elcome to the Perea Nature Trail Area! This is an **V V** easy, one-mile loop trail along a riparian area just outside the village of San Ysidro. Take in the sweet sounds of nature while viewing the colorful cliffs and high desert landscape as you relax on a bench in the shade of a giant cottonwood.

## Pets

Pets are welcome but please remember to pick up after them and keep them on a leash at all times.



## Location

From Bernalillo, travel about 20 miles north on US 550. cross the Rio Salado bridge and turn left (west) on the paved access road just before the village of San Ysidro. A brown state highway recreation sign is posted on US 550 at the turnoff.

Latitude/Longitude: 35.54561944 / -106.7817506

## **A Riparian-Wetland Area**

Riparian-wetland areas occupy a unique position in the landscape and life of the western United States. They are a great deal more important than we might expect, given their relatively small acreage (less than 2 percent of the land in New Mexico).

Riparian-wetland ecosystems are areas near rivers, lakes or springs and are important islands of environmental diversity. Lying within much larger, drier and higher ("upland") ecosystems, these small areas attract greater numbers and more use by wildlife and livestock than their size would suggest. In terms of the total volume of plants they support, they are generally more productive than the nearby uplands. They also add to the supply of groundwater, reduce the effects of flooding, and remove pollutants.

Wetlands have a water table at, near or above the land surface. They are waterlogged for a long enough period to support "hydric" soils (with a higher level of the element hydrogen and less oxygen) and "hydrophytic" vegetation (those plants that grow well in very wet soil). Plants in wetlands are especially good at producing oxygen.

Wetlands are so productive because they can catch large amounts of the sun's energy and store it as chemical energy, and they recycle much of the energy they produce on their own. These areas and their plants are nutrient traps that help with air and water pollution.



**Bureau of Land Management** Albuquerque District, Rio Puerco Field Offic 100 Sun Ave. NE Pan American Bldg., Suite 330 Albuquerque, New Mexico 87109 505/761-8700

www.blm.gov/new-mexico

In case of emergency Immediate Emergency - 911 BLM 24-hour Dispatch - 1/800/637-9152 U.S. Department of the Interior Bureau of Land Management

## **Perea Nature Trail Area**

**Geology and Wetland** 





The view to the North, from the Perea Nature Trail, is dominated by a mountain peak, meagerly covered with native juniper and grasses. The mountain highlights the Jemez Mountain range, which is the southern start of the Rocky Mountains that extend northward to Alaska.

1. The western reaches of the mountain peak, and its crest, are composed of a white-to-tan sand-stone that forms sharp ridges. It is of the Triassic Age and called the Agua Sarca formation.

2. Lower, on the east side of the peak, an overlay of grey Permian-Age sandstone appears. The sand stone is called the Glorieta formation and is a cliff-forming rock. 3. The slope breaks abruptly, and forms a brilliant red, vertical face at the San Ysidro Fault. Here, the mountain is striped with shades of red. This was developed during the Permian Age and these stripes are out-crops of the Abo and Yeso formations. The Abo formed in river channels and on floodplains, while the Yeso formed in a shallow marine environment with local wind-blown sands.

4. The high rock formations with purple hues seen in the distance are part of the Nacimiento Mountain chain. These are principally granite, gneiss, and schist that formed during the Precambrian Age. The gneiss and schist form the core of the Nacimientos, and are the oldest rocks in the area.



Visitors to the Perea Nature Trail may look to the southwest, over the Rio Salado river bed, to view an out-standing geologic setting.

1. The Todilto layer forms the edge of a large flat mesa known as 'Blanco Mesa', for its unusual white surface. The mesa has been used as a creative background for motion picture scenes and photographic productions, and for the mining of gypsum. Gypsum is mined and shipped to Albuquerque and Bernalillo for manufacture of wall-board to be used nationwide in home construction.

2. At the upper reaches of the existing cliffs, layers of near-white rock can be seen. These layers are known as the Todilto Formation, also of the Jurassic Age. The

Todilto Formation is composed of brown limestone at the base and is overlain by white gypsum up to 100 feet thick.

3. This layer is composed of light tan-to-yellowish sandstone cliffs, and is part of the Jurassic Age it is called the Entrada formation. The sandstone was formed from ancient sand dunes.

4. Rising from the sparsely vegetated grazing lands are small hills and mounds of landslide deposits, fallen from centuries of decay of the rocky cliffs above. These show an inter-mix of colors from red-to-orange in the lower layer, and grey-to-white material deposited from above. The lower layer was formed during the Triassic Age and is part of a group of rocks called the Chinle formation.

Geologic Time Scale	
Subdivisions Based on Strata/Time Systems/Age	Radiometric Dates (millions of years ago)
Quaternary	0-2?
Tertiary	2?-63
Cretaceous	63-145
Jurassic	145-210
Triassic	210-255
Permian	255-280
Pennsylvanian	280-320
Mississippian	320-360
Devonian	360-415
Silurian	415-465
Ordovician	465-520
Cambrian	520-580
Precambrian	580-3,000

