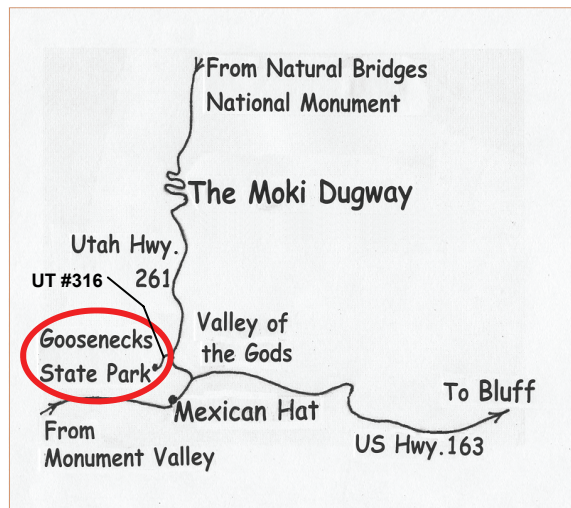


Raplee Anticline, on the horizon six miles east of the Goosenecks, is an example of folding made visible by erosion.

Across the canyon you see 'steps' in the wall formed where softer shale erodes. The resistant limestone layer is undercut and breaks off in large blocks forming vertical ledges. The blocks are visible lying on the slopes before they break apart and slide to the river where they are rolled, ground, and worn into rounded cobble stones and eventually are ground into sand.

In the 1890's, prospectors looking for gold flocked to Mexican Hat. They built the Honaker Trail to access the deepest part of the gorge. The trail, 1½ miles northwest of the park toward John's Canyon, is narrow and winding and drops 1,000 feet in its 2½ mile length from top to bottom.

Goosenecks State Park provides the opportunity to study the earth's skeleton. The desert landscape reveals the underlying structure not easily discernable in areas where flora obscures the earth's bones. Activities include picnicking, sight-seeing, and hiking. Camping is allowed but, due to the strong wind on the mesa, tent camping is not recommended. Campgrounds and lodging are available nearby. Open year round. Small parking area and pit toilets. No water or firewood is available.



FOR MORE PARK SPECIFIC INFORMATION

Contact:



**Edge of the Cedars
State Park & Museum**

**660 West 400 North
Blanding, UT 84511
435-678-2238**

For information about the surrounding Four Corners area attractions contact
Utah's Canyon Country!
800-574-4386



www.utahscanyoncountry.com

**Monument Valley - Lake Powell
Canyonlands**

GOOSENECKS STATE PARK



Goosenecks State Park is out where the highways end! An astonishing view of the great Goosenecks of the San Juan River is spread at your feet at this small but breathtaking park. The river flows 1,000 feet below the overlook nine miles west of Mexican Hat via Utah Highways 163, 261, and 316.

The paved entrance road is easily traversed by highway vehicles.

PLEASE USE CAUTION!
There are many loose rocks and high ledges. There is no barrier at the canyon edge.

GEOLOGIC HISTORY

On the edge of a deep canyon above the sinuous river meander known as a 'gooseneck' this small park affords a view of one of the most striking and impressive examples of an *entrenched river meander* on the North American continent. The San Juan River twists and turns through the meander, flowing a distance of over six miles while advancing 1½ miles west toward Lake Powell.

What you see is the result of over 300 million years of geologic activity. The oldest rocks are found at the bottom of the canyon and the youngest are all around you on the mesa top. The lower third of the canyon walls are limestone in the Paradox Formation, which was created in an ancient sea during the Pennsylvanian period, between 310 and 300 million years ago. As the sea evaporated, mineral deposits of gypsum, salt, or carbonates such as limestone and dolomite were left behind. These deposits can be found throughout the Four Corners region. The same process is going on today in northern Utah as the Great Salt Lake slowly evaporates.

The upper two-thirds of the canyon are the Honaker Formation from the Upper Pennsylvanian period, 300 to 270 million years old. The formation is composed of alternating beds of shale and limestone topped with sandstone. Many of the limestone layers contain the fossil remains of crinoids, brachiopods, and corals.

A 'fossil oil field' also exists here. Long ago oil rose to the surface and was subsequently covered by multiple layers of sediment. The river continues to cut its way through those layers freeing the trapped oil and allowing it to seep into the river. Small oil seeps can often be seen in the canyon. At other locations in the Four Corners, these geologic layers are important oil producers.

Other formations were deposited after the Honaker. Four footed animals known as tetrapods developed, the age of the dinosaurs came and went, and the age of mammals began. Environments also changed beginning with the ancient sea, developing to a stream covered plateau, and ultimately becoming the desert you see today. Evidence of each epoch is in the geology visible from Goosenecks State Park. The Colorado Plateau began rising 70 or 80 million years ago and the last sea poured out to the southeast as the earth's crust began folding in upwarps or 'anticlines' and downwarps or 'synclines' and 'cut and fill' erosion began. Drainage courses developed which eventually became the Colorado and San Juan Rivers.

The water moved slowly across the fairly level land in a lazy, winding stream pattern much like the Mississippi or Danube Rivers of today. As the land continued to rise, the river flowed faster and eroded through the geologic layers. It cut deeply into the land and created this 1,000 foot deep entrenched meander. Several thousand feet of earth have been eroded from this site over the past several million years.

Erosion has also exposed volcanic 'intrusions'. Alhambra Rock, on the horizon southwest of Mexican Hat, Shiprock to the east in New Mexico, and El Capitan (Algalthla Peak) to the south are all igneous intrusions created by molten rock forced up through the overlying layers of sandstone and hardened. The sandstone eroded leaving the intrusions standing as lone sentinels. Erosion has also revealed the folded crust or anticlines and synclines.

The Goosenecks of the San Juan River



Photo: George Konizer