

BLM

Oregon

The Secrets of the Steens

Steens Mountain National Back Country Byway featuring

- The Dying Lakes
- The Speed Demon
- The Fault's Fault
- The Riddles of the Steens
- and many others

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

BLM/OR/WA/95/GI-26/2211.22





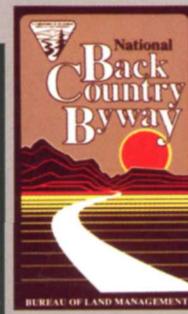
Jackman Park Campground

Steens Mountain - Something for Everyone

The Steens is rich in history, natural beauty, and resources. It provides for a variety of uses including recreation, livestock grazing, wildlife habitat, mining and wild horses.

It is only through continued cooperation of the landowners (private and public) and you, the visitor, that the Steens can be effectively managed for all interests. The BLM invites you to come and enjoy the mountain but remember, you are sharing it with many other people, as well as the animals and plants who live here.

Steens Mountain National Back Country Byway



Length: 66 miles

Open for use: The entire loop is usually open from July 1-October 31. Depending on snow conditions, sections of the road may open earlier and later. For up-to-date information call the Burns District of the BLM at 541-573-4400, or write to the District Manager at: HC74 12533 Hwy 20 W, Hines, OR 97738.

Road Conditions: The road is rough and rocky in places and has steep, narrow stretches with no guardrails. Motor homes, trailers, and cars with low clearance are not recommended. Suggested maximum speed is less than 35 MPH.

Hazards: Dramatic weather changes are not uncommon. Be prepared for sudden lightning storms, snow, rain and high winds.

Visitor Facilities: BLM fee campgrounds with drinking water and vault toilets are located at Page Springs, Fish Lake, Jackman Park, and South Steens. A private campground, gas, phone, and store are available at Frenchglen. PRIVATE LAND EXISTS ON THE STEENS AND MAY BE USED ONLY WITH THE OWNER'S PERMISSION.

Additional Information: Information is contained on the south half Burns District Map, available at the Burns District Office west of Hines, Oregon, on Highway 20. If you have any questions, please call us at 541-573-4400.



Kiger Gorge

Nature's Bulldozer

During the Ice Age, glaciers formed in the major stream beds on the mountain. These glaciers dug trenches about one-half mile deep, down to a layer of hard basalt. The result was four immense U-shaped gorges - Kiger, Little Blitzen, Big Indian and Wildhorse. The famous notch in the east ridge of Kiger Gorge formed during a later glaciation when a small glacier in Mann Creek Canyon eroded through the ridgetop.



East Face of Steens Mountain

It's the Fault's Fault

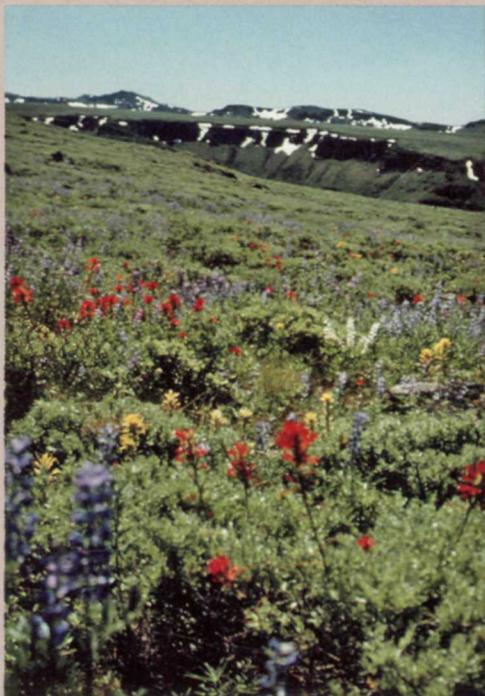
A fault is a fracture in the earth's surface. When pressure builds up underground, movement is more likely to occur at a fault because it is a weak point. Long ago, massive internal pressure forced the east edge of the Steens upward along a fault line. The result was a 30-mile-long fault-block mountain with a spectacular and rugged east face that rises abruptly, one vertical mile above the Alvord Desert. The Steens is the largest fault-block mountain in the northern Great Basin.



Rain Shadow Effect

In the Shadow of the Steens

Clouds can only hold so much moisture before they drop their load as rain or snow. The higher a cloud is, the less moisture it can hold. As clouds, moving from the west, are forced upward over Steens Mountain, they drop most of their water. The slope on the east side doesn't receive nearly as much precipitation because it is in the "rain shadow" of the mountain. The upper west slope of the Steens receives about 25 inches of precipitation annually. The Alvord Desert, in the rain shadow of the Steens, receives less than 6 inches.



Wildflowers at the top of Steens

The Progressive Dinner

Spring comes in March or April at the foot of the Steens. As the months pass, flowers bloom higher on the slopes and wither at the lower elevations. Insects, hummingbirds, and other nectar-gatherers follow this "progressive dinner" up the mountain, as do deer in search of forage. For thousands of years, Native Americans followed spring up the mountain, gathering plants and animals for food. Today, botanists and wildflower enthusiasts do the same.



Golden Eagle

The Elevator of Air

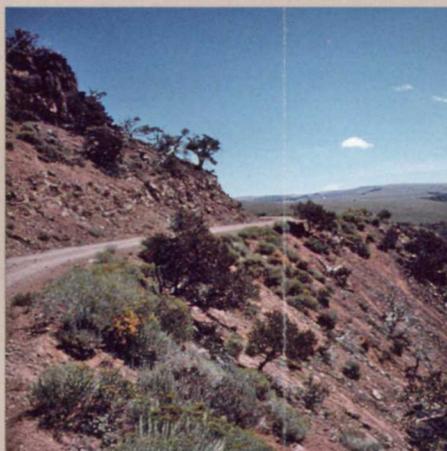
As air heats up in the Alvord Basin, it rises along the east face of the Steens, creating "thermal updrafts" - elevators of air. Raptors, such as falcons, hawks and eagles, use the updrafts to soar over the rugged countryside searching for food. Golden eagles, the largest raptor on Steens Mountain, may be seen riding the wind currents along the rim.



Wildhorse Lake

The Hanging Valley

After massive glaciers gouged out the major gorges, a second glaciation altered the landscape again. During that time, small glaciers at the top of the gorges excavated more earth and pushed it part way down the gorge. When the glacier melted, a hanging valley remained. Wildhorse Lake sits in a depression in a hanging valley.



Hogback

Rivers of Ice

Imagine two rivers of ice, completely filling Big Indian and Little Blitzen Gorges. The powerful ice comes so close to cutting its way through that only a narrow ridge separates the sheer east face and the heads of the canyons to the west. The South Loop Road leaves this ridge and winds along the "hogback" between the two rivers, eventually plunging down the face of another fault scarp below the "rooster comb" area at the far west end.



Riddle Brothers Ranch

The Riddles of the Steens

Hundreds of homesteaders tried their luck on and around the Steens; very few stuck it out. The Riddle brothers, Walter and Fred, made a living for over 40 years in the Little Blitzen Valley. They settled in the early 1900's and built their ranch by gaining control of water in the area. Without access to water, the nearby open range was useless to everybody except the Riddles. In the 1950's, old age over took the Riddle brothers who sold the ranch holding to Mr. Rex Clemens. In the 1986, the BLM purchased the property, which will be managed for its historic values for present and future generations.

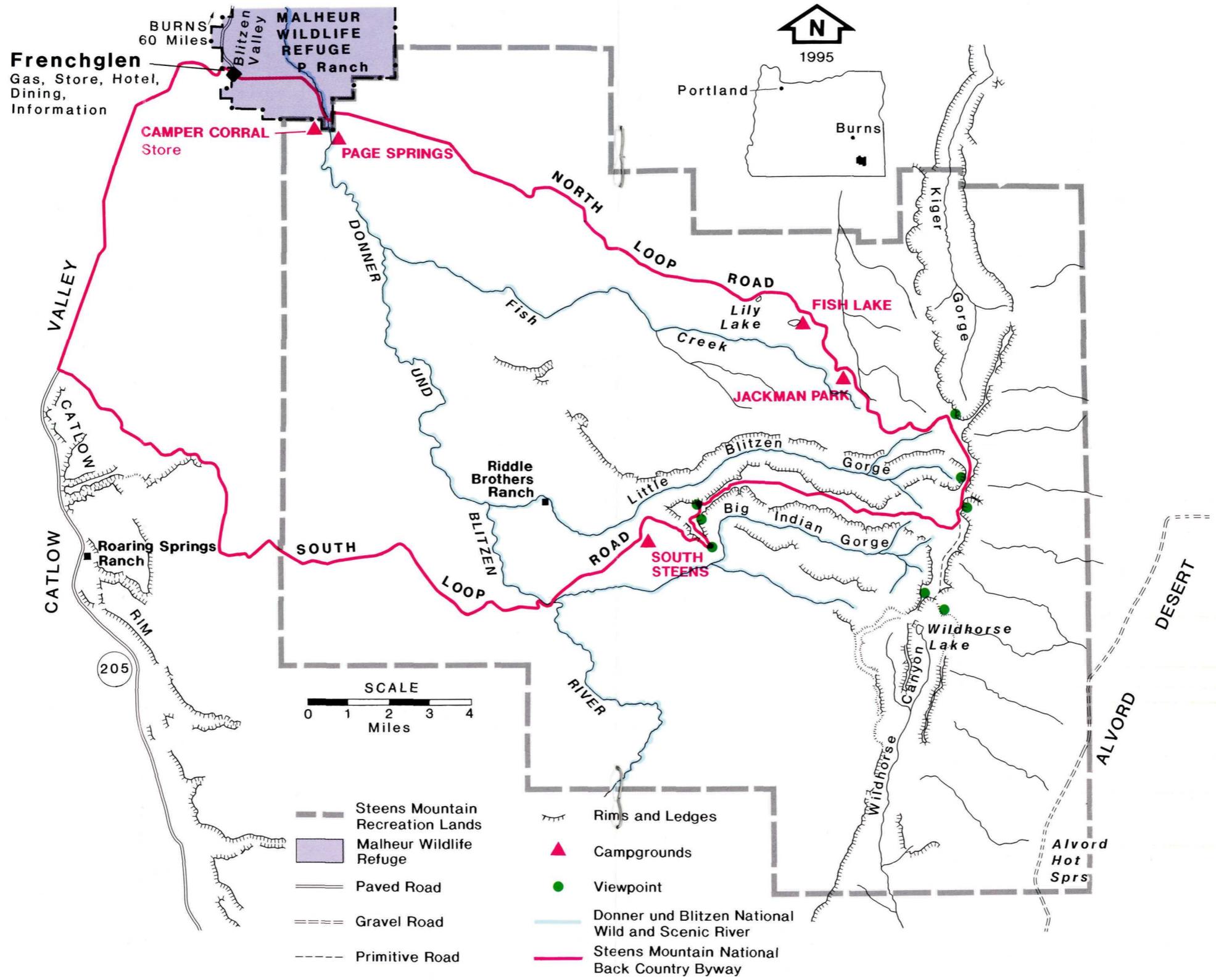
Today, water is even more precious because of increased demand for irrigation, recreation, fish and wildlife habitat, and for maintaining the vast marsh lands on the Malheur National Wildlife Refuge.

Wild Horses

The plateau area between the Catlow Rim and the Blitzen River is wild-horse country. The South Steens wild horse herd descended from horses that escaped from early explorers, settlers, miners, Indians, and ranchers. The BLM manages these animals to preserve their wild, free-roaming nature, maintaining a healthy viable herd in balance with the environment. The herd numbers up to 300 animals.



Wild Horses



Frenchglen
Gas, Store, Hotel,
Dining,
Information

CAMPER CORRAL
Store

PAGE SPRINGS



1995

Portland

Burns

CATLOW VALLEY

NORTH LOOP

ROAD

FISH LAKE

Lily Lake

Creek

JACKMAN PARK

Fish

UND

DONNER

Riddle Brothers Ranch

Blitzen

Gorge

Little

Big Indian

Gorge

SOUTH LOOP

ROAD

SOUTH STEENS

Wildhorse Lake

Canyon

Wildhorse

ALVORD

DESERT

Alvord Hot Sprs

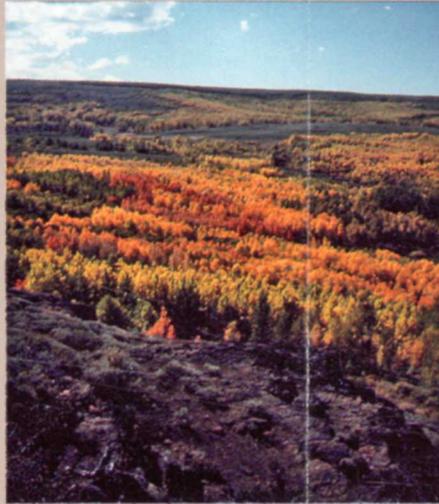
SCALE



- Steens Mountain Recreation Lands
- Malheur Wildlife Refuge
- Paved Road
- ==== Gravel Road
- Primitive Road

- ⌒ Rims and Ledges
- ▲ Campgrounds
- Viewpoint
- Donner und Blitzen National Wild and Scenic River
- Steens Mountain National Back Country Byway

How Many Belts Can You Find?



McCoy Creek

Above the trees, severe climate, and thin soils result in a belt of grasses, low-growing plants, and stunted, wind-formed shrubs. As you drive up the Loop Road, notice how the plant life changes. At the base of the mountain, where water is scarce, is a belt of sagebrush. Further up, increased moisture creates ideal conditions for a dense belt of juniper. As you leave the junipers, look for stands of quaking aspen. You will also see mountain mahogany on drier rocky ridges. Steens Mountain is one of the few places in North America where conifers, like firs and pines, are not the "timber" at timberline.

The Speed Demon

Capable of running at speeds over 50 mph (in short bursts), the pronghorn antelope is the fastest American mammal. Antelope prefer eating shrubby plants, like sagebrush, and are often seen on the mountain, even on the top at over 9,500 feet elevation!

Steens Mountain is home to other large mammals, too. Look closely (use binoculars) along the east rim for the majestic bighorn sheep with its massive, curled horns. Watch near cover and water in the evening and early morning for mule deer and Rocky Mountain elk.



Pronghorn Antelope

The Fire Lover

Quaking aspen need fire! After a wildfire clears the plants from deep, moist soils, aspen is one of the first "pioneers" to settle the burned-over area. If that area is not burned again, juniper and other trees gradually take over. Until recently, wildfires naturally occurred on the Steens, killing other plants and allowing aspen to grow. Because fire has been suppressed over the past 50 to 60 years, many aspen stands are being taken over by junipers at the lower elevations. Since aspen is an important source of food and cover for wildlife, the BLM is letting some stands burn, and may purposely burn others to maintain healthy stands. Junipers are also being cut to allow aspen stands to recover.



Quaking Aspen

The Dying Lakes

The intense weight of ancient snow and ice fields made depressions in the land. When the ice and snow melted, water filled the depressions, creating lakes that became homes for fish and wildlife. Many of the lakes, like Lily Lake, are now slowly filling in with sediments and plants. Many of the alpine meadows on the Steens were once lakes.



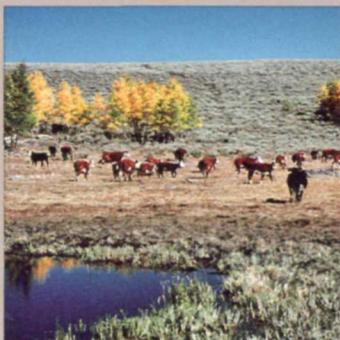
Lily Lake

Music on the Mountain

During the Roaring Twenties, Steens Mountain was a popular summer retreat for 2-footed and 4-footed tourists. With free, unclaimed choice summer pasture, the mountaintop became a mass of sheep, cattle, cowboys, and Irish and Basque shepherders from July through September.

The aspen groves were popular camping and gathering spots, offering fuel for fires, shelter from weather and escape from boredom. On warm summer evenings, you could often catch snatches of lively fiddle music drifting across the mountain slopes as the summer lodgers gathered for an evening of music and fun.

Livestock still graze here, as part of multiple-use management, though in much reduced numbers. Place names like Corral Creek, Honeymoon Lake and Whorehouse Meadows are reminders of an era gone by.



Cattle on the Steens



Steens Mountain

The Oasis

Scorching sun...baked earth...miles of dusty sagebrush. In the distance, a snow-covered mountain promises a supply of the most priceless of arid country commodities - water. In a land where water is synonymous with life, Steens Mountain is a paradise.

Because of its elevation, the Steens collects more rain and snow than the lowlands. Over the years, that rain and snow have crushed, gouged, scoured and carved the mountain. The water has given "life" to plants and animals, both on the mountain and in the surrounding countryside.



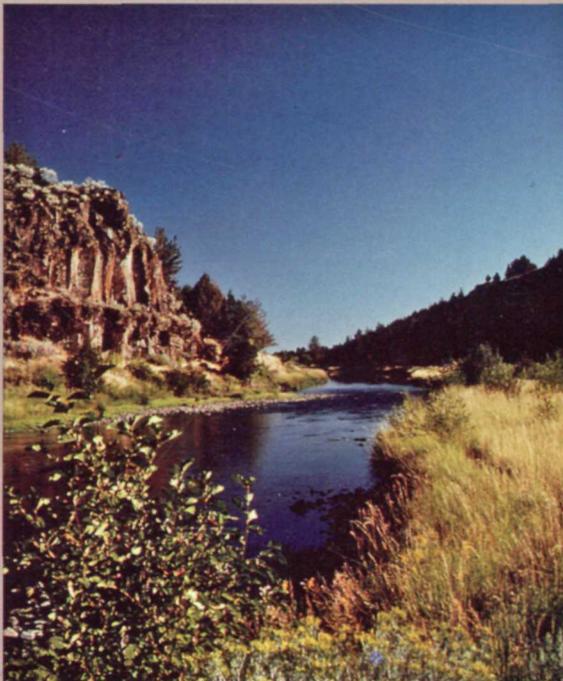
Marshland



P-Ranch

P-Ranch - Heart of an Empire

When Pete French arrived in the Blitzen Valley in 1872, he saw the green grass and constant water supply from the Steens as prime ingredients for a cattle operation. In just 28 years, French built the largest single cattle ranch in the United States. His former headquarters, the P-Ranch, can be seen about 1-mile east of Frenchglen.



*Donner und Blitzen National
Wild and Scenic River*

The Thunder and Lightning River

In 1864, Captian George B. Currey and his command were forced to cross this river during a thunderstorm while in pursuit of Indians. He named the river "Dunder und Blitzen", which was German for thunder and lightning. The Blitzen, as it is often called, and it's tributaries supply water to the Malheur National Wildlife Refuge, an oasis for waterfowl and other wildlife.