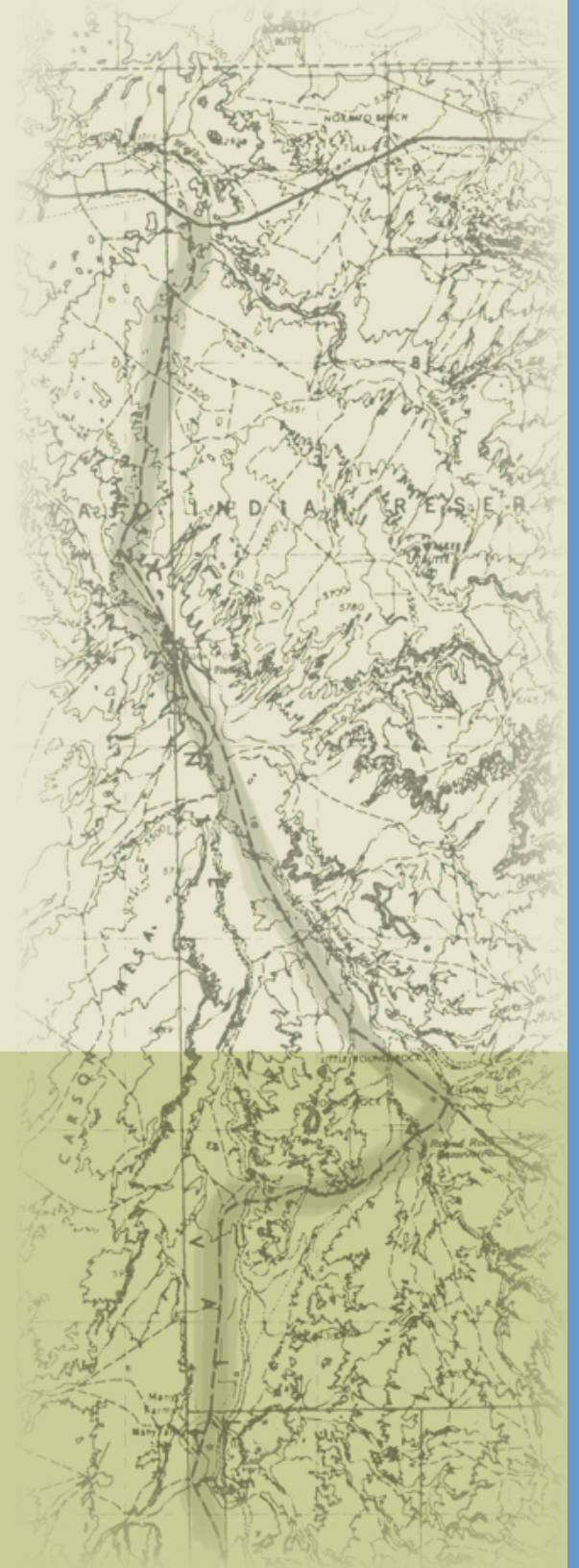


TSE'NIKANI

Scenic Byway Corridor Management Plan DRAFT

August 2013



INTRODUCTION

Tse'nikani Scenic Byway was established as an Arizona Byway in 2005 and given the name Tse'nikani 'Flat Mesa Rock' Scenic Byway.

Byway Description

Tse'nikani Scenic Byway, U.S. Highway (US) 191 is located in northeast Arizona in Apache County and entirely within the Navajo Nation. The portion of US 191 that is a designated Arizona Scenic Byway is from Milepost (MP) 467.0, south of Many Farms, to MP 510.4, at the junction with US 160, near Mexican Water. The highway is the primary route to access Canyon de Chelly National Monument, about 13 miles south of the south end of the byway.

US 191 is a two-lane asphalt paved road for almost its entire length with no median and few left-turn lanes. The roadway is managed by the Arizona Department of Transportation (ADOT) through the Navajo Nation. Four chapters adjoin the road: Many Farms, Round Rock, Rock Point, and Mexican Water. Chapters are the smallest political unit of the Navajo Nation government system. Each of the four chapters has a small community based on or near the byway.



Purpose

The purpose of a byway corridor management plan is not to create more regulations or taxes. Rather, a corridor management plan documents the goals, strategies, and responsibilities for preserving and enhancing the byway's most valuable qualities. Promoting tourism can be one target, but so are issues of safety or preserving historic or cultural structures.

The Corridor Management Plan can:

- ◇ document community interest
- ◇ document existing conditions and history
- ◇ guide enhancement and safety improvement projects
- ◇ promote partnerships for conservation and enhancement activities
- ◇ suggest resources for project development and programs
- ◇ promote coordination between residents, communities, and agencies
- ◇ support application for National Scenic Byway designation

ADOT sponsored the preparation of the draft Tse'nikani Corridor Management Plan.

Scenic Byways and the Corridor Management Process

Scenic byways may be many things - they don't have to be pristine, naturally beautiful roads that stretch for miles. A byway may have historic or cultural significance or be a major recreation destination or a short, urban section with a rich history. What scenic byways share is being a special resource that a community wants to preserve. Arizona has 27 scenic byways - 19 roads, 4 parkways, and 4 historic roads.

Local, state, tribal, and federal agencies or the private sector can request scenic designation for their special road. However, to apply for national designation, a byway must have state or tribal designation. A byway must also have a corridor management plan. The corridor management plan is a written document. It should be a plan for balancing development, tourism, conservation, and economic development. The plan will not solve every problem or issue identified, but it will suggest methods for solving some of them.

The corridor management planning process is a grass roots effort that comes from the community. There should be a public participation process that reaches as many interested citizens as possible. Long-time residents are a valuable source of information for the planning process. A stakeholder or steering committee made up

of local residents should be set up as part of the plan. This committee will see that action items in the plan are carried out.

Obtaining National Scenic Byway Designation

The National Scenic Byway program was established in 1991 and reauthorized in 1998. Since 1991, 125 byways in 44 states have been designated as a Scenic Byway or All-American Road. Arizona's first national scenic byway was the Kaibab Plateau-North Rim Parkway. In 2005, Arizona received four more nationally designated roads - three byways (Historic Route 66, Coronado Trail, and Sky Island) and one All-American Road (Red Rock).



To obtain National Scenic Byway designation a route must, 1) be a state or tribal designated byway, 2) have one or more of six intrinsic qualities (as defined by the National Scenic Byways Program and described later in this document), 3) show that there is community support for designation, and 4) have a corridor management plan. To be considered for All-American designation, a byway must have multiple intrinsic qualities that are nationally significant. They must also have one-of-a-kind features that do not exist

elsewhere. Additionally, the byway must be considered a "destination unto itself" - travelers will make the experience of driving along the byway a primary reason for a trip.

The national application process occurs every two years in the spring. Applications are sent to the National Scenic Byway committee for review. Those byways selected are announced in the fall. The best of the best scenic roads are selected to be All-American Roads, which is a rare designation.

The benefits of national designation can include:

- ♦ increased tourism dollars
- ♦ federal and state funding for projects in the Corridor Management Plan
- ♦ protection for threatened resources
- ♦ increased highway maintenance budget
- ♦ resources to help assist in managing the corridor

Some communities go through the corridor management planning process and decide that they don't want to go for national designation. It may be that they are not interested in promoting more tourism or there is not enough local support to continue the corridor planning process. This is also a viable outcome of preparing a corridor management plan and the community still has a guiding plan for what they would like to have happen along the corridor.

EXISTING CONDITIONS

Facilities and Services

Tse'nikani Scenic Byway has limited visitor attractions and services. There are no hotels or restaurants along the route. Restrooms, gasoline, and snacks can be found at convenience stores in Rock Point and Many Farms. The closest visitor facilities are in Kayenta, about 40 miles to the west on US 160; these are listed below.

Lodging

Lodging in Kayenta includes:

- ♦ Best Western Wetherill Inn, Kayenta; 54 rooms.
- ♦ Holiday Inn, Kayenta; 160 rooms.
- ♦ Hampton Inn, Kayenta; 73 rooms.

Restaurants

There are several small restaurants and fast-food outlets in Kayenta.

Public Restrooms

There are no state highway rest areas along Tse'nikani Scenic Byway. Travelers must go to Kayenta to find facilities.

Traffic and Safety

Tse'nikani Scenic Byway is a highway in Apache County, Arizona that runs from MP 467.0, south of Many Farms, to its junction with US 160 highway. It is a winding, primarily north-south road with changing grades, with one west to east section from MP 469.0 to 478.0.

Road Classification

Tse'nikani Scenic Byway serves as a rural major collector per the Federal Highway Administration (FHWA) March 2005 Approved Federal Functional Classification. The highway passes through Round Rock, Rock Point, and provides access to Emmanuel Mission, Red Valley, Sweetwater, and Cove.

Tse'nikani Scenic Byway is a two-lane, asphalt roadway from MP 467.0 to MP 510.4. The paved roadway is approximately 24 feet wide with roadway edge line and center line pavement striping. The pavement has crack sealing and small sections at multiple locations along the study segment have been resurfaced.

The roadway functions as free flow for traffic with 65 mph posted speed limit and no traffic control from MP 467.0 to MP 471.6 and from MP 472.2 to MP 477.8. The speed reduces to 55 mph as the highway traverses over winding curves

between MP 471.6 and 472.2. The highway changes direction to the north towards US 160 at MP 477.8 near Round Rock. This junction is a T-intersection with stop signs on the north bound Tse'nikani Scenic Byway traffic. The speed is reduced to 45 mph and stop ahead warning signs are placed with transverse ground-in rumble strips to warn drivers as they approach the stop controlled intersection. US 191 resumes the posted speed limit of 65 mph after MP 478.1.

There are pedestrian advance crossing and school advance warning signs along the byway in Rock Point. There are turn lanes in some sections of Tse'nikani Scenic Byway in Rock Point, between MP 494.0 and MP 495.0.



The view from the pass near Milepost 472.0

Traffic Data

In 2007, ADOT reported the average annual daily traffic (AADT) along Tse'nikani Scenic Byway was 1,400 between MP 461.7 to MP 477.9 and 1,000 between MP 477.9 and MP 510.3. The projected average daily traffic (ADT) for the year 2030 is 4,100 per the ADOT Arizona Statewide Travel Demand Model (September 2008, draft). According to Highway Performance Managements Systems 2005, the highway presently has a daily truck percentage of four percent single-unit trucks and five percent multiple-unit trucks.

The Florida DOT *Quality Level of Service (LOS) Handbook* defines LOS criteria based on ADT on highways. *Table 1* summarizes the LOS criteria from the 2002 FDOT *Quality LOS Handbook*. Based on this LOS criterion, Tse'nikani Scenic Byway experiences a LOS A for year 2007 and is LOS A approaching LOS B for year 2030 forecasted traffic volumes.

Crash Data

Crash data for Tse'nikani Scenic Byway between MP 467.0 to MP 510.4 was obtained from ADOT Traffic Records Section; the

data is obtained for the study period from June 2004 to February 2007. A summary of crash statistics along the byway for the study period is as follows:

- ◊ A total of 22 crashes were recorded during the study period.
- ◊ There were four (18 percent) fatal crashes, six (27 percent) injury crashes, and 12 (55 percent) property damage only crashes.

Table 2 summarizes the factors contributing to the fatal crashes.

- ◊ There were 15 single vehicle crashes, three angle crashes, two head on crashes, and two crashes were reported due to sideswipe in opposite direction.
- ◊ There were seven crashes due to speeding too fast for conditions, three crashes due to driver inattention, four crashes due to improper driving, two crashes due to driving in opposing lane, two crashes due to running stop sign, and four crashes were due to other/unknown driver behavior/violations.

Table 1: Level of Service for Rural Areas with Population Less Than or Equal to 5,000

Lanes	Divided/ Undivided	A	B	C	D	E
2	Undivided	2,600	5,300	8,600	13,800	22,300
4	Divided	17,500	28,600	40,800	52,400	58,300
6	Divided	26,200	42,800	61,200	78,600	87,400

Source: Quality Level of Service Handbook, FDOT, 2002

Table 2: Contributing Factors for Fatal Crashes

Severity	Light Condition	Manner of Collision	First Harmful Event	Driver Physical Condition	Violations/Behavior
Fatal	Darkness	Single Vehicle	Collision w/unknown	Unknown	Unknown
Fatal	Daylight	Single Vehicle	Overturning	Had been drinking	Speed too fast for conditions
Fatal	Daylight	Single Vehicle	Overturning	Had been drinking	Unknown
Fatal	Darkness	Single vehicle	Overturning	Had been drinking	Speed too fast for conditions

Source: Quality Level of Service Handbook, FDOT, 2002

- ◇ There were eight crashes due to overturning, seven crashes from collision with other motor vehicle, three crashes from collision with fixed object (like fence, guard rail, and other fixed objects), and four crashes resulting from other factors. The first hazard encountered by the initial vehicle in the crash is termed as the first harmful event.

The roadway mainly drains as sheet flow to the adjacent land. Chinle Wash, Lukachukai Wash, and Agua Sal Creek intersect Tse'nikani Scenic Byway. There are small concrete structures with barriers where the creeks cross under the road.

There are multiple locations for cars to pull over along US 191 (MP 474.5, MP 479.6, MP 481.6, MP 481.9, MP 482.4, MP 483.9, and MP 510.4).

Local and Regional Transit Systems

According to *Transit and Intercity Bus Analysis* provided by Arizona Department of Transportation, the intercity operator within the Tse'nikani Scenic Byway area is the Navajo Transit System. Tse'nikani Scenic Byway would serve as a feeder route by year 2025, connecting chapters to the Regional Transportation Hubs, per Navajo Long Range Transportation Plan, 2003. Feeder routes offer multiple transit stop service.

According to the ADOT *Arizona Rural Transit Needs Study*, only 18 percent of ridership needs are being met in rural Arizona leaving the majority of ridership needs unmet, particularly on tribal lands. ADOT has developed a strategy for implementing improved rural transit service to meet growing demand in non-urbanized areas by identifying areas with the most need for transit expansion (Northern Framework Study, 2008).

Rural transit in Northern Arizona is widely dispersed because Arizona, particularly in the north, has a high percentage of federal and Native American land holdings with land use restrictions. Other problems facing the development of rural transportation in Northern Arizona include funding, logistics/coordination, political support, and information. The majority of fixed-route transit services are available from larger cities such as Flagstaff, Prescott, and Sedona. These services provide connections to the other large cities or regional nodes of activity. The most common type of transit in the region is demand-response and/or paratransit (Northern Framework Study, 2008). *Table 3* shows the transit services available in the Tse'nikani Scenic Byway area.

Table 3: Local and Regional General and Special Needs Transit Services

Name of Transit Service	Type	Area of Service
Navajo Transit	Fixed Route Paratransit	Navajo Nation (and region)
Hopi-Senom Transit	Fixed Route Paratransit	Hopi Community

Source: Northern Framework Study, 2008

Existing Programs and Projects for Transportation and Traffic Safety

Currently, there are many programs in place to address transportation and traffic safety for Tse'nikani Scenic Byway. These existing programs can offer an opportunity to ensure a balance between transportation issues and traffic safety along the roadway and preservation of the Scenic Byway's intrinsic qualities.

ADOT Projects

Current

There are currently no active ADOT projects along the corridor.

Future

- ◇ Construct a three-lane urban section along with right-turn lanes for a length

of 1 mile starting from MP 494.0, as identified by the Holbrook District.

- ◊ Add paved shoulders to meet the AASHTO standards and to accommodate bicycles. This includes the installation of edge line rumble strips (US 191 Multimodal Corridor Profile Study, September 2000).
- ◊ Entire corridor on US 191 from I-40 to Junction US 160 – install delineators along shoulder (US 191 Multimodal Corridor Profile Study, September 2000).
- ◊ Entire corridor on US 191 from I-40 to Junction US 160 – install center line rumble strips on two-lane sections (US 191 Multimodal Corridor Profile Study, September 2000).

ADOT Program & Project Management Section Active Project Status Report

ADOT's Program and Project Management Section puts together an Active Project Status Report that reflects all of the active projects for the entire state highway system. There are two upcoming projects (2014) for the Tse'nikani Scenic Byway included in this report, which is located on the ADOT Web site: <http://www.azdot.gov/Highways/PPMS/psl/apsrwhole.pdf>. The projects are a pavement project at Milepost 482 and a fence replacement at Milepost 477.9.

Vision 21 Task Force

Vision 21 Task Force was established by Governor Jane Dee Hull in 2000 to address such issues as statewide long-range planning and programming decisions, land use planning, and financial management. The Vision 21 Task Force Final Report is located on the ADOT Web site: http://www.azdot.gov/ADOT_and/Vision21/Reports/Final.asp.

ADOT Adopt-A-Highway Program

ADOT encourages volunteer groups and organizations to participate in their Adopt-a-Highway program. Groups who adopt a designated portion of the highway remove garbage and other debris within ADOT's right-of-way on a seasonal basis. The Tse'nikani Scenic Byway has several volunteer groups participating in the Adopt-a-Highway program. The segments being actively maintained are in one- or two-mile increments, and can be identified by the sponsoring organization's name posted on the "Adopt-A-Highway" signs, generally located at full milepost locations. More information is located at: <http://www.azdot.gov/highways/adoptahwy/index.asp>.

ADOT Bicycle and Pedestrian Program

ADOT has developed a Bicycle and Pedestrian Program to provide a wide variety

of resources and information about biking and walking in Arizona, including places to bike and walk, how to integrate biking and walking into commutes, important laws and policies, safety issues, maps, and organizations. The Arizona Statewide Bicycle and Pedestrian Plan provides a long-term plan for a statewide system of interconnected bicycle facilities that provides a guide for ADOT transportation decisions relating to bicycle and pedestrian travel, planning, and facility development. Additional information is located at: <http://www.azbikeped.org>.

ADA Accessibility

Many of the current amenities are not accessible per the Americans with Disabilities Act (ADA). The goal of any future facilities will be to make them accessible per the ADA Accessibility Guidelines.

Utilities and Signs

Utilities

Utilities, including electricity, water, natural gas, wastewater treatment, and photovoltaic (solar power) are provided by the Navajo Tribal Utility Authority (NTUA), a non-profit enterprise established by the Navajo Nation Council. Since 1959, NTUA has supplied services to

residents throughout the Navajo Nation. Telephone service is provided by Frontier Communications.

Signs

Signs along Tse'nikani Scenic Byway are limited. There are roadway signs such as milepost signs, traffic directional signs, and Arizona Scenic Byway signs at the beginning, end, and midway. There are a few scattered billboards along the byway that advertise the chapter houses that are adjacent to the road.

Topography and Features

Tse'nikani Scenic Byway is located in northeastern Arizona in the heart of the Navajo Nation, the largest Indian reservation in the United States covering some 27,635 square miles (NAU, 2005). The area is part of the Colorado Plateau, a physiographic "province" or region geologically and topographically distinct from other parts of the West. The Colorado Plateau is a huge basin ringed by highlands and filled with plateaus. Unlike the Basin and Range Region to the west or the Rocky Mountains to the east, this area has remained relatively stable. The land mass of the Colorado Plateau is likely more than 500 million years old (Barnes, 1978).

The corridor averages 5,500 feet above sea level and is accessible almost year-round.

Environmental

Biology

This area is often referred to as a cold desert. Tse'nikani Scenic Byway passes through two biotic communities as defined by David E. Brown in *Biotic Communities: Southwestern United States and Northwestern Mexico*. They are Plains and Great Basin Grassland and Great Basin Desertscrub, shown in the Biotic Communities figure on Page 8.

Flora

Plains and Great Basin Grassland (MP 467.0 to MP 471.0 and MP 487.0 to MP 510.0)

This grassland community is predominantly flat and open country. The elevation ranges between 5,000 and 7,000 feet. This is an area known for strong winds and high solar radiation. Historically, this area was grasslands composed of mixed or short-grass communities. Grazing and fire suppression has altered this landscape, but it is still mostly dominated by perennial grasses. The principal species are blue grama (*Bouteloua gracilis*) and other gramas (*Bouteloua* sp.).

Other important species are buffalo grass (*Buchloe dactyloides*), Indian rice grass

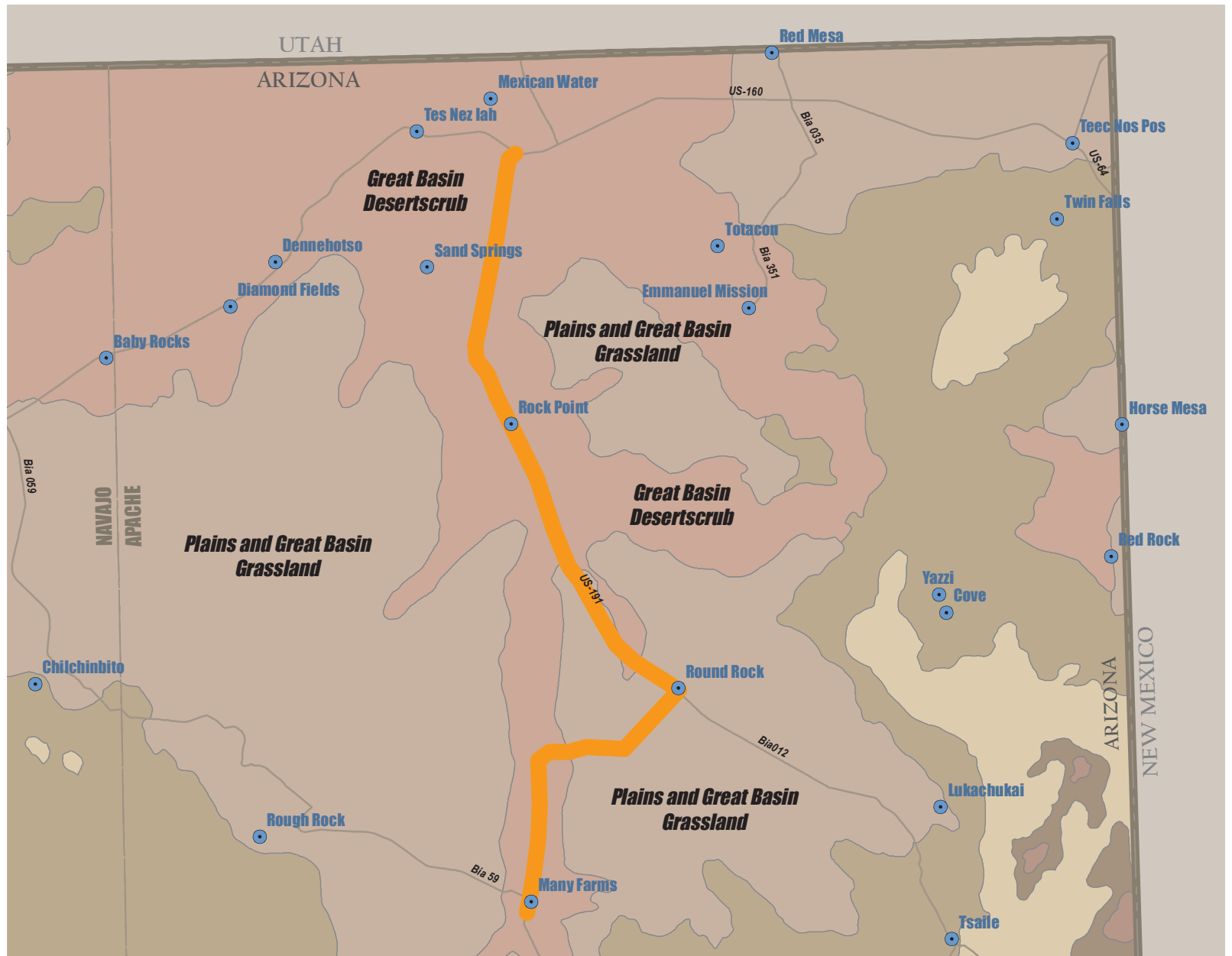
(*Oryzopsis hymenoides*), galleta grass (*Hilaria jamesii*), prairie junegrass (*Koeleria cristata*), plains lovegrass (*Eragrostis intermedia*), vine mesquite grass (*Panicum obtusum*), wolftail (*Lycurus phleoides*), and alkali sacaton (*Sporobolus airoides*).



Plains and Great Basin Grassland

Great Basin Desertscrub (MP 471.0 to MP 487.0)

Great Basin Desertscrub usually occurs between the elevations of 4,000 and 6,000 feet. It is generally dominated by cold-adapted sagebrush and saltbush. Species diversity is low. The landscape tends to be dominated by one species, almost to the exclusion of any other. The dominant plants are sagebrush (*Artemisia* sp.), saltbush (*Atriplex* sp.), winterfat (*Ceratoides lanata*), rabbitbrush (*Chrysothamnus* sp.), blackbrush (*Coleogyne* sp.), hopsage (*Grayia* sp.), and horsebrush (*Tetradymia*



Biotic Communities

TSE'NIKANI Scenic Road Corridor Management Plan



Great Basin Desertscrub

sp.). There are a few cacti including cholla (*Opuntia* sp.), prickly pear (*Opuntia* sp.), and hedgehog (*Echinocereus* sp.).

Fauna

The list of wildlife that might be seen in the area is extensive. The following species are the predominant species.

Plains and Great Basin Grassland (MP 467.0 to MP 471.0 and MP 487.0 to MP 510.0)

Small Mammals: Prairie dog, ground squirrel, swift fox, plains pocket gopher, and plains harvest mouse.

Birds: Prairie chicken, upland sandpiper, mountainplover, lark bunting, grasshopper sparrow, long-billed curlew, meadowlark, prairie falcon, and burrowing owl.

Snakes and Lizards: Bullsnae, corn snake, western coachwhip, western plains milksnae, and prairie rattlesnae. Plains spadefoot, great plains toad, earless lizard, southern prairie lizard, great plains skink, prairie-lined racerunner, western box turtle, plains hognose snake, prairie ringneck snake, great plains ground snake, and plains blackhead snake.

Great Basin Desertscrub (MP 471.0 to MP 487.0)

Small Mammals: Townsend's ground squirrel, dark kangaroo mouse, sagebrush vole, pallid kangaroo mouse, chisel-toothed kangaroo rat, coyote, and black-tailed jackrabbit.

Birds: Sage thrasher, sage sparrow, and sage grouse.

Snakes and Lizards: Sagebrush lizard, great basin spadefoot toad, leopard lizard, collared lizard, northern side-blotched lizard, northern desert horned lizard, great basin and northern whiptails, great basin and northern plateau fence lizards, great basin gopher snake, western garter snake, and the great basin and Hopi rattlesnakes.

Although there are no federally listed threatened and endangered species in the Tse'nikani Scenic Byway corridor, there are a number of Navajo Nation Endangered Species and some more commonly occurring animals. This is a big landscape and the animals that make their home here

are highly adapted to their surroundings; therefore, it takes patience, keen powers of observation, and a little luck to catch a glimpse of these creatures.

The Navajo Nation maintains a list of Endangered Species occurring within the entire Navajo Nation. Included on this list and possibly living in the Tse'nikani Scenic Byway corridor are the ferruginous hawk, the peregrine falcon, and the American pronghorn.

The ferruginous hawk is the largest hawk in North America with a wingspan of up to 54 inches. The hawk gets its name, ferruginous, from its red coloration, like rusty iron (ferrous) (United States Geological Survey, 2004). The hawk can be seen in the corridor hunting rodents such as rabbits and mice.

The peregrine falcon often nests in the high sandstone buttes of the area. The peregrine is the fastest bird on record, reaching horizontal cruising speeds of up to 68 mph. When swooping for prey, the peregrine flies at much greater speeds, varying from 99 to 273 mph (Smithsonian, No Date).

In addition to the world's fastest bird, the Tse'nikani Scenic Byway corridor is also home to the second fastest land animal in the world and the fastest in the Western Hemisphere, the Pronghorn (Desert USA, 2005). Pronghorn inhabit the sagebrush



Ferruginous Hawk



Peregrine Falcon

communities of the Great Basin (as well as grasslands in other parts of the state) feeding on these small shrubs. The pronghorn have developed keen eyesight and tremendous speed to evade predators in this typically wide-open habitat. The agile pronghorn

can run from 30 to 40 mph for over 7 miles at a time, and can leap 20 feet in one jump. Animals have been clocked at speeds of 60 mph for short bursts.

A variety of more common wildlife make their home along the corridor, including the usual rodents, rabbits, mule deer, coyote, snakes, and insects associated with this desert region.

Hydrology

Tse'nikani Scenic Byway lies within the Plateau Planning Area, as defined by the Arizona Department of Water Resources. The Plateau Planning Area is bounded by the Mogollon Rim on the south, Grand Wash Cliffs in the western Grand Canyon, Utah on the north, Nevada on the northwest, and New Mexico on the east.

Within the Plateau Planning Area, there are seven groundwater basins, including the Little Colorado River Plateau Basin, which cover 27,300 square miles and encompass the scenic byway corridor. The main surface drainage for the basin is the Little Colorado River watershed. There are several local and three regional aquifers associated with the basin, which saturate mainly sandstones and limestones. The local aquifers are important for providing domestic water.

The regional aquifers have poor water quality, suitable only for municipal and industrial use. Three regional electrical generating stations and a pulp mill are the main users of the regional aquifer water. These aquifers have large quantities of groundwater in storage. However, excessive withdrawals of this groundwater may cause stream dry up in the perennial reaches of the system. This is due to a close connection between the groundwater and the Little Colorado River.

Surface hydrology in the area is part of the larger Colorado River watershed and supplies the Little Colorado River Plateau Basin. The majority of the surface streams that supply the Little Colorado River Plateau Basin are ephemeral or intermittent. There are nine streams that exhibit perennial flow that feed the watershed.

Water Features

Chinle Wash, Lukachukai Wash, Agua Sal Creek, and Black Mountain Wash intersect the byway corridor.

Off the byway at Many Farms Chapter is Many Farms Lake, at 25,000 acre-feet one of the largest lakes within the Navajo Nation.

Climate

Temperatures range from average lows in the 30s during winter to averages in the 70s

during summer. July is the warmest month with an average maximum near 93 degrees, while January is the coldest month with an average minimum temperature of 20 degrees.

Annual average precipitation is about 9.5 inches. Precipitation is fairly evenly distributed throughout the year with August being the wettest month.

National Natural Landmarks

National Natural Landmarks (NNL) are the best examples of biological and geological features in the country and representative of the nation's natural history. NNLs are designated by the Secretary of the Interior and administered by the National Park Service (NPS). To date, less than 600 NNLs have been designated in the United States and less than ten in Arizona (NPS, 2004). There are no NNL's along Tse'nikani Scenic Byway corridor.

Land Use

Land use is directed by land use groups for each chapter.

The majority of the Tse'nikani corridor can be characterized as vacant desert with occasional scattered residences and grazing land.



Grazing livestock are commonly seen along the roadside.

Commercial land uses are primarily convenience stores, located at Many Farms and Rock Point.

BYWAY STORY

The study area falls within the boundaries of the Navajo reservation. This region has a long, continuous progression of human occupation and use that dates back over 10,000 years. Although regionally specific cultural chronologies vary widely across the area, particularly for the later phases of development, general trends of human adaptations can be summarized into five main periods of cultural development. The following summary is largely paraphrased from cultural resource reports completed in the area (Brodbeck 2003; Morrison 2002; Sandoval 2002; Spalding 1992).

History

Paleoindian Period

The Paleoindian period dates to the end of the Pleistocene and early Holocene (ca. 9500 to 7000 B.C.) and marks the earliest human occupation in northeast Arizona. Subsistence during this period appears to have been focused primarily on hunting of megafauna, such as the now-extinct herbivores, the mammoth, and the bison (*Bison antiquus*). The proportion of subsistence from plant foods is unknown due to the fact that this early time period is known primarily from kill sites and isolated occurrences. The Paleoindian people likely lived in small bands and traveled over large distances to exploit different resource areas.

Archaic Period

Although the Archaic period, from ca. 7000 to 1200 B.C., is the longest defined period of prehistory in the Southwest, it is the least understood. The Archaic period is characterized by a climate change in the postglacial era and a subsistence shift to a more generalized economy of processing plant foods and hunting small game. A key marker of this subsistence shift is the presence of shallow basin metates/slab metates and one-handed manos for seed processing found throughout the

Southwest at 6500 to 6000 B.C. (Huckell 1996; Morrison 2002). The period is typically divided into three phases: the Early Archaic (ca. 7000 to 5000 B.C.), the Middle Archaic (ca. 5000 to 2500 B.C.), and the Late Archaic (ca. 2500 to 1200 B.C.).

Early Agricultural Period

The term Early Agricultural was proposed by Huckell (1995) to differentiate it from the Archaic period, during which there were no cultigens. During the Early Agricultural period, cultigens were present but ceramics were not yet used. On the Colorado Plateau, the last pre-ceramic culture was defined as Basketmaker II in the early part of the 20th century, based on excavations in caves and rock shelters (Kidder and Guernsey 1919).

The boundary between the Archaic period and the Early Agricultural period is fluid because the chief defining principle, the presence and spread of cultigens, was a gradual, spotty process. The Early Agricultural period (ca. 1200 B.C. to ca. A.D. 500) represents an economic shift from broad-spectrum gathering and hunting to increased reliance on the cultivation of cultigens such as corn and squash (Huckell 1996). Accompanying this economic shift were social transformations such as decreased mobility, population growth, and greater population density, which in turn resulted in the construction of relatively

substantial houses, storage facilities to maximize agricultural potential, and an increased use of grinding tools.

Formative Period

The Formative period (ca. A.D. 500-1300) is characterized by a strong reliance on agriculture, permanent or semi-permanent habitations, and pottery production.

The term formative is used in the same sense as it is used in Mesoamerica, to designate this temporal era as the time during which agriculture and pottery became important and larger settled communities became more numerous. The Formative period is traditionally divided into five developmental periods: Basketmaker III and Pueblo I, II, III, and IV.

The Basketmaker III period (A.D. 500-750) is characterized by trends of increased sedentism and greater reliance on agriculture. Pithouses increase in size and sometimes are aggregated into villages occupied year round. Other developments include the introduction of bow and arrow and ceramic technologies and the domestication of turkeys (Gumerman 1984). Ceramics consist of plain gray wares, sometimes decorated with simple black designs. Slab-lined pits are also common.

In the Pueblo I period (A.D. 750-900), the use of pithouse architecture continues but

people also begin to construct above ground structures (Gumerman 1984).

Settlements were more organized, often consisting of a series of rooms facing a kiva, or ceremonial room. Population generally increased but settlements remained dispersed. Black-on-white and neck-banded gray pottery were introduced and a trend toward more standardized pottery production has been noted (Cordell 1984).

In the Pueblo II period (A.D. 900-1150), populations increased dramatically (Euler 1988; Gumerman 1984) and settlements generally consisted of homesteads of individual unit pueblos, typically with surface masonry and subterranean ceremonial structures. Ceramic types continue to become more regionally diversified as decorative elaborations are enhanced. Toward the end of the period a trend of aggregation into larger villages had begun.

The Pueblo III period (A.D. 1150 to 1275) is marked by a dramatic reorganization of social and cultural forms and the initiation of abandonment of some areas. Fewer pueblos were constructed during this period but there were larger plaza-oriented communities. Settlement patterns shifted to a more sparsely settled landscape punctuated by larger settlements.

Finally, the Pueblo IV (A.D. 1275-1400) period represents the final stage of the Formative Period's developmental sequence. This time span represents the culmination of wide scale population movements, the abandonment of many areas, and the transition to large, aggregated settlements. By the end of the 15th Century, settlements were concentrated on the Hopi Mesas and Zuni Pueblo areas.

Historic Period

For purposes of this study, the Historic Period represents the final major developmental era for the region, which occurred from the end of the Formative Period to the present. During this time, dramatic changes in social and cultural development occurred as new groups entered and settled the area. By the end of the Formative period, Puebloan settlement had restricted with the Hopi occupation centered on the Hopi Mesas. Athabaskan groups began migrating into the area and competing with Puebloan groups. This progression culminated with the establishment of permanent Navajo settlements in northeastern Arizona and Apache settlements farther to the south.

The period between A.D. 1541 and 1821 is marked by the Spanish incursion into the region, which entailed processes of exploration followed by colonization that had devastating impacts to the traditional

lifeways of Native American groups throughout the Southwest. The region was ruled by Mexico from 1821 and 1846. The American period extends from 1846 to present. The Navajo reservation was established in 1868. Although the original 1868 boundaries were a small part of the pre-reservation homeland, the land base expanded over the years through presidential executive orders and acts of Congress to its present size (Linford 2000).

The history of the Tse'nikani Scenic Byway is that of the American West. The Navajo's presence in this region extends back hundreds of years. Today their history, intertwined with the early Spanish and Mexican incursions into the area, as well as the frontier period, provide many rich stories for visitors to explore.

This history lives on with the Navajo people, for while many residents work and live "modern lives," the traditions passed down for generations are very much alive. Along Tse'nikani Scenic Byway, the traveler will still see local residents herding sheep, and the trading posts and vendor stands continue to offer the local arts and crafts that have been handed down for generations.

The region has never been strife free for the Navajo or other inhabitants, but in the historic past there has been no darker period

than the forced exile in the 1860s referred to as the "Long Walk" to Bosque Redondo. During the Civil War, Colonel Kit Carson pursued and rounded up 8,000 Navajos and forced them to walk more than 300 miles to Bosque Redondo, a desolate tract on the Pecos River in eastern New Mexico. Many died along the way, and many more died during the four years they were held there. When the Government relented, the Navajo returned to this area.

During this period, Chief Manuelito established himself as a courageous defender of his people. Manuelito was the last of the Navajo leaders to surrender to reservation life. Manuelito was an influential leader and spokesperson for the Navajo. He signed numerous treaties on behalf of his people.

From 1868 to the 1930s, Navajos raised livestock and crops (Kelley and Francis 1994). Their lifestyle during this period was greatly influenced by the influx of merchants across the reservation. These merchants set up trading posts, many located along wagon roads or near crossroads. They supplied essential commodities oftentimes extending credit for necessary goods such as sugar, flour, coffee, and blankets in exchange for items such as wool, sheep, hides, pinons, and textiles. Although early American exploration and settlement of the region began as early as the 1700s, immigration into the area accelerated dramatically with

the establishment of the Atkinson Topeka & Santa Fe Railroad's transcontinental line across the 35th Parallel in 1881 (Eddington and Makov 1995).

The Navajo Tribal Council, which the federal government set up in 1923 to sign oil leases, reorganized and grew in 1937. A shift from stock raising and farming to employment under federal and tribal governments and in oil, gas, coal, uranium, and electrical power industries occurred. Many Navajos live and work in reservation government centers and elsewhere (Kelley and Francis 1994).

There are many opportunities along the Corridor to discover the more recent past. Following the repatriation of the Navajo to their land, there was still great interest in the area by "white men." In the early part of the twentieth century, settlers set up trading posts to provide goods to the local people.

Present Day

Today, the study area consists of mostly undeveloped high desert. Sporadic housing, both modern varieties and traditional hogans, shade houses or ramadas, and various corrals are visible from the highway. A few isolated houses are equipped with solar panels.



A typical hogan

Desert farming in the form of small family garden plots is evident throughout the area. Small earthen dams and windmills are present. In addition to farming, the land is also used for grazing. Livestock (cattle, horses, sheep) are abundant throughout the area.

Chapters

There are 110 chapters in the Navajo Nation. Chapters serve as the local government agency for the Navajo Nation. Tse'nikani Scenic Byway passes through four of these chapters: Many Farms, Round Rock, Rock Point, and Mexican Water. Following is a short description of each chapter.

Many Farms

Dá'ák'e Halani (Many Farms) encompasses 3.9 square miles. The major employers are

Chinle Boarding School and Many Farms High School, which are consolidated in one compound. The Many Farms community began emerging in 1937 around Many Farms Lake, a manmade lake created for irrigation (Rogers 2004).

Round Rock

Tsé nikani (Flat Mesa Rock or Flat Plated Rock) covers 4.8 square miles. Round Rock is also known as Bis Doolizh Deezahi (blue pointed mesa). Tsé nikani is to the west of the community; Bis Doolizh Deezahi is to the south. Most of Round Rock's residents live in the rural areas surrounding the community buildings. One of the oldest operating Navajo trading posts is located in Round Rock; it was established in 1887. Round Rock also has a small lake (Rogers 2004).

Rock Point

Tsé nitsaa Deez'áhi (Large Rock Protruding) encompasses 3.2 square miles. Rock Point Community School and Red Mesa School District are the major employers. There are nine springs and artesian wells in the area, and 13 working windmills. The community's first name, Beesh ii ani (standing metal) was based on an existing windmill (Rogers 2004).

Mexican Water

Naakaii tó (Mexican's Watering Point), with 808 members in 2000, is one of the smaller chapters. It encompasses 3.7 square miles. The legend of the name is that three Mexicans, on their way elsewhere, stopped here long enough to dig wells. The Mexican Water Store/Cafe and the Navajo Nation are the main employers (Rogers 2004).

PUBLIC PARTICIPATION

At the beginning of the project, the consultant worked with ADOT to identify key stakeholders for the Tse'nikani Scenic Byway. The result of this work was a preliminary stakeholder list that has been maintained and developed throughout the course of the project.

Meetings

Two public meetings were held. These meetings were used to determine what local residents desired for the future of the Scenic Byway and how to best preserve those intrinsic features that make the corridor so unique. The meetings were held in different locations for the convenience of the participants and to provide outreach to a larger segment of the community. Meetings

were publicized via newspaper and radio advertisements, fliers, and mailings.

Meeting 1

The first meeting was held on August 20, 2008 at the Round Rock Chapter Service Center. The objective of the first meeting was to introduce the project to the public and stakeholders, solicit information about the corridor, and gain support for the development of the plan.

At this meeting, attended by four people, participants discussed their wishes and worries for the Scenic Byway. A review of this list demonstrates the commitment of the group to making visitors' experience more enjoyable; provide safe, convenient pull-outs and rest stops with interpretative signs; increase amenities that reflect the local culture, such as bed and breakfast hogans; and increase recreational and cultural opportunities.

Numerous attractions and amenities were identified that make the Tse'nikani Scenic Byway a unique destination. At the conclusion of the meeting, participants were asked to indicate whether they would be interested in continuing their involvement by joining the Tse'nikani Scenic Byway Steering Committee.

Meeting 2

The second meeting was held at the Many Farms Chapter Service Center on January 21, 2009. At this meeting, attended by five people, an open discussion about the purpose of the corridor management plan ensued. The Vision Statement, written with input from the first meeting, was reviewed, as well as the goals and action items that had been identified thus far. The meeting attendees helped to further determine additional action items that could be added to the plan.

Questionnaires

In addition to the public meetings, an informational handout with attached questionnaire was developed. This was done in order to capture more input from the community with regard to how they would like to see the corridor in the future. The handouts were distributed to the Many Farms, Round Rock, Rock Point, and Mexican Water Chapter houses after the second scheduled meeting. In addition to gathering more community feedback, the handout was used to raise awareness of the project.

The questionnaire allowed for comment regarding the vision statement and action items for each of the goals. It also included a section where Navajo stories or history could be recalled in relation to one or more of the features found along the corridor. No questionnaires were returned to the chapters.

Radio

A radio spot was played on KTNN radio over a four day period in March 2009—two days in English, two days in Navajo. The intent of the radio spot was to provide information on the byways program and alert community members to the types of projects that are occurring in the Navajo Nation, including this corridor management plan.

Steering Committee

A Steering Committee was not formally established during the Plan process. A list of participants that expressed interest in the Steering Committee and/or the Corridor Management Plan is on file with the ADOT Scenic Byways coordinator. A suggested agenda for the first meeting of the Steering Committee is included in this report.

INTRINSIC QUALITIES INVENTORY

Today, the captivating and rich culture of the Navajo people continues to make this a destination for travelers the world over. And as common as it is to hear the Navajo language spoken today by local people, a visitor to the area is as likely to hear German or Japanese, evidence of the far reaching appeal of the region.

While the Navajo have so respectfully preserved this environment, they have also made it available to the visitor, and there is a vast array of activities here for those visitors.

It is because of the number of people that visit the corridor, the strong desire of the local residents to preserve the scenic beauty of the area, coupled with a desire for sensitive economic development that the Corridor Management Plan is being developed. By recognizing the intrinsic qualities of the corridor, actions can be taken to address issues raised by the local community and develop a proactive plan to ensure that these resources will be available for the enjoyment of residents and visitors today and for many years to come.

In order to preserve and enhance these resources, the Corridor Management

Plan sets out to document and help define strategies for the preservation and enhancement of the intrinsic qualities. This is done not only with the visitor in mind, but the people who call this region home and have been such good stewards of this national treasure for so long.

Intrinsic Qualities

The Scenic Byways Program recognizes and promotes six intrinsic quality values. Each of these values influences our experience, but together they create a synergistic experience that is greater than the sum of the parts. A comprehensive inventory and assessment of a corridor's intrinsic qualities includes the following six categories:

Natural Features - features of the visual environment in a relatively undisturbed state;

Cultural - experiences of traditions, beliefs, folklore, and art;

Historic - legacies of the past distinctly associated with physical elements of the landscape which educate and inspire appreciation for the history;

Scenic - a dramatic and memorable landscape of strikingly distinct character;

Recreation - outdoor recreation activities directly dependent upon the landscape's natural and cultural elements; and,

Archaeological - physical, visual evidence of prehistoric life or activity that can be inventoried and interpreted.

These qualities define the byway's character, interest, and appeal to area residents and visitors. Many of the qualities found along the corridor are identified in *Figure 1*.

Intrinsic qualities are considered regionally significant when the characteristics are representative of a geographic area encompassing two or more states. In order to be designated as a National Scenic Byway, at least one quality must be regionally significant. Two nationally significant qualities are required for designation as an All-American Road.

The basis for the Tse'nikani Scenic Byway's designation rests primarily in its natural, scenic, cultural, and recreational intrinsic qualities. The historic and archaeological qualities, although not as significant or visible, add to the richness and diversity of the corridor.

Natural

According to the National Scenic Byway Program, natural quality applies to those features in the visual environment that

are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landform, water bodies, vegetation, and wildlife. There may be evidence of human activity, but the natural features reveal minimal disturbances.

Tse'nikani Scenic Byway has many natural features, predominantly distinctive rock formations and distant mesas.

Cultural

Cultural quality is evidence and expression of a distinct group of people. These features can include crafts, music, dance, rituals, festivals, speech, food, special events, vernacular architecture, etc. The qualities found in the corridor could represent one or more significant communities and/or ethnic traditions.

Tse'nikani Scenic Byway has several cultural opportunities to share with visitors including crafts, rodeos, and the stories surrounding the many rock formations.

Historic

Historic quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or manmade, that educate the viewer through their historic significance.

Historic elements may include buildings, settlement patterns, and other examples of human activity. They provide detail about design, setting, material, and workmanship of past settlements.

Tse'nikani Scenic Byway has several historic features that could be shared with visitors and the local community including an old stone house near Rock Point.

Scenic

Scenic quality is the visual experience ensuing from the view of natural and manmade elements within the environment. All elements of the landscape - land formations, water, vegetation, and manmade development - contribute to this quality offering a memorable experience to those along the scenic byway.

The scenic qualities of the Tse'nikani Scenic Byway are addressed in the natural features section of this report, as they are synonymous in this region.

Recreation

Recreation quality involves those recreation activities directly associated and dependent with the natural and cultural elements of the corridor's landscape. These activities are often both passive or active forms of recreation and may be seasonal.

Tse'nikani Scenic Byway Corridor provides access to recreational pursuits. The high-desert environment with its scenic vistas, moderate climate, and open country afford ample opportunities for a host of activities including hiking, fishing, and camping. Partaking in some of these activities by non-Community members would require the guidance of a Community member.

Archaeological

Archaeological quality includes those characteristics of the corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried. Archaeological evidence seen through ruins, artifacts, and other structural remains can be a great way to educate the corridor user and capture their interest.

There are archaeological features throughout the Navajo Nation but these are most often kept undisclosed to the general public for reasons of privacy and security. There was one site, near Rock Point, that was mentioned as a possible location that could be shared with tourists.

Inventory

Following are descriptions of some of the features, many of which are mapped in the Intrinsic Qualities figure on Page 21.

Round Rock Lake

Round Rock Lake, near the junction of US 191 Navajo Route 12, has been noted for birding, especially for wintering birds. One year several swans were observed at the lake (Johnson 1998).

Round Rock Trading Post

Round Rock Trading Post is located on Lukachukai Wash at the junction of US 191 and NR12, about 6 miles east of the Round Rock butte. This post was cited as the first in the region by Van Valkenburgh. A small community, including a chapter house and a school, grew up around the trading post (Linford 2000).

Many Farms Lake

Many Farms Lake is located in the alluvial flats of Chinle Valley, at the juncture of US 191 and NR 59. The lake is an ephemeral sink on the east margin of the village of Many Farms and is fed by Sheep Dish Wash. It is one of the largest lakes within the Navajo Nation, containing over 25,000 acre-feet of water and related canals have water carrying capacity of 2,000 acre-feet per season.

At the lake, there are many recreational opportunities. There is boating, fishing, and hiking, as well as campgrounds provided near the lake. It is also one of the best

birding areas on the Reservation. Well over 200 species have been seen on or around the lake (Johnson 1998).

Rodeo at Round Rock Junction

Wheeler's Arena in Round Rock is the site of several rodeos during the year.

Central Navajo Fair

The annual Central Navajo Fair takes place in August in Chinle, 15 miles south of Many Farms. The festivities include several days of horse races and rodeo competitions, carnival, parade, arts and crafts market, traditional Navajo food, pow wow, Miss Central Navajo pageant, concerts, and 4-H exhibits.

VISION

Preserve and enhance the intrinsic qualities, telling travelers and residents the stories of the corridor and providing opportunities for economic benefit.

Table 4: Intrinsic Qualities

	NATURAL	CULTURAL	HISTORIC	SCENIC	RECREATION	ARCHAEOLOGICAL
FEATURES						
ROUND ROCK LAKE	X			X	X	
ROUND ROCK	X	X		X		
GIGANTIC BUTTES	X	X		X		
WHALE ROCK/DANCING ROCK	X	X		X		
GOSSIP ROCK/TWO TALKING ROCKS	X	X		X		
ROUND ROCK TRADING POST			X			
OLD SCHOOL HOUSE/ ROUND ROCK			X			
OLD STONE HOUSE BETWEEN ROUGH ROCK AND ROUND ROCK			X			
MANY FARMS LAKE				X	X	
RODEO AT ROUND ROCK JUNCTION		X			X	
ROADSIDE VENDORS		X			X	
BIKING, ROCK CLIMBING, JEEP TOURS		X			X	
ANASAZI SITES NEAR ROCK POINT		X				
TRADITIONAL CEREMONIAL AREA (OPEN TO PUBLIC)		X				
OLD CATHOLIC CHURCH IN ROUND ROCK		X				
CENTRAL NAVAJO FAIR		X				



Round Rock



Many Farms Rodeo Grounds, home of the Central Navajo Fair



Whale Rock



Intrinsic Qualities

GOALS AND STRATEGIES

Goals

The goals and strategies help frame the vision of the Corridor Management Plan. Goals highlight what the plan hopes to achieve, while the strategies specify measures to achieve the stated goal. Actions are recommended specific tasks that can be completed in order to achieve the goals.

The goals were developed from input at the public meetings and from further revision during the draft plan preparation. Listed below are the goals, followed by specific strategies for achieving them.

Goal #1:

Maintain and improve roadway conditions to safely accommodate residents and travelers.

Action Items:

- Improvements should be made to the pullout at Round Rock and pullout located between Round Rock and Rock Point.
- Add a pullout within the area 3 miles north of the junction with 284. This area provides a scenic view of Beautiful Valley.
- Add a pullout at MP 466.0/MP 467.0; tourists often stop here to take photographs.
- Widen gate at cattle guard at MP 466.3.
- Develop more signs to identify amenities along the corridor.
- The adopt-a-highway program does not seem to provide the necessary maintenance for this area. More funding may be needed to initiate additional means to keep the roadway clean.
- Right-of-way fences should be respected. Signs and education to promote keeping these intact should be initiated.

Goal #2

Promote economic opportunity and tourism management.

Action Items:

- Develop a marketing plan that will promote the byway regionally and nationally.
- Develop a visitor center along the corridor that incorporates information about the chapters along the byway.
- Design maps, informational brochures detailing recreational opportunities, and cultural brochures to highlight the corridor's intrinsic qualities.
- Provide permit procedure and guided recreational tour sign-ups at the visitor center.
- Consider collector items that could be sold at a visitor center or along the corridor.
- Support development projects that will bring economic benefit to the community through tourism dollars (i.e. Many Farms truck stop near lake, hotel, camping and horseback riding development in Rock Point).
- Advertise the rodeo at Round Rock Junction, which is open March through September to the public.
- Support and encourage arts and crafts and food vendors but grouped together in areas where safe pull off and parking can be provided.

Goal #2 continued

- Consider guided tours including hiking, rock climbing, camping, and jeep tours.
- Consider extending the byway designation to Chinle.
- Explore ways to capture more travelers by advertising the roads continuity from Denver to Mexico.
- Encourage means to educate travelers about both the points of interest and necessity of preserving them.

Goal #3

Protect and conserve the natural resources and habitat

Action Items:

- Encourage the use of native construction materials.
- Encourage the use of compatible color, form, and scale in new projects.
- Discourage construction of new billboards or similarly intrusive signs.
- Discourage light pollution along the corridor.
- Encourage roadway development setbacks to keep the scenic corridor open and natural

Goal #4

Promote educational opportunities so that travelers may develop an appreciation for the Nation's unique culture.

Action Items:

- Develop an overall interpretive plan.
- Develop a brochure to tell the stories of all the rock features found along the byway.
- Explore renovating the old school and old trading post found at Rock Point.
- Explore the possibility of holding a traditional ceremony open to the public within one of the established ceremonial areas.
- Provide opportunities for tourists to view and learn about Anasazi sites near Rock Point.
- Design safe pull offs where views and interpretive opportunities can occur.

FUNDING AND FINANCING

Funding Sources

Several possible funding sources for improvement projects are listed below. Due to the rapidly changing budgets for many of these organizations, these sources should be contacted for current information.

Transportation Alternatives Program

Eligibility Principles

The Transportation Alternatives Program (TAP) is the new funding program for nonmotorized projects under MAP-21 (Moving Ahead for Progress in the 21st Century). Eligible projects that may be related to scenic byways include:

- ♦ construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation
- ♦ construction of turnouts, overlooks, and viewing areas
- ♦ inventory, control, or removal of outdoor advertising
- ♦ vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control

There are some projects that are no longer eligible under MAP-21 such as visitor and welcome centers. Additional information is available at the Federal Highways Administration (FHWA) website: <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>.

A snapshot of the selection process includes the following:

- ♦ Entities may submit project applications through their Metropolitan Planning Organization; in this case, Northern Arizona Council of Governments. Applications can be sponsored directly by the Navajo Nation.

The call for projects occurs annually.

National Scenic Byways Grants

Under MAP-21, National Scenic Byways Program funding was eliminated. However, some items are still eligible under other programs (see the Transportation Alternatives Program).

Other

Adopt-A-Highway. Trash removal and pick-up could be supplemented by the Adopt-a-Highway program. www.azdot.gov/highways/adoptahwy/index.asp

Grants.Gov. This program allows organizations to electronically find and apply for more than \$400 billion in Federal grants. www.grants.gov

Foundation Center is the nation's leading authority on philanthropy and is dedicated to serving grantsseekers, grantmakers, researchers, policy makers, the media, and the general public. www.fdncenter.org

Just Grants! Arizona is a one-stop source for news, tools, and resources for and about Arizona's grants community. www.azgrants.com

Trust for Public Lands is a national, non-profit, land conservation organization that conserves the land for the people to enjoy as parks, community gardens, historic sites, rural lands, and other natural places, ensuring livable communities for generations to come. www.tpl.org

Highway Expansion and Extension Loan Program. HB 2488 established a comprehensive loan and financial assistance program for eligible highway projects in Arizona. The Highway Expansion and Extension Loan Program (HELP) provides the state and communities in Arizona with a financing mechanism to accelerate transportation construction projects. However, due to

budget issues, HELP loan applications are not being accepted until further notice. http://www.azdot.gov/Inside_ADOT/FMS/HELP.asp

Highways Users Revenue Fund. These funds are collected from taxes on motor fuels and other fees and charges related to the registration and operation of motor vehicles on the public highways of the state. These revenues are then distributed to the cities, towns, and counties and to the State Highway Fund. They are the primary source of revenues available to the state for highway construction and improvements and other related expenses. www.azdot.gov/Inside_ADOT/FMS/Hurfund.asp

Navajo Nation Department of Transportation (NNDOT). The Navajo Nation Road Funds can be used for design, road construction and improvements, and road maintenance projects. The road funds are collected from fuel excise taxes for each given year. NNDOT provides administrative and technical services to the Navajo Nation and Bureau of Indian Affairs in the areas of environmental planning, engineering design, archaeological clearance, field surveys, transportation planning, road maintenance/construction, and the road fund program. www.navajodot.org

Bureau of Indian Affairs (BIA). The BIA is responsible for road maintenance and construction

of all BIA system-roads in the Navajo Nation. Sharing of funds under an Intergovernmental Agreement is available where system roads are involved in improvements, such as intersections.

AGENCIES

ADOT

ADOT is responsible for managing the roadway. The majority of the byway falls within the Flagstaff Maintenance District with a small portion at the south end being in the Holbrook District. The land the roadway is on is owned by the Navajo Nation.

Navajo Nation

The Navajo Nation is responsible for managing what occurs outside of the road right-of-way. The tribe will make decisions as to what will or won't be built within view of the corridor.

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