



Visiting Mammoth Springs in Yellowstone

Another site of Yellowstone National Park is the Mammoth Hot Springs. This vast area is a system of hot springs on a hill of travertine located adjacent to Fort Yellowstone and the Mammoth Hot Springs Historic District. Created over thousands of years as hot water from the underground springs deposit calcium carbonate (over two tons flow into Mammoth each day in a solution) turning the landscape into an inverted cave.

The hot water that feeds Mammoth comes from Norris Geyser Basin after traveling underground via a fault line that runs through limestone and roughly parallel to the Norris-to-Mammoth road. The limestone from rock formations along the fault is the source of the calcium carbonate. The thermal flows show much variability with some variations taking place over periods ranging from decades to days. Terrace Mountain at Mammoth Hot Springs is the largest known carbonate-depositing spring in the world. The most famous feature at the springs is the Minerva Terrace, a series of travertine terraces. The terraces have been deposited by the spring over many years but, due to recent minor earthquake activity, the spring vent has shifted, rendering the terraces dry.

MAMMOTH NOTE: The Mammoth Terraces extend all the way from the hillside, across the Parade Ground, and down to Boiling River. The Mammoth Hotel, as well as all of Fort Yellowstone, is built upon an old terrace formation known as Hotel Terrace. There was some concern when construction began in 1891 on the fort site that the hollow ground would not support the weight of the buildings. Several large sink holes (fenced off) can be seen out on the Parade Ground.

Mammoth Springs of Yellowstone Sites of Interest:

1. Mammoth Terrace Boardwalk (Lower Terraces & Upper Terrace Drive)

These terraces are like living sculptures, shaped by the volume of water, the slope of the ground, and objects in the water's path. They change constantly, and sometimes overnight—but the overall activity of the entire area and the volume of water discharge remain relatively constant.

Follow a network of boardwalks through the **Lower Terraces**. Start at the 37 foot Liberty Cap at the north end and a side visit to Opal Terrace. Then follow the boardwalk to Palette Spring, Minerva Terrace, Cleopatra Terrace, Jupiter Terrace, Main Terrace, and Canary Spring. Drive the **Upper Terraces**: (No RVs or trailers allowed) drive the one-way road around the Upper Terraces, starting at the Lower Terrace Overlook. You'll pass features like Prospect, New Highland, White Elephant, and Angel Terraces, as well as Orange Spring Mound, and Bath Lake.

2. Beaver Ponds Loop Trail

The trail follows the creek up Clematis Gulch, climbing 350 feet through Douglas-fir trees. The beaver ponds are reached after hiking 2.5 miles through open meadows of sagebrush and stands of aspen. Elk, mule deer, pronghorn, moose, beaver dams and the occasional beaver and black bear may be sighted in the area. The hike ends at the back of the Mammoth Hotel giving hikers a good overview of the area; such as Fort Yellowstone, the terraces and the Yellowstone River. In the Fall bull elk converge on this area and can become aggressive during the mating season. Their bugling can be heard throughout the night.

Trailhead: Clematis Gulch between Liberty Cap and the stone house (Judge's house)

Distance: 5 mile (8 km) loop

Level of Difficulty: Moderate

3. Osprey Falls Trail

The trail follows the old roadbed for 2.5 miles through grassland and burnt forest. The Osprey Falls trail veers off the old road and follows the rim of Sheepeater Canyon before descending in a series of switchbacks to the bottom of Sheepeater Canyon. The Gardner River plunges over a 150-foot drop, forming Osprey Falls. Vertical cliffs rise 500 feet above you, making it one of the deepest canyons in Yellowstone.

Trailhead: 5 miles south of Mammoth on the Old Bunsen Peak Road Trail

Distance: 8 miles (12.9 km) roundtrip

Level of Difficulty: Difficult

4. Undine Falls Pullover

Easy viewing of Undine Falls is available at the pullover parking lot between Mammoth and Tower. No hiking necessary as the falls can be viewed from the roadside rock wall.

5. Wraith Falls

This short, easy hike through open sagebrush and Douglas-fir forest to the foot of Wraith Falls cascade on Lupine Creek.

Trailhead: Pullout ¼ mile east of Lava Creek Picnic area on the Mammoth-Tower Road

Distance: 1 mile (1 km) round trip

Level of Difficulty: Easy

Although not hikes, check out these historic sites in the area:

Always begin your hike by stopping at a ranger station or visitor center for information. Trail conditions may change suddenly and unexpectedly. Bear activity, rain or snow storms, high water, and fires may temporarily close trails.

6. Fort Yellowstone

The nationally significant Fort Yellowstone-Mammoth Hot Springs Historic District is in the northwestern portion of Yellowstone National Park on an old hot springs formation. The buildings on this plateau represent the first development of administrative and concession facilities in the park.

The first buildings of Fort Yellowstone were finished by late 1891. As more troops were needed, more buildings were constructed: officers' quarters, guard house, headquarters, barracks for enlisted men, stables for their horses and non-commissioned officers' quarters. In 1909, Scottish masons began constructing sandstone buildings here - among them the Albright Visitor Center (then the Bachelor Officers' Quarters) and the administration building (then a two-troop barracks for 200 men). The Chapel, the final building constructed during the Army's tenure, was also constructed of native sandstone. The stone from these buildings was obtained from a local quarry between the Gardner River and the Mammoth Campground.

Please don't limit yourself to just these places of interest... if you like history, visit the museums, walk thru the buildings or visitor center. There are more strenuous hikes, but may not be recommended for first time visitors not in good physical health. Test yourself on the short hikes. There is history and beauty all around - enjoy, and have your camera ready!

For more information go to: <http://www.nps.gov/yell/index.htm>