence/boundary, there are no cacti. This area has been identified by BLM and USFWS as Potential Habitat only, but those agencies requested the rocks be placed to reduce the size of the pullout thus minimizing impact to the area from vehicular traffic. Both agencies prefer to not publicly identify actual locations of these cacti to avoid theft and potential damage.)
- There are Kaibab plains cacti along and not far off the highway as you traverse up the east side of the Kaibab Plateau.
- As you approach Fredonia, the Siler pincushion cacti are not far from the highway.
- In addition to these three listed or conservation agreement species, there is a BLM special status species, the Siler fishhook cactus, found along US 89A just west of Cliff Dwellers, as well as on the Paria Plateau.
- Concerns with condors center around condor/people interactions (trash, road kill, etc.)



- T&E plant and animal species: cactus, condor, etc.
- Southwest willow flycatcher and habitat in Kanab Creek and endangered cacti
- Possible yellow-billed cuckoos and habitat in Kanab Creek as well
- Fickeisen plains cactus (candidate) along the Kaibab Plateau, in the Kaibab National Forest and nearby on BLM land
- Jones cycladenia (endangered) along the HWY 389 corridor if that is included
- Welsh's milkweed (threatened) near the UT/AZ state line on/near the Paria Plateau
- Mexican spotted owls and critical habitat along the Kaibab Plateau and North Rim of the Grand Canyon
- Apache trout (threatened) occur in North Canyon
- Antelope pronghorn/fence issues
- Non-native plant species
- Kanab ambersnail (endangered) occurs in pools along the highway near Kanab, UT.
- Holmgren milkvetch (endangered), bear claw poppy (endangered), and Mojave desert tortoise (threatened) are all listed species that occur around St. George, UT.
- The above two bullets should be included if the designation extends toward St. George, UT and/or Kanab, UT. Their inclusion also is important if the currently proposed stretch of highway increases traffic to these areas.
- NRCS weeds and ranchers: Kanab Creek has problem; cattle can spread weeds
- Animals in right of way; elk crossing near Cedar Ridge (on US 89) coming from SR 89A
- Stock fences at Jacob Lake: lack of fencing from Jacob Lake to Fredonia
- No right of way fence in many areas; cattle and wildlife on the road: ADOT has begun a Project Assessment on the fencing
- Buffalo Ranch: managed herd near House Rock

Jurisdictional

- Bungee jumping off Navajo Bridge: cultural, safety and jurisdictional concerns; need a designated agency to enforce regulations
- Private land access
- For many, many years, the Navajo people have been gathering plants for medicinal and ceremonial use within and outside the road corridor of US 89A. Over time, Navajo people have been cited, paid fines and even arrested for such activities. We understand that the Forest Service requires a permit for gathering plants, but with the distance and time it takes to travel to Fredonia Forest Service offices, it is just that much easier to gather when the need arises.
- The LeFevre and House Rock Overlooks: The Antelope Trails Vendor Organization of the Bodaway Gap Chapter has acquired an authorization from the Kaibab Paiute Tribe to sell their arts and crafts at these two sites for an annual fee. Would it be best to acquire an agreement with the Chapter directly, rather than with another tribe? The Navajo Nation as a whole has utilized the



Kaibab National Forest for natural and cultural resources, and the area has a religious significance. Navajo people have traveled to Kaibab and Dixie National Forests to hunt wild game, utilizing the Lee's Ferry Crossing for years, which is why we should have direct agreements with ADOT and Kaibab National Forest without going through another tribe such as Kaibab Paiute on any type of agreements.

- How will this integrate with ADOT's Framework study?
- Antelope Trails Vendor's Organization – there is an agreement but shouldn't be on certain type of land
- Fredonia provides fire response on US 89A east to milepost 545 and medical services east to House Rock
- Land within the corridor that Kaibab Paiute tribe runs cattle on; may involve grazing leases on public land; might need access to land from road
- No hunting is allowed on Navajo tribal land (*Need to confirm/clarify, per an additional comment: Hunting is allowed for both Navajos and Non-Navajos per Navajo Fish and Wildlife Department's Rules and Regulations.*)

Unprotected Areas

- Petrified wood area: keep public away
- Unprotected archaeological sites
- Paiute Cemetery (House Rock Valley): don't advertise, protect
- Signature Rock is very special, but it is on private land and should not be shared
- Possible trespassing on private ranch property. Some of the springs (Signature Rock) are very frail. Most of the rocks have fallen, and there is some new graffiti over some of the historic names. The ruins of the old house at Jacob Pools is of concern because people dismantling it. Someone has pulled the chimney down, and the south wall is ready to come out. The bricks of names carved in them are slowly disappearing.

Recreation

- ATVs
- Disturbance at monuments
- Family picnic areas and litter control
- Lots of foreign visitors
- US 89A is one of two routes used to access the North Rim of the Grand Canyon
- There are lots of bicycle tours out of Fredonia
- Tourism debate: ranchers/free range state vs. tourism

General

- Corridor limits: should include Pipe Springs National Monument and Shiprock
- Historical/cultural ties to Utah stronger than to Arizona
- Utah designated a portion of US 89 near Kanab, and many locals see the effort as not having been worth it
- View degradation due to Warm Fire



- Economic issue: trucks don't stop; no fuel sales; Kanab wants the semi truck traffic; Kanab wants to increase US 89 to four lanes
- Forest Service Visitor Center near Jacob Lake Inn is not prominent
- LeFevre outlook: restrooms closed; water leaks cause bad smell so people don't want to use it, so they use the woods; experts looked at problem and saw no way to fix it short of replacing it; high maintenance; eyesore; vandalism; would like to see smaller (2 car) parking lot to reduce use of overlook; also problems with garbage at this location
- Two ADOT projects that have been unsuccessful in Fredonia: widening north of Fredonia Welcome Center and SR 389 project
- Kanab Creek: dammed in Utah at Kanab; possibility that Kanab will dam creek



APPENDIX B

Public Involvement Information

Section 4

Citizen Advisory Committee

Public Involvement Information
Fredonia-Vermilion Cliffs Scenic Road CMP

CITIZEN ADVISORY COMMITTEE VOLUNTEER SIGN-UP

FREDONIA-VERMILION CLIFFS SCENIC ROAD CORRIDOR MANAGEMENT PLAN

CAC volunteers will help guide the development of the CMP. CAC members are expected to attend periodic planning meetings, help gather information, draft sections of the CMP and provide reviews and approvals of CMP drafts. The first CAC meeting is expected to be held in early December, 2008, and the CMP process is expected to take approximately 18 months.

Please provide your contact information if you would like to volunteer for the Citizen Advisory Committee:

Name	Mailing Address	Phone	Fax and E-mail
* Megan Wilkins		(928) 628-6253	megan-wilkins@kps.gov
Sue Crach	HC 67-36 Marble Canyon AZ 86036	928-355-2322	sevach@gmail.com
Maggi Sacher			vcMaggi@mac.com
RONA Levin	HC 67-16 MC AZ 86036	CALL → 928-355-2262	ARIZONARONA@hotmail.com
CARL TAYLOR			
Kurt Henrich	PO BOX 544	928 643 6086	kurtHenrich54@msm.com
TODD ALLISON	P.O. Box 248 Fredonia 1162	928-643-8143	gtallison@ps.fed.us
HARRIS ALLEN	PO BOX 311 FREDONIA	928-643-7013	lisa-harris-allen@hotmail.com
Dustin Burger	Box 248 Fredonia	928 643-8136	dburger@fscd.us
Ted Jensen	P.O. Box 168 Page AZ	928-645-9562	ttjensen@srpnet.com
Arizona Strip District	345 E. Riverside Dr. St. George, UT	435-688-3200	

THANK YOU!





Citizen Advisory Committee Meeting Report

Meeting Date: Dec. 3, 2008
Location: Jacob Lake Inn
Subject: Fredonia-Vermilion Cliffs Scenic Road Corridor
Management Plan: Vision Statement & Goals
Attendees: *See sign-in sheet*

The Arizona Department of Transportation (ADOT) is preparing a Corridor Management Plan (CMP) for the Fredonia-Vermilion Cliffs Scenic Road, which is US 89A from Bitter Springs to Fredonia. On Thursday, October 16, 2008, ADOT held two public meetings, one each in Marble Canyon and Fredonia, to obtain public input about special places and wishes/worries regarding the scenic byway.

On Wednesday, Dec. 3, 2008, ADOT held the first meeting of the Citizen Advisory Committee (CAC), which was formed during the public meetings to help guide the creation of the CMP. The purpose of the CAC meeting was to draft a vision statement for the corridor and to begin developing the goals necessary to realize the vision. Following are the vision statement, the goals and next steps recorded at the meeting.

Vision Statement

Prior to the visioning exercise, the definition of a vision statement was discussed. A vision statement is meant to be a broad statement of what this corridor should look or be like in the future. As opposed to a mission statement, which identifies actions to take, the vision statement should identify the long-term goal.

CAC members discussed their visions for the corridor's future and drafted the following vision statement for the Fredonia-Vermilion Cliffs Scenic Road:

*To provide a safe, modern highway, while preserving the
predominantly natural and remote character of the corridor.*

Goals

Prior to developing goals to realize the vision, the definition of goals was discussed. Goals are meant to help realize the vision, but are still fairly broad in nature. Measurable objectives will be developed for each goal. Ultimately, objectives will be pursued individually to reach the goals, which will lead toward realizing the vision.



CAC members discussed their goals for the corridor and developed the following goals for the Fredonia-Vermilion Cliffs Scenic Road (objectives discussed at the meeting are included):

1. Increase roadway safety
 - a. Widen travel lanes
 - b. Widen shoulders
 - c. Pursue ADOT's Road Safety Assessment Program
 - i. Through this program, ADOT will assemble a team of evaluators to review the roadway, report on safety deficiencies and identify specific steps to improve safety. The program is independent from local ADOT districts, and evaluators are chosen from throughout the state to help ensure objectivity. The report developed by the evaluators could be used to lobby for funding of specific safety improvement projects along the corridor.
 - d. Pursue grants from the Safe Rural Roads Program
 - e. Designate scenic pullouts before drivers reach them to decrease number of motorists stopping in the roadway
 - f. Develop pullouts for large vehicles
2. Increase bicycle accommodations along the corridor
3. Limit public access to sensitive areas
 - a. Planning should include discussions with tribes and agencies regarding areas to limit and areas to promote
4. Minimize new roadway developments (pullouts, interpretation areas, etc.)
 - a. Concentrate development efforts on existing sites and activities with easy and safe access
5. Ensure/preserve scenic qualities of the corridor
 - a. Careful placement of new signage
6. Increase ADA compliancy
 - a. Improve ADA access where feasible on existing developments
 - b. Include ADA access with new developments
7. Ensure a positive visitor experience
 - a. Research visitor points of interest
 - b. Determine viability for commercial entities
 - c. Provide interpretive information regarding Native American cultures
 - d. Provide on and off-road experiences
8. Respect and preserve the corridor's many cultures
 - a. The Kaibab Band of Paiute Indians maintains cultural and spiritual ties to the Kaibab Plateau
 - b. Public access should be restricted from areas recognized as sensitive or sacred by tribes
 - c. Tribal histories and cultures of the area should be recognized
9. Limit commercial use of the roadway
 - a. Limit semi-truck use of the corridor
 - i. Enforce log and weight regulations



- b. New pullouts should not lead to increase of roadside vendors
- 10. Limit noise pollution, such as large motorcycle groups
- 11. Decide whether or not to pursue historic designation for the corridor along with the current scenic designation
- 12. Keep pullout areas clean
 - a. Part of the contract with the Antelope Trail Vendors Organization to set up stands at the LeFevre and House Rock Valley overlooks includes trash collection

Next Steps

The Byway Story

An important element in the CMP will be “telling the byway story.” This section will include the history of the corridor, particularly in documenting the people and activities that have impacted the corridor’s current character. Sue Cvach, CAC member, volunteered to coordinate this task. **CAC members and all stakeholders are encouraged to offer any insights or resources to assist in developing the corridor’s story.** The following resources were identified at the meeting:

- Matt Rich encouraged contacting his mother, who has lived in the area most of her 85 years and has a wealth of history to share.
- Forest archaeologist Connie Reid may have valuable information to share.
- Maggie Sacher has video tapes of old ranchers telling their stories of the area.
- Jacob Lake Inn has some history of the area displayed in the lodge.

Developing the Goals and Objectives

CAC members and all stakeholders are encouraged to offer additional goals and to provide specific, measurable objectives for each goal.

Developing the CMP

ADOT consultants will begin developing the “Existing Conditions” and “Intrinsic Qualities Inventory” sections of the CMP. **CAC members and all stakeholders are encouraged to offer any information or resources that may be helpful in this process.** Information about these two sections is included on one of the handouts distributed at the CAC meeting and can be sent to anyone who requests copies. Reviewing drafts of the “Existing Conditions” and the “Intrinsic Qualities Inventory” sections will be a topic for the next CAC meeting.

CAC and Stakeholder Involvement

Jason Hurd, ADOT consultant, will act as a liaison between stakeholders and the ADOT consultants. Please send any information related to the above three tasks to Jason, and he will ensure it gets to the appropriate individuals. Jason can be reached by phone, 928-607-7156; by fax, 928-286-1067; by mail, 1400 N. Lomalai Lane, Flagstaff, AZ 86001; and by email, jason@intrinsicinfo.com.

Next Meeting

The next CAC meeting will be from 10 a.m. to noon on Wednesday, March 4, 2009, at the Jacob Lake Inn.



Citizen Advisory Committee Meeting Report

Meeting Date: March 4, 2009
Location: Jacob Lake Inn
Subject: Fredonia-Vermilion Cliffs Scenic Road Corridor
Management Plan: Draft Existing Conditions, Intrinsic
Qualities Inventory and Byway Story
Attendees: *Sign-in sheet available upon request*

The Arizona Department of Transportation (ADOT) is preparing a Corridor Management Plan (CMP) for the Fredonia-Vermilion Cliffs Scenic Road, which is US 89A from Bitter Springs to Fredonia. On Thursday, October 16, 2008, ADOT held two public meetings, one each in Marble Canyon and Fredonia, to obtain public input about special places and wishes/worries regarding the scenic byway.

A Citizen Advisory Committee (CAC) was formed during the public meetings to help guide the creation of the CMP. The CAC held its first meeting on Dec. 3, 2008 to draft a vision statement for the corridor and to begin developing the goals necessary to realize the vision. The CAC held its second meeting on Wednesday, March 4, 2009 to review drafts of the Existing Conditions, Intrinsic Qualities Inventory and The Byway Story. Following are comments on the draft documents and notes from the March 4 meeting.

Draft Document Comments

The following comments on the draft documents were recorded at the meeting:

- Generally, the sections on archaeology, culture and history need more work than other sections. (Only include those adjacent to the highway and already public knowledge.)
- It was suggested to put the chart of Threatened and Endangered Species in the back of the CMP as an appendix.
- Include information on watchable wildlife sites. There are 4-5 sites along the corridor.
- Meeting participants questioned the statement about the desert grasslands being one of the most endangered ecosystems. This information needs to be confirmed or changed. (Appears in Existing Conditions, Part I, page 1)
- The following topics are considered too sensitive to include in the CMP:
 - Any private areas without public access
 - Dangerous areas
 - Snake Gulch – we don't want to promote this area to the public

Vermilion Cliffs CMP, CAC Meeting Report
Page 1 of 4



- Delete rock climbing as a recreational opportunity. (see Intrinsic Qualities, Part II, page 5)
- The Navajo Bridge Visitor Center is closed from December to May. The bridge itself, as well as the ATVO vendors on the east side of the bridge, are available to visitors year-round. (see Existing Conditions, Part I, page 15, 4th paragraph)
- Rachel's Pool is the same as Jacob's Pool. (Private land; no public access)
- Visitors cannot actually drive the Honeymoon Trail. Only sections of the trail are available for motor vehicles; they could hike the area, but in many places there is no sign of passage, just a general idea of where the trail went as much of the trail is not there anymore.
- Need to develop a section on safety issues to include (*note that Judy Culver with the assistance of LE's will be drafting this section; see Next Steps below*):
 - Leave no trace; tread lightly
 - Off road vehicles and restrictions
 - Land use ethics
 - Emergency situations with non-English speakers (foreign tourists)
 - Lack of designated responder along corridor
- Need to develop an explanation of what "sacred" means to the tribes involved.
- Need to revise language regarding vehicle accidents, specifically the role of speeding. It was pointed out that speeding may be a factor in an accident even if the drivers were going under the speed limit. Reword to not make it look like everyone is speeding on this roadway. A possible rephrasing might be, "A contributing cause was speed."
- Need to address multi-lingual issues with tourists.
- The Vermilion Cliffs Highway Project needs to be referenced if not included as an appendix. The project included stakeholders from St. George to Page, and it developed interpretive plans for the entire corridor. BLM was the lead on the project and may have a copy of plans that were developed.
- Need to include any sites, buildings, etc, that might qualify for historic designation to reference as potential future projects. The Arizona Trail has applied for historic designation (did not pass the Omnibus of 2009, yet).
- Existing Conditions, Part I, page 1, 2nd paragraph, 2nd line: the Colorado River does not start at Lees Ferry.
- Existing Conditions, Part I, page 7: include Coconino County Sheriff's Department in list of agencies that govern the road.
- Intrinsic Qualities, Part II, page 10 – Arizona Trail: the trail crosses US 89A at MP 577, at Forest Service Road 205; there is a map of the trail approx. 50 yards south of the 89A roadway.
- Intrinsic Qualities, Part II, page 10 – Dominguez Escalante Trail: the interpretive area is at MP 557.7. The pullout is paved and signed in both directions on 89A.
- Need information on tribes' historical relationships with, and tribal activities/events at, each of the historic lodges.



Meeting Notes

The following general comments on the project were recorded at the meeting:

- There is a lot of confusion about the corridor boundaries and how much detail to include on any given topic. The concern is that we could write volumes on the area, so we need some limits. The following perspectives were offered on how much detail to include:
 - Enough detail for a visitor to develop an appreciation for the area
 - Enough detail for a prospective grant reviewer to see any potential project in the proper context
 - Only include areas/information we want to publicly promote (some of the areas discussed in the draft materials are too sensitive and should not be included – items specifically mentioned are in the Draft Documents Comments section above)
 - Refer to the ADOT Scenic Roads web site for more details on the type of information to include:
(http://www.azdot.gov/Highways/SWProjMgmt/enhancement/scenic_road_s/Index.asp)
- Meeting participants were unsatisfied with the disjointedness of the draft documents. One suggestion was to have only one writer work on the document. This suggestion was considered unrealistic with multiple consultants and CAC members working on the draft documents. Another suggestion was to have one designated editor be responsible for consistency, transitions and avoiding repetitive information. The group volunteered Maggie Sacher for this task. Susan Springer, Project Manager and lead consultant, will provide final edits and revisions; Maggie Sacher will assist Susan.
- The following organizations were mentioned as stakeholders that should be involved in the CMP development:
 - Grand Canyon Trust – they have grazing rights on much of the land in the Arizona Strip
 - Canyon Region Economic Development Alliance (CREDA) – they are working on providing year-round employment opportunities in the region
 - Tribal elders – they can provide information and stories on land formations
 - Mackelprang family – they have a long history in the region
 - San Juan Southern Paiute – it was suggested to contact the BIA if unable to contact the tribe directly
 - Southern Paiute Consortium



Next Steps

The following individuals offered to either provide write-ups on certain topics or to coordinate obtaining information on certain topics:

- Judy Culver, BLM, AZ Strip: offered to write up a section on safety concerns
- John Hiscock, BLM, Pipe Springs National Monument: monument staff will provide comments on information related to the monument, including pointing out information that should be taken out
- Pauline Wilson, NPS, & Maryanne Christie, Antelope Trail Vendors Organization (ATVO): will work with the Bodaway Gap Chapter and other Navajo agencies to provide information on Navajo history in the area, Navajo cultural considerations and other related information
- Carl Taylor, Coconino County: offered to ask CREDA for volunteers to help draft economic development related sections
- Megan Wilkins, NPS: will ask a seasonal employee in April to draft language regarding Lees Ferry

The consultants working with ADOT to prepare the Fredonia-Vermilion Cliffs Scenic Road CMP will incorporate comments received from stakeholders into the Existing Conditions and Intrinsic Qualities Inventory. CAC member Sue Cvach will revise The Byway Story. All of the aforementioned sections of the CMP will undergo revisions as information becomes available and as stakeholder comments are provided throughout the project.

Developing the following sections will be the next steps in writing the CMP. CAC members and all stakeholders are encouraged to share ideas and/or write-ups on the following topics:

- Strategy for maintaining and enhancing the corridor's intrinsic qualities
- Plan for ongoing public participation (upon completion of the CMP)
- A narrative describing how the byway will be positioned for marketing
- A description of plans to interpret the significant resources of the scenic byway

CAC and Stakeholder Involvement

Jason Hurd, ADOT consultant, will act as a liaison between stakeholders and the ADOT consultants. Please send any information related to the project to Jason, and he will ensure it gets to the appropriate individuals. Jason can be reached by phone, 928-607-7156; by fax, 928-286-1067; by mail, 1400 N. Lomalai Lane, Flagstaff, AZ 86001; and by email, jason@intrinsicinfo.com.

Next Meeting

The next CAC meeting is scheduled for Thursday, July 9, 2009, 10 a.m. to noon, in the Bright Angel Conference Room at the Coconino County Human Resources Building in Flagstaff, located at 420 N. San Francisco St.



Citizen Advisory Committee Meeting Report

Meeting Date: July 9, 2009
Location: Coconino County Human Resources Building, Flagstaff
Subject: Fredonia-Vermilion Cliffs Scenic Road Corridor
Management Plan: Draft CMP
Attendees: *Sign-in sheet available upon request*

The Arizona Department of Transportation (ADOT) is preparing a Corridor Management Plan (CMP) for the Fredonia-Vermilion Cliffs Scenic Road, which is US 89A from Bitter Springs to Fredonia. On Thursday, October 16, 2008, ADOT held two public meetings, one each in Marble Canyon and Fredonia, to obtain public input about special places and wishes/worries regarding the scenic byway.

A Citizen Advisory Committee (CAC) was formed during the public meetings to help guide the creation of the CMP. The CAC held its first meeting on Dec. 3, 2008, to draft a vision statement for the corridor and to begin developing the goals necessary to realize the vision. The CAC held its second meeting on Wednesday, March 4, 2009, to review drafts of the Existing Conditions, Intrinsic Qualities Inventory and The Byway Story. The CAC held its third meeting on Thursday, July 9, 2009, to review the draft CMP. Following are comments on each section of the draft CMP recorded at the July 9 meeting.

The Byway Story

- Page 1: talks about explorers in 1851; and on page 6 it talks about the Spanish in 1700s. Need to correlate this information.
- We should refer to the roadway as "US Highway 89A" on all mentions rather than "US 89A."
- Andi Rogers to send comments on the meaning of "reintroduced."
- Page 2, 2nd paragraph: expand on history and settlement of lodges.
- There is waste from the Honeymoon Trail at the head of Badger Canyon.
 - That area is protected by the BLM. The trash is considered memorabilia and cannot be removed.
 - Need to determine the age. Diana Hawks might know.
 - Is the LDS Church interested in this?
 - The Kaibab Vermilion Cliffs Heritage Alliance is also interested.
 - The Park Service started the nomination.
 - The Hopi and Paiute call it the Hopi-Paiute Trail.
- Buffalo Ranch is the Houserock Wildlife Area.



Intrinsic Qualities Inventory

- Characterize shift in topography, climate and vegetation from lower areas to the top of the plateau.
- North Kaibab National Forest is incorrect.
- Page 8, Navajo history: the settlement was later, and chapters were not formed until 1900s.
- Page 9: there is no research to show locals were used as guides for prospecting. The 49ers were mostly afraid to venture into unknown areas.
 - This information was based on oral history.
- Page 25, under Vermilion Cliffs Condor Viewing: USFWS will provide additional comments to replace “relaxed” language regarding rules. It is still protected.
- Page 26: provide directions to condor viewing site from the other direction as well.
- Page 27: add “natural quiet” or “natural soundscape and quiet” to list of natural resources.
- Page 28: hunting is allowed in the Glen Canyon National Recreation Area.
- Include the cultural significance of plants and animals.
- Page. 34: there is no white water rafting here; that is in the Grand Canyon. Also, mention that once you start downriver, you’re in it for a long time. People need to get permits for rafting.
- Many people go to this “scenic wonderland” just to look, paint, draw, be inspired, etc, rather than for hunting or fishing.
- Sight-seeing is noted in the CMP.
- Page 36: Don’t describe as “dated.” Limited parking is only an issue at Lonely Dell. Avoid negativity and pointing out all the restrictions.
- Anywhere permits are said to be necessary, provide contact information for obtaining permits.
- Add language regarding the condor reintroduction effort.
- Arizona Game and Fish Department provided language to an ADOT consultant that is not included in the CMP.
- Not all deer are Kaibab deer.
- The tables are missing condors, spotted owl, others? USFWS will provide corrections. Pincushion belongs in a different category.
- Lees Ferry: needs improved language regarding fishing and activities.
- The CMP needs references/citations for people to be able to review correctly.
- Fishing, not fly fishing. Maggie Sacher and Megan Wilkins to send comments.
- The Bureau of Land Management provided ADOT consultants with comments on the archaeological and historic sections.
- The USFWS provided ADOT consultants with a list of protected and candidate species. Several federally listed plants are very near the roadway and shown in the chart. Do we want to publicize these species? The USFWS is concerned with species protection regarding any new roadway pullouts.



Existing Conditions

- Page 40: want to show the historic places listed in the chart on a map
 - All areas of interest should be shown on a map
- Bats should be mentioned in the CMP, specifically the spotted bat. Andi Rogers can provide information.
- Badgers also should be mentioned. Andi Rogers can provide information.
- Avoid listing animal populations. The numbers fluctuate. Focus on habitat, behavior, etc.
- Page 45: Check on the low ADT number with the Arizona Study. Dee Bowling will look into it.
 - The roadway might be tagged for improvements.
 - Some improvement requirements are based on accidents rather than ADT
- Page 52: incorrect information on the preserve. They did not authorize the removal of lions. Andi Rogers will send more information.
- Page 54: grazing does occur
- Page 55: warning light – see Susan's notes
- In safety section, define the percentage of single-vehicle accidents and the percentage that result in fatalities
- The US Fish and Wildlife Service (USFWS) should be consulted when any roadway improvements are planned. Any developments or increased use of the roadway should take species protection into account.

Goals and Objectives

- The Navajo Nation Scenic Byways Program plans to pursue funding for interpretive projects on the Navajo Nation side of the corridor.
- We need more input on goals from people not here today.
- We need an interim review prior to sending the draft CMP to ADOT's Parkways, Historic and Scenic Roads Advisory Committee (PHSRAC) and the Federal Highways Administration (FHWA).
- Develop area plans.
- Water is an issue with any new developments.
- The existing interpretive signs at the Honeymoon Trail need to be improved. Maggie Sacher will provide more details.
- Page 58: The USFWS has species' protection concerns with any new improvements and would like to be informed of specific proposed improvements.
- Page 60: Bicycles should ideally have a minimum of four feet.
- Page 60: Add historic designation as a goal.
- ADOT does environmental reviews for all roadway improvement projects.
- Last bullet: fencing is contrary to the goal of connectivity.
- All agencies should be coordinated with on any projects within their jurisdiction, including, but not limited to, USFWS, Arizona Game and Fish, US Forest Service, Bureau of Land Management, tribes, etc.



- There may be a need for a separate meeting with ADOT, USFWS and other interested parties regarding the impacts of improvements.
- ADOT should reconsider having a final public meeting for the CMP.
- ADOT should consult with locals on roadway improvements.
- Need to explain in the CMP how the Goals and Objectives and other sections were developed. Acknowledge contradictions and clarify that it is a living document that can be revised/append. Recognize where there are agreements and where there are disagreements.
- Page 61: trailblazer signs were identified in the previous study and need to be included here.

Strategy for maintaining and enhancing the corridor's intrinsic qualities

- Need barriers near protected plants
- Develop a protection and restoration program

A description of plans to interpret the significant resources of the scenic byway

- The Navajo Nation Scenic Byways Program wants to move forward with interpretive plans for the section of the road in the Navajo Nation and is interested in coordinating with any other interpretive plans.
- Develop historical guide information for the area.

A narrative describing how the byway will be positioned for marketing

- There were no comments on this section.

Plan for ongoing public participation (upon completion of the CMP)

- Include a list of groups to be part of the ongoing effort.

Appendix: Safety Information

- Page 72: don't suggest hiring a guide, most people don't.
- Include a note in the wildlife section about observing from a distance. USFWS can provide information. Should we mention anything about condors here?
- Include information on hyponatremia, lack of salt.
- Inform visitors to leave everything alone, including rocks, plants and even old trash.
- Let people know not to go through closed gates.

Next Steps

- The review period ended on July 17.
- ADOT consultants will incorporate comments received into the CMP and send the revision to stakeholders for review in a few weeks.
- Stakeholders will have 2-3 weeks to review.
- ADOT consultants will again incorporate comments and then send to the PHSRAC and FHWA for review as the final draft.
- CMP will be graphically designed and laid out for printing.
- Next CAC meeting – date TBD



On April 30, 2012, the Parkways, Historic and Scenic Roads Advisory Committee (PHSRAC) officially approved the Vermilion Cliffs Corridor Management Plan - the final step before it is turned over to local citizens for implementation.

public involvement • citizen outreach • stakeholder facilitation

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APPENDIX B

Public Involvement Information

Section 5

Stakeholder Meetings

Public Involvement Information
Fredonia-Vermilion Cliffs Scenic Road CMP



Stakeholder Meetings

The following individual stakeholder meetings were held by stakeholder request during the development of the Fredonia-Vermilion Cliffs Scenic Road Corridor Management Plan. The purpose of most meetings was to provide an overview of the project and to solicit participation from the various organizations. The last two meetings on the list were held specifically to provide content and comments for the CMP.

- **Kaibab Vermilion Cliffs Heritage Alliance, September 5, 2008**
- **U.S. Fish and Wildlife Service, October 30, 2008**
- **Kaibab Band of Paiute Indians Tribal Council, November 20, 2008**
- **Community and Land Use Planning (CLUP) Committee of the Bodaway-Gap Chapter of the Navajo Nation, March 2, 2009**
- **Hopi Cultural Preservation Office, March 18, 2009**
- **CLUP Committee of the Bodaway-Gap Chapter of the Navajo Nation and the Navajo Nation Historic Preservation Office, September 22, 2009**



APPENDIX B

Public Involvement Information

Section 6

CMP Contributors and Review Participants

Public Involvement Information
Fredonia-Vermilion Cliffs Scenic Road CMP

Fredonia-Vermilion Cliffs Scenic Road Corridor Management Plan Contributors and Review Participants



CMP Content Contributors

The following individuals and organizations provided significant resources and/or portions of the CMP text:

- Andi Rogers, Arizona Game and Fish Department
- Charley Bullets, Kaibab Band of Paiute Indians
- Connie Reid, North Kaibab Ranger District, U.S. Forest Service
- Dolly Lane and members of the Bodaway/Gap CLUP Committee
- Judy Culver, Vermilion Cliffs National Monument, Bureau of Land Management
- Leigh Kuwanwisiwma and Terry Morgart, Hopi Cultural Preservation Office
- Maggie Sacher, resident and business owner
- Megan Wilkins, Glen Canyon National Recreation Area
- Pauline Wilson, Glen Canyon National recreation Area, American Indian Liaison
- Ron Maldonado, Navajo Nation Historic Preservation Department
- Thomas Kliewer, ADOT
- Verene Tait and members of the Fredonia Historical Society
- Walter Link, ADOT

CMP Reviewers

The following individuals and organizations participated in CMP reviews and offered comments on CMP drafts:

- | | |
|--|---|
| • Andi Rogers, Arizona Game and Fish Department | • Kathie Adams, Grand Canyon National Park |
| • Brenda Smith, US Fish and Wildlife Service | • Kim Crumbo, Grand Canyon Wildlands Council |
| • Brian Wooldridge, U.S. Fish and Wildlife Service | • Maggie Sacher, resident and business owner |
| • Charley Bullets, Kaibab Band of Paiute Indians | • MaryAnne Christie, Antelope Trail Vendors Organization |
| • Connie Reid, North Kaibab Ranger District, U.S. Forest Service | • Megan Wilkins, Glen Canyon National Recreation Area |
| • Dennis Foster, interested stakeholder | • Michael Woods, Page resident |
| • Diana Hawks, Arizona Strip District, Bureau of Land Management | • Ron Anderson, Coconino County Sheriff's Office |
| • Dick Hingson, Sierra Club | • Ron Maldonado, Navajo Nation Historic Preservation Department |
| • Dolly Lane, Bodaway/Gap CLUP Committee | • Rona Levein, resident |
| • Dorothy Lee, Bodaway/Gap Chapter of the Navajo Nation | • Rose Houck, Kaibab Vermilion Cliffs Heritage Alliance |
| • John Heyneman, Grand Canyon Trust | • Sandy Bahr, Sierra Club |
| • John Hiscock, National Park Service, Pipe Spring National Monument | • Scott Sticha, Arizona Strip District, Bureau of Land Management |
| • Judy Culver, Vermilion Cliffs National Monument, Bureau of Land Management | • Stephen Mackelprang, ADOT |
| | • Sue Cvach, resident |
| | • Ted Jensen, Fredonia resident |
| | • Thomas Kliewer, ADOT |
| | • Tim Dalegowski, Coconino County |

APPENDIX C



FUNDING SOURCES

The pursuit of funding opportunities will be the responsibility of the Fredonia-Vermilion Cliffs Scenic Road Citizen's Advisory Committee and byway stakeholders.

The following table lists potential public and privately funding sources.

Funding Source	Program	Description	Eligibility
Federal	National Scenic Byways	www.bywaysonline.org/grants/ www.fhwa.dot.gov/tea21/factsheets/scenic.htm www.adotscenicroads.com	States, Councils of Governments (COG's) local governments.
Federal	Transportation Enhancements	www.enhancements.org www.fhwa.dot.gov/tea21/factsheets/te.htm	States, COG's, local governments.
Federal	Transportation Infrastructure	www.tifia.fhwa.dot.gov/	Open to all parties that represent a significant transportation corridor.
Federal	Finance and Innovation Act	www.fhwa.dot.gov/environment/rectrails/index.htm	Local, state or federal agencies and private organizations.
Federal	Recreational Trails Program	Grants.gov allows organizations to electronically find and apply for more than \$400 billion in federal grants. Grants.gov is THE single access point for over 1000 grant programs offered by all federal grant-making agencies. www.grants.gov/	
Federal	We the People Challenge Grants for United States History, Institutions and Culture	Provided by the National Endowment of the Humanities, the grants are designed to be used to support long-term improvements in and support for humanities activities that explore significant themes and events in American history, thereby advancing knowledge of the founding principles of the United States in their full historical and institutional context. www.neh.gov	State, county, Municipal Special District governments, tribal governments.
State	Arizona Transportation Enhancement Program	www.adotscenicroads.com www.adotenhancement.com	Anyone may apply, only sponsorship by a governmental body is required.
State	State Parks Grant Program (Arizona)	www.pr.state.az.us/partnerships/grants/grants.html	Municipal, county, state, federal or tribal government.
State	Arizona Office of Tourism	Rural Tourism Development Grant Program Teamwork for Effective Arizona Marketing Grant www.azot.gov/	County, municipal, tribal.
Foundation	Arizona Community Foundation	www.azfoundation.org/	Non-profit organizations.

APPENDIX D



APPENDIX D: ARIZONA TRANSPORTATION ENHANCEMENT PROGRAM

The Transportation Enhancement (TE) program was developed to enhance surface transportation activities by developing projects that go above and beyond what transportation departments typically do.

The estimated annual TE funds available to Arizona are currently about \$16 million per year. The ADOT Transportation Enhancement and Scenic Roads Section administers this federally funded program through the FHWA.

The TE program was made possible by Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), reauthorized in 1998 under the Transportation Equity Act for the 21st Century (TEA-21), and was reauthorized in 2005, under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

Any federal, state, tribal or local government, group, or individual may apply for enhancement funding. However, a governmental body must sponsor the project.

This restriction is necessitated by project development and financial administration requirements. Private nonprofit and civic organizations are encouraged to work with governmental agencies to develop project applications. Project applications are required and are available through Metropolitan Planning Organizations (MPOs), Councils of Governments (COGs), the ADOT Web site (<http://www.adotenhancement.com>) or ADOT staff.

APPENDIX E



APPENDIX E:

NATIONAL SCENIC BYWAYS PROGRAM INFORMATION

The National Scenic Byways Discretionary Grants program provides merit-based funding for byway-related projects each year. When developing proposed projects, setting priorities, and summarizing the scope and purpose of each project, it is suggested to use the following questions to help in the decision making. The significance of these or other questions that come to your mind may well vary with individual projects.

How will your byway travelers benefit from the proposed project?

National Scenic Byways Program funds help support projects to improve the quality and continuity of the traveler's experience, essential to attracting more visitors or enticing them to stay longer.

What part of your byway's story will the proposed project help tell or enhance?

Managing the intrinsic qualities that shape your byway's story and interpreting your story for visitors are equally important in improving the quality of the traveler's experience.

How will the proposed project help strengthen your byway organization?

The vitality of a byway is only as strong as your leadership. FHWA is encouraging the use of National Scenic Byways Program funds to strengthen your byway organization's capacity to help implement the CMP for roads designated as one of America's Byways. Seed grants are meant to implement specific elements of a byway's CMP for a road designated as one of America's Byways. However, seed grants are no longer eligible for National Scenic Byways funds.

National Scenic Byway Designation Nomination

The following information was derived from the Nomination Guide at the federal Web site on scenic roads and the National Scenic Road designation process.

Nomination requires a large amount of work and a resulting designation would involve ongoing responsibilities, involvement and effort. Once designated, byways have a responsibility to the region, America's Byways collection and to travelers. The nomination process has been separated into steps that will simultaneously help you determine if this is a good time for you to proceed and, if it is, to begin gathering information to submit to FHWA.

Nomination is submitted via the internet and consists of a preliminary description of your byway as a whole, followed by three main sections:

Part 1

Captures the traveler experience and requires you to describe what the byway is like today and what travelers will find if they visit. You will be asked to paint a realistic and authentic picture of the road, features, events, and amenities of the corridor in specific relation to the major intrinsic quality for which the road would be designated.

Part 2

Captures information specifically related to the FHWA's Interim Policy for National Scenic Byways published in the Federal Register on May 18, 1995. Visit <http://www.bywaysonline.org/library/display/29607/FedReg.pdf>. Much of this information will come directly from your completed CMP.

Part 3

Includes additional technical and factual information about the byway. Data collected on each byway helps determine how the nominated corridor will contribute to and support the entire collection of America's Byways.

APPENDIX F



APPENDIX F: ADOT PHSRAC CMP REVIEW PROCEDURES

The ADOT Parkways, Historic and Scenic Roads Advisory Committee (PHSRAC) reviews, prioritizes and evaluates designation requests based on established criteria and the quality of resources. The PHSRAC may also review significant changes and is authorized to de-designate a scenic byway if deemed necessary to maintain the integrity of the overall byways program.

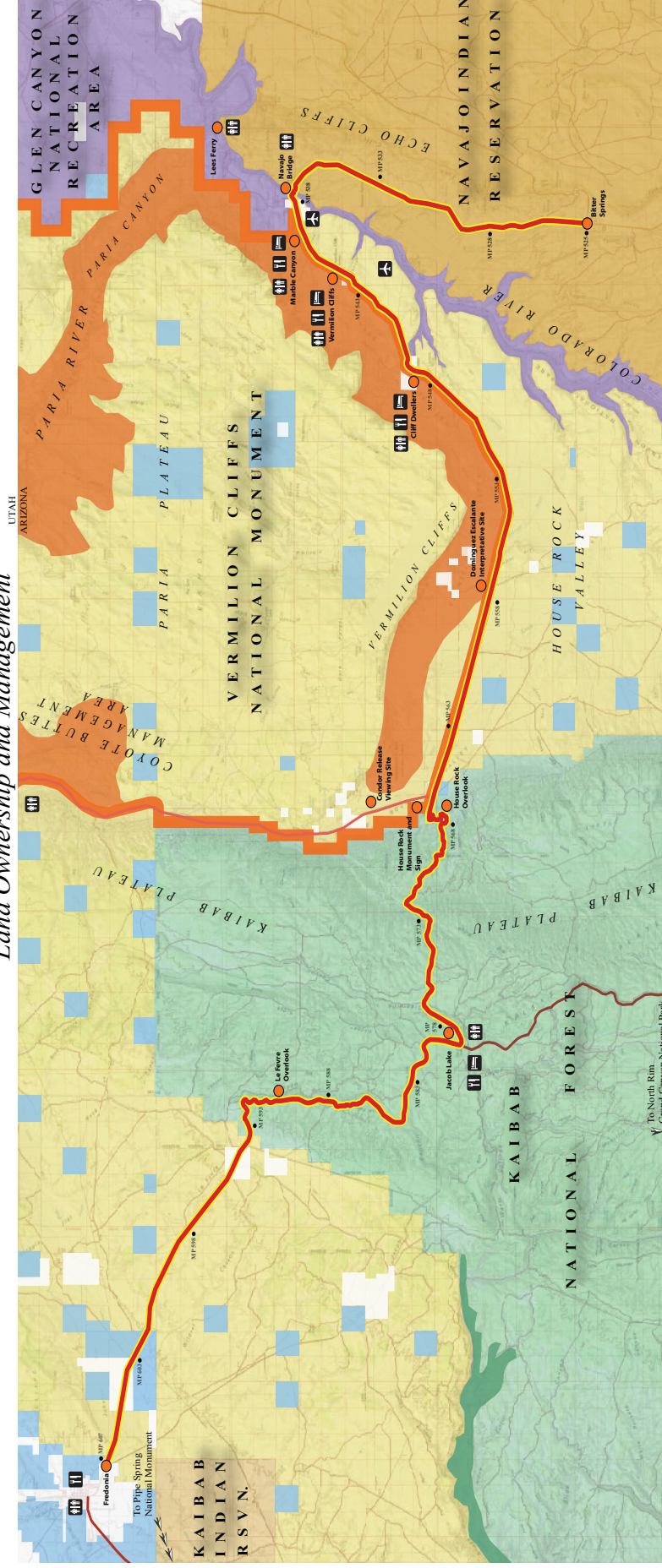
R17-3-806. Review of Existing Designated Parkway or Historic or Scenic Road

- Review.
 - PHSRAC will review a designated road to compare and ensure that the present conditions and resources comply with the conditions and resources that existed at the time the road was designated in order to ensure continued designation.
- PHSRAC will conduct a review:
 - At least every five years from initial designation,
 - At the design stage of any construction or reconstruction proposed by the Department or the entity having jurisdiction of the designated road, or
 - If the entity having jurisdiction or a local community group recommend deletion of the designated road.
- Corridor Management Plan ("CMP").
 - The Department incorporates by reference the Federal Highways Administration's Notice of FHWA interim policy, published in the Federal Register, 60 F.R. 26759, May 18, 1995, and no later amendments or editions. The incorporated material is on file with the Department.
 - The entity having jurisdiction or any member of the public will use the guidelines outlined in the Notice of FHWA interim policy, incorporated by reference in R17-3-806(B)(1), to prepare a CMP.
 - The entity having jurisdiction or any member of the public will submit a CMP to PHSRAC as stated in R17-3-803(A), for PHSRAC's review.
 - At a meeting convened under A.R.S. Title 38, Article 3.1, PHSRAC will discuss and vote on whether to recommend to the Department or the entity having jurisdiction to adopt and implement the CMP, using the guidelines outlined in the Federal Highways Administration's Notice of FHWA interim policy.
- Deletion.
 - Based on its review conducted under subsection (A), PHSRAC will discuss and vote on a recommendation for deletion of a designated road at a meeting convened under A.R.S. Title 38, Article 3.1.
 - Reconsideration. The entity having jurisdiction of a designated road or a local community group may request that PHSRAC reconsider its decision if PHSRAC recommends deletion of a designated road.
 - The entity requesting reconsideration has 60 days from the date of PHSRAC's decision to present additional information to PHSRAC. Additional information includes data that emphasizes the factors PHSRAC considers in R17-3-804(A), and emphasizes the road's unique features or special qualities that could be protected or enhanced. The Department will prepare the additional information if the road is a state highway.
 - PHSRAC will not reconsider its decision if the entity requesting reconsideration does not submit additional information.
 - PHSRAC will use the procedures described in R17-3-805 to reconsider its decision.
 - PHSRAC will submit a recommendation for deletion to the Director for the Director to present to the Transportation Board.

APPENDIX G



Fredonia-Vermilion Cliffs Scenic Road Land Ownership and Management

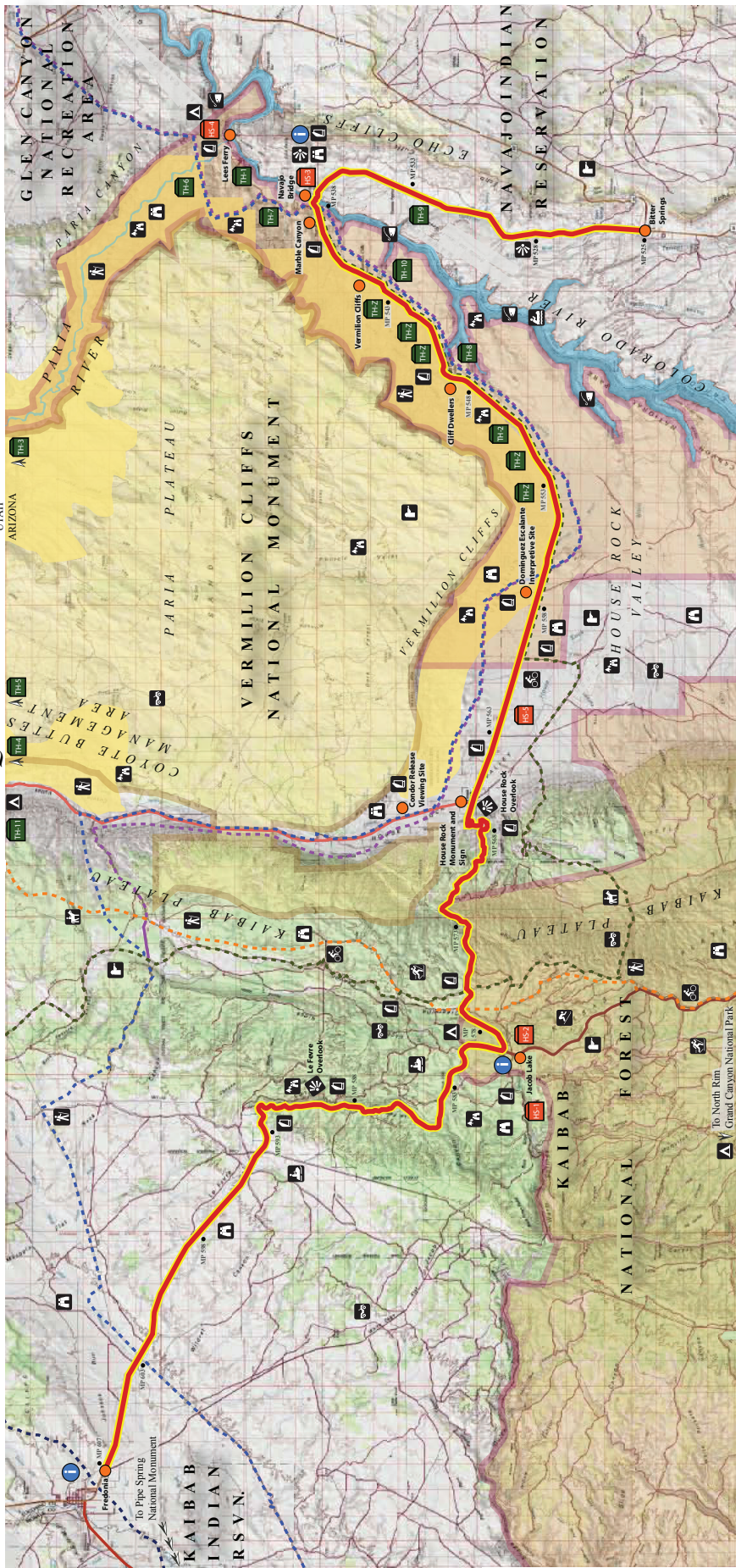


Map Legend

Navajo Indian Reservation	Vermilion Cliffs National Monument	Restrooms
Bureau of Land Management	State Route 67	Lodging
National Forest	State Route 389	Dining
National Park Services (Glen Canyon National Recreation Area)	House Rock Valley Road	Private Airport
State	Key Locations	Milepost
	National Forest Wilderness	



Fredonia-Vermilion Cliffs Scenic Road
Intrinsic Qualities



Map Legend

	U.S. Highway 89A		State Route 67		Visitor Center		Off-Road vehicle		Trailhead		Historic Structures
	Rivers		State Route 389		Fishing		Cross-country skiing		1 - Sun Valley Mine		1 - Sun Valley Mine
	Paria Canyon - Vermilion Cliffs		House Rock Valley Road		Rafting		Snowmobile		2 - White House		2 - Jacob Lake Lookout Tower
	Wilderness Area		Arizona National Scenic Trail		Hiking		Wildlife viewing		3 - Navajo Historic Bridge		3 - Navajo Historic Bridge
	Kane Ranch		Great Western Trail		Biking		Geological / Scenic viewing		4 - White House (44 miles from Lees Ferry, Utah)		4 - White House
	Two Mile Ranch		Honeymoon Trail/Hopi-Paiute Trail		Camping		Panoramic view		5 - Antelope Canyon (107 miles from Lees Ferry, Utah)		5 - Kane Ranch Headquarters
			Dominguez Escalante Trail		Hunting		Exhibit		6 - Pinta Canyon		
			Old Spanish Trail		Horseback riding				7 - Jackson Canyon		
									8 - Soap Creek, Maricopa Canyon Access		
									9 - Antelope Canyon		
									10 - Arizona Trail		
									11 - Arizona Trail		
									12 - "Z" Gates		

