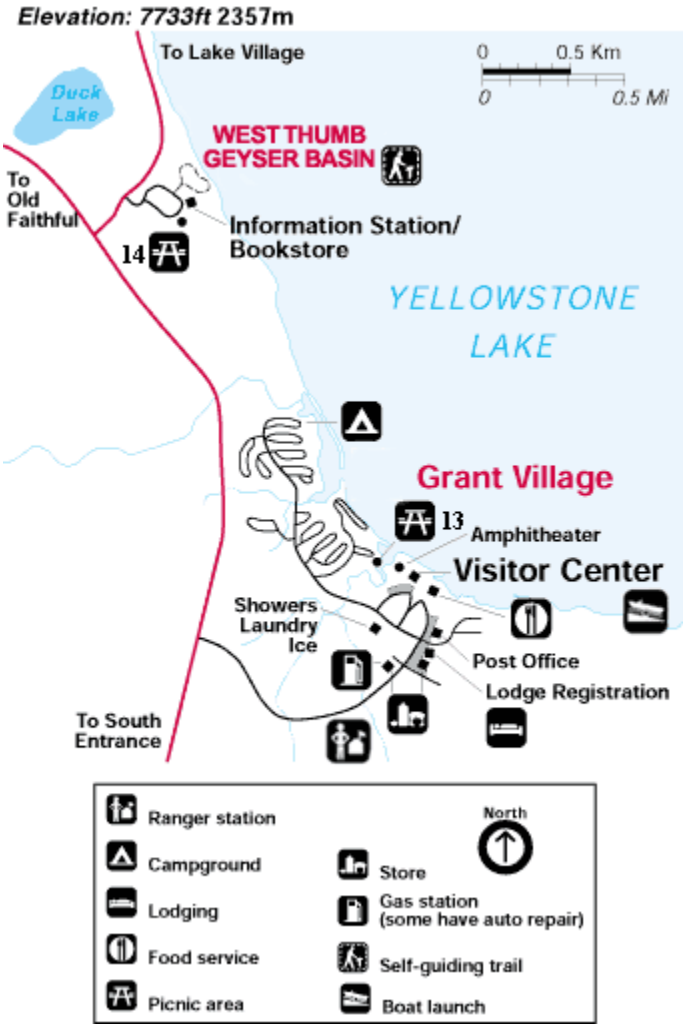
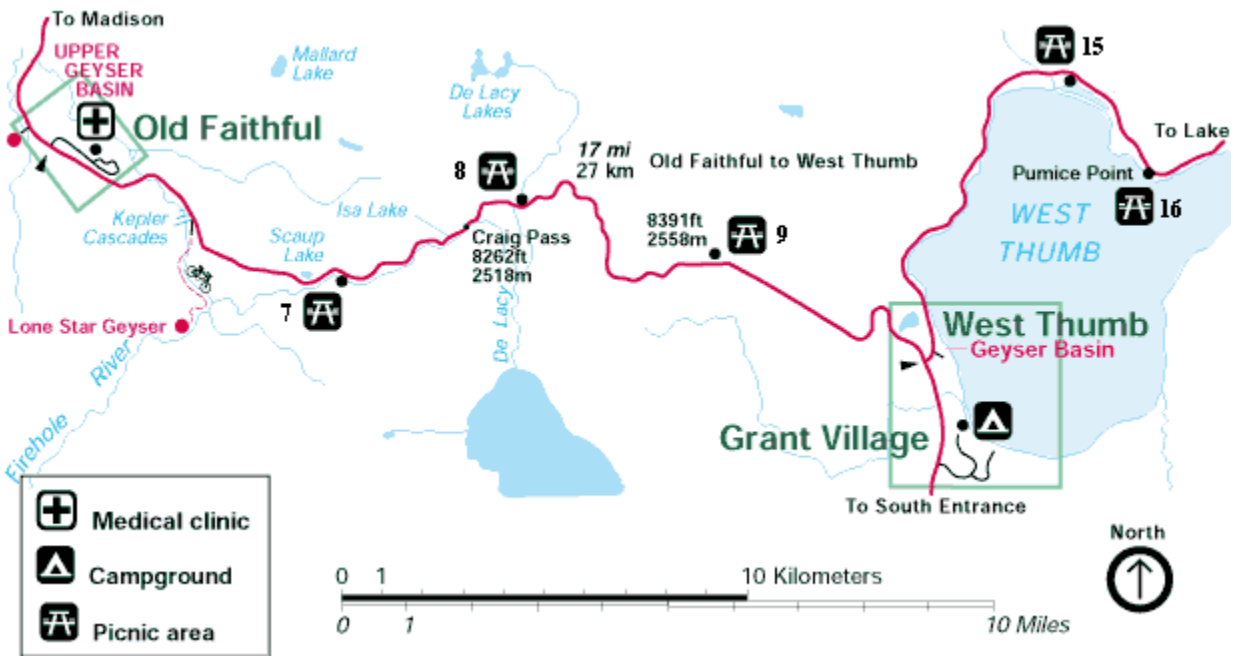
# GRANT VILLAGE AREA MAP

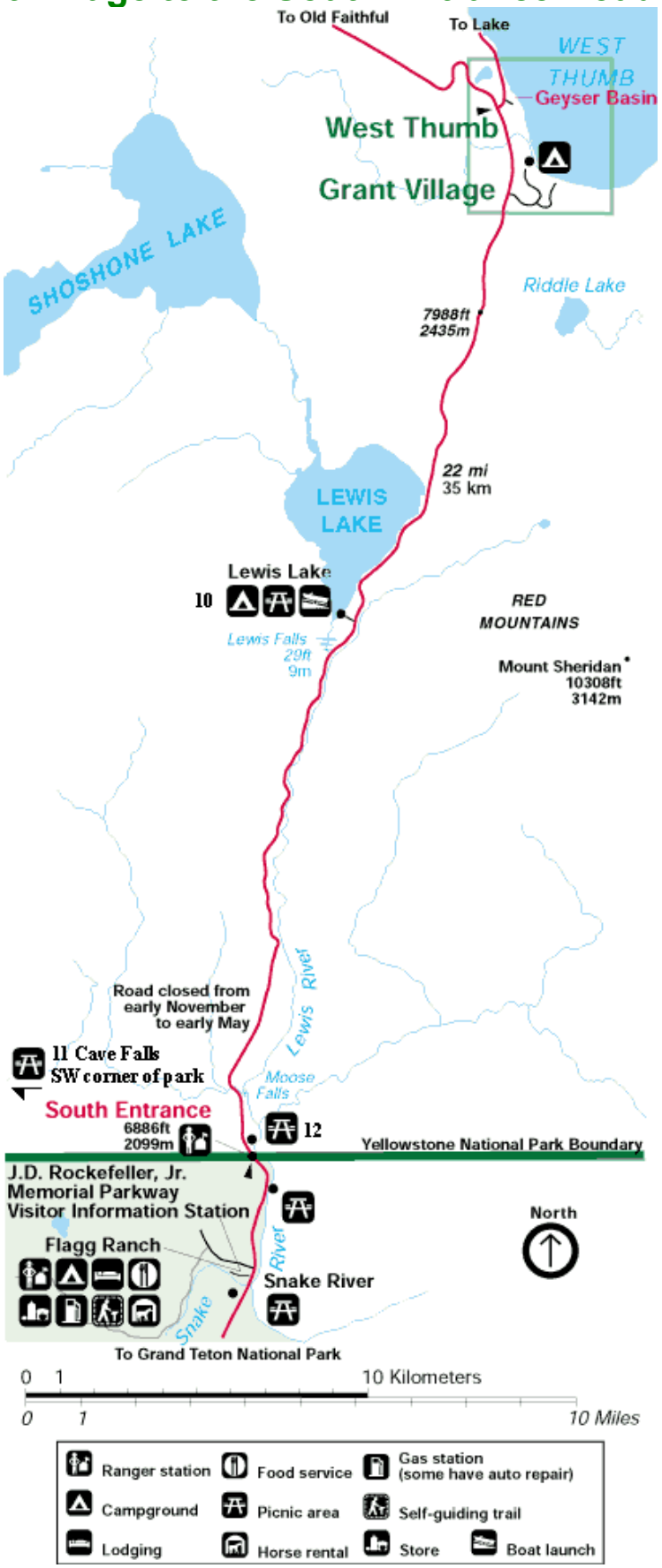


# Grant Village to Old Faithful Road Map



# Grant Village to Lake Vicinity Road Map

# Grant Village to the South Entrance Road Map



# Day Hikes Near Grant Village & West Thumb

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.

**West Thumb Geyser Basin Trail**

Stroll through a geyser basin of colorful hot springs and dormant lakeshore geysers situated on the scenic shores of Yellowstone Lake. Trails and boardwalks are handicapped accessible with assistance.

Trailhead: West Thumb Geyser Basin, 1/4 mile east of West Thumb Junction
Distance: 3/8 mile (1 km) roundtrip
Level of Difficulty: Easy; boardwalk trail with slight grade as trail descends to and climbs up from the lake shore

**Yellowstone Lake Overlook Trail**

Hike to a high mountain meadow for a commanding view of the West Thumb of Yellowstone Lake and the Absaroka Mountains.

Trailhead: Trailhead sign at entrance to West Thumb Geyser Basin parking area
Distance: 2 miles (3 km) roundtrip
Level of Difficulty: Moderate; mostly level terrain with a moderately strenuous 400-foot elevation gain near the overlook.

**Shoshone Lake Trail (via DeLacy Creek)**

Hike along a forest's edge and through open meadows to the shores of Yellowstone's largest backcountry lake. Look for wildlife in meadows.

Trailhead: Trailhead sign at DeLacy Creek, 8.8 miles west of West Thumb Junction
Distance: 6 miles (10 km) roundtrip
Level of Difficulty: Moderate; flat trail with no steep grades

**Riddle Lake Trail**

Crossing the Continental Divide, hike through small mountain meadows and forests to the shores of a picturesque little lake. Look for moose in the marshy meadows and for birds near the lake. **Bear Management Area--trail opens July 15.**

Trailhead: Approximately 3 miles south of the Grant Village intersection, immediately south of the Continental Divide sign
Distance: 5 miles (8 km) roundtrip
Level of Difficulty: Moderate; level walking

**Lewis River Channel/Shoshone Lake Loop Trail**

Get a feel for Yellowstone's backcountry...hike through a forested area to the colorful waters of the Lewis River Channel. Look for eagles and osprey fishing for trout in the shallow waters. For an all-day hike, follow the channel to Shoshone Lake and return via the forested Dogshead Trail.

Trailhead: Approximately 5 miles south of Grant Village intersection, just north of Lewis Lake on west side of the road
Roundtrip Distance: To channel outlet--7 miles (11 km) roundtrip; Loop--11 miles (17.5) roundtrip
Level of Difficulty: Moderate; mostly level, some rolling terrain

**Duck Lake Trail**

Climb a small hill for a view of Duck and Yellowstone lakes and explore the effects of the 1988 fires that swept through this area. Trail descends to lakeshore.

Trailhead: Trail begins in West Thumb Geyser Basin parking area, across the lot from Lake Overlook trailhead.
Distance: 1 mile (1.6 km) roundtrip
Level of Difficulty: Moderate

# Grant Village Area Natural Highlights

**Yellowstone Lake**

The park's largest lake is Yellowstone Lake. This "matchless mountain lake" was probably seen by John Colter on his famous winter trip of discovery in 1807-1808. Before that, Native Americans surely camped on its shores every summer. Although it is unlikely that Native Americans lived here, many arrowheads, spearheads, and other artifacts have been found near the lake.

William Clark's map of 1806-1811 showed what was probably Yellowstone Lake as "Eustis Lake," the name of the Secretary of War under President Jefferson. An 1814 map maker changed Clark's "Lake Biddle" (probably Jackson Lake) to "Lake Riddle," and it may at times also have referred to Yellowstone Lake. The name "Bridger Lake" (now applied to a small lake southeast of the park) may also have applied at times to Yellowstone Lake. In 1826, a party of fur trappers that included Daniel Potts, Bill Sublette, and Jedidiah Smith called Yellowstone Lake "Sublette Lake," and some historians credit Sublette with discovering the lake. Daniel Potts, one of the chroniclers of that 1826 trip, wrote to his family on July 8, 1827, and said that near the headwaters of the Yellowstone River is "a large fresh water lake...on the very top of the mountain which is about one hundred by forty miles in diameter and as clear as crystal" (letter, Yellowstone Park Research Library). Trapper Warren Ferris knew the name "Yellow Stone Lake" by 1831, and he showed it on his map of 1836. By the 1860s, Yellowstone Lake was well-known among former fur trappers, army personnel, and other frequent western explorers.

The 1871 Hayden Survey was the first to sail a boat, the *Anna*, on the waters of Yellowstone Lake, although some fur trappers or Indians may have floated rafts on the lake much earlier. Other early boats used to explore the lake were the *Topping* in 1874 (see Topping Point), a raft containing government surveyors in 1874, the *Explorer* in 1880 (see Explorer's Creek), a USGS boat destroyed by lightning in 1885, the *Zillah* in 1889, and the *E.C. Waters* (test runs only) in 1905. A boat piloted by Billy Hofer and William D. Pickett made at least one trip on the lake in 1880.

Yellowstone Lake covers 136 square miles and is 20 miles long by 14 miles wide. It has 110 miles of shoreline. The lake is at least 320 feet deep in the West Thumb area and has an average depth of 140 feet. Situated at an elevation of 7,733 feet, the lake remains cold the year-round, with an average temperature of 41°F.

Yellowstone Lake is the largest natural freshwater lake in the United States that is above 7,000 feet and is one of the largest such lakes in the world. Because of its size and depth and the area's prevailing winds, the lake can sometimes be whipped into a tempestuous inland ocean. During late summer, Yellowstone Lake becomes thermally stratified with each of several water layers having a different temperature. The topmost layer rarely exceeds 66°F, and the lower layers are much colder. Because of the extremely cold water, swimming is not recommended. Survival time is estimated to be only 20 to 30 minutes in water of this temperature.

The lake has the largest population of wild cutthroat trout in North America. Just how these Pacific Ocean cutthroat got trapped in a lake that drains to the Atlantic Ocean puzzled experts for years. There is now a theory that Yellowstone Lake once drained to the Pacific Ocean (via Outlet Canyon to Snake River) and that fish could pass across the Continental Divide at Two Ocean Pass. Lake trout, an illegally introduced, exotic species, is now found in Yellowstone Lake and threatens the existence of the native cutthroat trout.

Yellowstone Lake freezes over completely in winter, with ice thicknesses varying from a few inches to more than two feet. The lake's basin has an estimated capacity of 12,095,264 acre-feet of water. Because its annual

outflow is about 1,100,000 acre-feet, the lake's water is completely replaced only about every eight to ten years. Since 1952, the annual water level fluctuation has been less than six feet.

**West Thumb of Yellowstone Lake**

Members of the 1870 Washburn party noted that Yellowstone Lake was shaped like "a human hand with the fingers extended and spread apart as much as possible," with the large west bay representing the thumb. In 1878, however, the Hayden Survey used the name "West Arm" for the bay; "West Bay" was also used. Norris' maps of 1880 and 1881 used "West Bay or Thumb." During the 1930s, park personnel attempted to change the name back to "West Arm," but West Thumb remains the accepted name.

**West Thumb Geyser Basin**

While many of the park's features had been described by mountain men and other explorers, the West Thumb area was the first Yellowstone feature to be written about in a publication. Daniel T. Potts, a trapper in the Yellowstone region in the 1820s, wrote a letter to his brother in Philadelphia, Pennsylvania, regarding his experiences in this area. The letter was later corrected for punctuation and spelling and printed in the Philadelphia Gazette on September 27, 1827. Part of the letter describing the northern part of the West Thumb Geyser Basin, which is currently known as "Potts Basin" follows:

. . . on the south borders of this lake is a number of hot and boiling springs some of water and others of most beautiful fine clay and resembles that of a mush pot and throws its particles to the immense height of from twenty to thirty feet in height[.] The clay is white and of a pink and water appears fathomless as it appears to be entirely hollow under neath. There is also a number of places where the pure sulfur is sent forth in abundance[.] One of our men visited one of those whilst taking his recreation[.] There at an instant the earth began a tremendous trembling and he with difficulty made his escape when an explosion took place resembling that of thunder. During our stay in that quarter I heard it every day[.]

In 1869, the first scientific expedition to explore the Yellowstone area, the Folsom- Cook-Peterson Expedition, visited the West Thumb Geyser Basin. David Folsom described the area as follows:

Among these were springs differing from any we had previously seen. They were situated along the shore for a distance of two miles, extending back from it about five hundred yards and into the lake perhaps as many feet. There were several hundred springs here, varying in size from miniature fountains to pools or wells seventy-five feet in diameter and of great depth. The water had a pale violet tinge, and was very clear, enabling us to discern small objects fifty or sixty feet below the surface. A small cluster of mud springs near by claimed our attention. These were filled with mud, resembling thick paint of the finest quality, differing in color from pure white to the various shades of yellow, pink, red and violet. During the afternoon they threw mud to the height of fifteen feet. . . .

Historically, visitors travelling to Yellowstone would arrive at West Thumb via stagecoach from the Old Faithful area. At West Thumb, they had the choice of continuing on the dusty, bumpy stagecoach or boarding the steamship "Zillah" to continue the journey to the Lake Hotel. The boat dock was located near the south end of the basin near Lakeside Spring.

The West Thumb area used to be the site of a large campground, cabins, a photo shop, a cafeteria, and a gas station. This development was located immediately next to the geyser basin with the park road passing between the two. In an effort to further protect the scenic quality and the very resource that visitors were coming to see, the National Park Service removed this development in the 1980s.

**Abyss Pool**

In 1935, Chief Park Naturalist C.M. Bauer named Abyss Pool, a hot spring of the West Thumb Geyser Basin, for its impressive deepness. Bauer may have taken the name from Lieutenant G.C. Doane's 1870 description of a spring in this area: "the distance to which objects are visible down in [its] deep abysses is

truly wonderful" (Bonney and Bonney, Battle Drums, p. 330). Abyss Pool may also be the spring that visitors referred to during the 1880s as "Tapering Spring" because of its sloping walls.

Nineteenth century observers were impressed with the pool's beauty. In 1871, F.V. Hayden reported that this spring's "ultramarine hue of the transparent depth in the bright sunlight was the most dazzlingly beautiful sight I have ever beheld" (Preliminary Reports, p. 101). And W.W. Wylie (see Wylie Hill) observed in 1882 that the spring's walls, "coral-like in formation and singular in shape, tinted by the water's color, are surely good representations of fairy palaces" (Yellowstone, p. 47).

**Fishing Cone**

Fishing Cone is a hot spring located in the West Thumb Geyser Basin. The Folsom party probably saw it in 1869, but the first recorded description of Fishing Cone comes from the 1870 Washburn Expedition. Party member Walter Trumball wrote about Cornelius Hedges's experience fishing:

A gentleman was fishing from one of the narrow isthmuses or shelves of rock, which divided one of these hot springs from the [Yellowstone] lake, when, in swinging a trout ashore, it accidentally got off the hook and fell into the spring. For a moment it darted about with wonderful rapidity, as if seeking an outlet. Then it came to the top, dead, and literally boiled (Overland Monthly, June 1871, p. 492).

From that time on, and perhaps even earlier, visitor after visitor performed this feat, catching fish from the cold lake and cooking them on the hook. Hayden Survey members did it in 1871, and the next year they named the spring "Fish Pot" or "Hot Spring Cone." Later names were "Fisherman's Kettle," "Fish Cone," "Fishpot Spring," "Crater Island," and "Chowder Pot." The name Fishing Cone came about gradually through the generic use of the term in guidebooks.

The cooking-on-the-hook feat at Fishing Cone soon became famous. For years, park Superintendent P.W. Norris (1877-1882) demonstrated it to incredulous tourists, and in 1894 members of Congress hooted at their colleagues who described the process. A national magazine reported in 1903 that no visit to the park was complete without this experience, and tourists often dressed in a cook's hat and apron to have their pictures taken at Fishing Cone. The fishing and cooking practice, regarded today as unhealthy, is now prohibited.

Fishing at the cone can be dangerous. A known geyser, Fishing Cone erupted frequently to the height of 40 feet in 1919 and to lesser heights in 1939. One fisherman was badly burned in Fishing Cone in 1921.

**Lodgepole Pine Forests & Fire**

This area is in a lodgepole pine forest, and the fires of 1988 greatly affected this part of the park. Several trails including the Lake Overlook Trail, Duck Lake Trail, and Riddle Lake Trail provide excellent opportunities to examine the various stages of lodgepole pine forest succession and development as well as fire ecology.

On July 12, 1988, a small fire started near the Falls River in the southeastern corner of the park. For several weeks, the fire grew slowly as crews attempted to contain it. On August 20, the winds picked up. This day would later become known as "Black Saturday" because more acres burned on this day alone than in the entire history of Yellowstone prior to this day. During that week, high winds drove the fire for miles until it approached the Lewis River. Defying all conventional understanding of fire behavior and driven by 60 mph winds that gusted to 80 mph, the fire blew all the way across the Lewis River Canyon on August 23.

Firefighters were astounded. Even the most experienced Incident Commanders had never seen fire burn like it did in 1988. While the fires shocked the nation and the world, scientists had long known that a fire of this magnitude would burn through a lodgepole pine forest like Yellowstone's on an average of once every 300 years. In fact, lodgepole pine forests are adapted to fire. Some of the pine cones need the intense heat of fire to open the cones and drop the seeds for the next generation of forests. While fire is often difficult for people to understand, for the lodgepole pine forests it is as important and necessary as other natural processes like rain and sunshine, death and rebirth.

**Cutthroat Trout Spawning Streams**

Big Thumb Creek and Little Thumb Creek along with several other intermittent streams serve as cutthroat trout spawning streams, thus as major feeding areas for both grizzly and black bears during spawning season.

**Heart Lake**

Lying in the Snake River watershed west of Lewis Lake and south of Yellowstone Lake, Heart Lake was named sometime before 1871 for Hart Hunney, an early hunter. The name does not refer to the heart-like shape of the lake. During the 1890s, historian Hiram Chittenden learned from Richard "Beaver Dick" Leigh, one of Hunney's cronies, about the naming of the lake. Evidently, Capt. John W. Barlow (see Barlow Peak), who explored Yellowstone in 1871, made the incorrect connection between the lake's name and its shape. Chittenden wrote to Barlow, who could recall nothing about the naming, but Leigh "was so positive and gave so much detail" that Chittenden concluded that he was right. Chittenden petitioned Arnold Hague of the USGS to change the spelling back to "Hart Lake," but Hague refused, convinced the shape of the lake determined the name.

As for Hart Hunney, Leigh said that Hunney operated in the vicinity of Heart Lake between 1840 and 1850 and died in a fight with Crow Indians in 1852. Chittenden thought it was possible that Hunney was one of Capt. Benjamin Bonneville's men.

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**Isa Lake**

Hiram Chittenden of the U.S. Army Corps of Engineers claimed to have discovered this lake on the Continental Divide at Craig Pass in 1891. Chittenden, who built many early roads in Yellowstone, was searching for a practicable route to locate his new road between Old Faithful and West Thumb. It was not until 1893 that Northern Pacific Railroad (NPRR) officials named the lake for Isabel Jelke of Cincinnati. Little is known about Jelke or about her relationship to Chittenden, the NPRR, and Yellowstone. Chittenden's 1916 poetic tribute to the lake and his discovery includes the puzzling line: "Thou hast no name; pray, wilt thou deign to bear/The name of her who first has sung of thee" (*Verse*, p. 53). Perhaps Isabel Jelke was already associated with the lake when Chittenden "discovered" it. Isa Lake is noteworthy as probably the only lake on earth that drains naturally to two oceans *backwards*, the east side draining to the Pacific and the west side to the Atlantic.


**Craig Pass**

Craig Pass, at 8,262 feet on the Continental Divide, is about eight miles east of Old Faithful on the Grand Loop Road. In 1891, road engineer Captain Hiram Chittenden discovered Craig Pass while he was surveying for the first road between Old Faithful and West Thumb. It was probably Chittenden who named the pass for Ida M. Craig (Wilcox), "the first tourist to cross the pass" on Chittenden's new road, on about September 10, 1891. At the time that her name was given to the pass, Ida Wilcox (1847-1930) had been married 24 years. So why did Chittenden use her maiden name? Perhaps it was to honor her singularly for being the first tourist to cross the pass. It is also possible that through his connection with the military, Chittenden knew her father (Gen. James Craig) or her brother (Malin Craig, Sr.) and was really honoring the Craig family.

**DeLacy Creek**

DeLacy Creek flows south from DeLacy Lakes to Shoshone Lake. Park Superintendent P.W. Norris named the creek in 1881 for Walter Washington DeLacy (1819-1892), the leader of a prospecting expedition that passed through the Yellowstone region in 1863. DeLacy, a surveyor and engineer, compiled the first accurate map of the Yellowstone area in 1865.

In 1863, DeLacy led a group of prospectors from Jackson Hole across the Pitchstone Plateau and discovered Shoshone Lake, which he named "DeLacy's Lake." He was the first to note the "strange" drainage of that lake south to the Snake River rather than west to the Madison River. But he did not publish his discoveries until 1876, which kept him from receiving credit for being the man who discovered Yellowstone and from leaving his name on present-day Shoshone Lake.

DeLacy also recognized the importance of Yellowstone's thermal features. In a published letter in 1869, he wrote: "At the head of the South Snake, and also on the south fork of the Madison [present-day Shoshone Lake and Firehole River], there are hundreds of hot springs, many of which are 'geysers'" (Raymond, "Mineral Resources," p. 142). In 1871, Hayden changed the name of "DeLacy's Lake" to "Madison Lake." In 1872, Frank Bradley criticized DeLacy for the "numerous errors" on his map and named the lake Shoshone.

Park Superintendent P.W. Norris felt sorry for DeLacy and named the present stream for him in 1881, stating:

The . . . narrative, the high character of its writer [DeLacy], his mainly correct descriptions of the region visited, and the traces which I have found of this party [campsite remains, etc.], proves alike its entire truthfulness, and the injustice of changing the name of De Lacy's Lake [to Shoshone Lake]; and fearing it is now too late to restore the proper name to it, I have, as a small token of deserved justice, named the stream and Park crossed by our trail above the Shoshone Lake after their discoverer (*Fifth Annual Report*, p. 44).

**Factory Hill**

Factory Hill is a 9,607-foot-high peak in the Red Mountains. By 1876, the peak was called "Red Mountain," a name that had originally been given to present-day Mount Sheridan by members of the 1871 Hayden

Survey. Eventually, the name "Red" was applied to the entire small mountain range.

Members of the Hague parties named Factory Hill in about 1885 because N.P. Langford's description of steam vents near the mountain. In the June 1871 issue of *Scribner's*, Langford had written: "Through the hazy atmosphere we beheld, on the shore of the inlet opposite our camp, the steam ascending in jets from more than fifty craters, giving it much the appearance of a New England factory village" (p. 120).

**Lewis River**

This river drains Shoshone and Lewis lakes and is a tributary of the Snake River. In 1872, members of the second Hayden survey called the river "Lake Fork" because it was a fork of the Snake that began in those two lakes. An 1876 map showed the river marked "Lewis Fork" (of the Snake), named from Lewis Lake.

**Red Mountains**

This small range of mountains, located just west of Heart Lake, is completely contained within the boundaries of Yellowstone National Park. In 1871, F.V. Hayden named present-day Mount Sheridan "Red Mountain." In 1872, members of the second Hayden Survey transferred that name to the entire range. The name was "derived from the prevailing color of the volcanic rocks which compose them" (Hayden, *Twelfth Annual Report*, p. 470). In 1878, Henry Gannett reported that there were 12 peaks in the range, with 10,308-foot-high Mount Sheridan being the highest.

**Riddle Lake**

This small lake is located about three miles south of the West Thumb bay of Yellowstone Lake. Rudolph Hering (see Hering Lake) of the Hayden Survey named Riddle Lake in 1872. Frank Bradley of the Survey wrote:

"Lake Riddle" is a fugitive name, which has been located at several places, but nowhere permanently. It is supposed to have been used originally to designate the mythical lake, among the mountains, whence, according to the hunters, water flowed to both oceans. I have agreed to Mr. Hering's proposal to attach the name to the lake, which is directly upon the [Continental] divide at a point where the waters of the two oceans start so nearly together, and thus to solve the insolvable "riddle" of the "two-ocean water" (in Hayden, *Sixth Annual Report*, p. 250).

This "insolvable riddle" of the "mythical lake among the mountains" where water flowed to both oceans probably originated from (or at least was fueled by) "Lake Biddle," which appeared on the Lewis and Clark map of 1806 (named after their editor, Nicholas Biddle). The lake then appeared on the Samuel Lewis version of the map in 1814 as "Lake Riddle." Riddle Lake is not "directly on the divide"; it drains to the Atlantic Ocean by way of its outlet, Solution Creek, which flows to Yellowstone Lake. Thus, the name was the result of a mapping error combined with fur-trapper stories of two-ocean water.

**Shoshone Lake**

Shoshone Lake, the park's second largest lake, is located at the head of the Lewis River southwest of West Thumb. It is possible that fur trapper Jim Bridger visited this lake in 1833, and fellow trapper Osborne Russell certainly reached the lake in 1839. According to James Gemmell, he and Bridger visited the lake in 1846 (in Wheeler, "The Late James Gemmell," pp. 131-136). Gemmell referred to it then as "Snake Lake," a name apparently used by the hunters.

Fr. Pierre-Jean DeSmet's 1851 map showed a "DeSmet's L." in the approximate position of present-day Shoshone Lake. In 1863, prospector Walter DeLacy visited the lake and named it "DeLacy's Lake." The lake was also called "Madison Lake" because it was erroneously thought to be the head of the Madison River. Cornelius Hedges of the 1870 Washburn Expedition named the lake after the party's leader, Gen. H.D. Washburn. By 1872, Shoshone Lake had already borne four or five names when Frank Bradley of the second Hayden Survey added a sixth. Bradley wrote: "Upon crossing the divide to the larger lake, we found it to belong to the Snake River drainage, and therefore called it Shoshone Lake, adopting the Indian name of the Snake [River]" (*American Journal of Science and Arts*, September 1873, p. 201). Bradley's name thus returned in spirit to Gemmell's and the fur trappers' name "Snake Lake."

Park Superintendent P.W. Norris thought that the name Shoshone Lake was "a fitting record of the name of the Indians who frequented it" (*Fifth Annual Report*, p. 44). The Shoshones lived mainly to the west and south of present-day Yellowstone National Park, but there is evidence that they occasionally entered the area and may have visited the lake each summer. Their arrowheads and other artifacts have been found in various places around the park.

The meaning of "Shoshone" has long been debated. Some authorities believe that the word represented an uncomplimentary Sioux expression given to the tribe by their Crow neighbors. David Shaul, a University of Arizona linguist, believes that the word literally translates as "those who camp together in wickiups" or "grass house people."

Shoshone Lake is 205 feet at its maximum depth, has an area of 8,050 acres, and contains lake trout, brown trout, and Utah chubs. Originally, Shoshone Lake was barren of fish owing to waterfalls on the Lewis River. The two types of trout were planted beginning in 1890, and the Utah chub was apparently introduced by bait fishermen. This large lake is the source of the Lewis River, which flows to the Pacific Ocean via the Snake River system. The U.S. Fish and Wildlife Service believes that Shoshone Lake may be the largest lake in the lower 48 states that cannot be reached by road. No motorboats are allowed on the lake.

**Shoshone Point**

This point on the Grand Loop Road is located halfway between West Thumb and Old Faithful. It was named in 1891 because Shoshone Lake could be seen from here. In that year, Hiram M. Chittenden began constructing the first road between Old Faithful and West Thumb, and he probably named the point himself.

Shoshone Point was the scene of a stagecoach holdup in 1914. One bandit, armed and masked, stopped the first coaches of a long line of vehicles and robbed the 82 passengers in 15 coaches of $915.35 and about

$130 in jewelry. Edward Trafton was convicted of the robbery and sentenced to five years in federal prison at Leavenworth, Kansas.

**Snake River**

The Snake River is a major tributary of the Columbia River and has its headwaters just inside Yellowstone on the Two Ocean Plateau. Various stretches of this important river have had at least 15 different names. The name, which comes from the Snake (Shoshone) Indians, was applied to the river as early as 1812, making it one of the oldest place names in the park. Shoshone Indians referred to some parts of the stream as "Yampa-pah," meaning "stream where the Yampa grows" (yampa is a food plant) and later as "Po-og-way" meaning "road river" (a reference to the Oregon Trail, which followed sections of the river) or, less often, "sagebrush river."

In 1872, the second Hayden Survey to Yellowstone gave the name "Barlow's Fork" (of the Snake) to the part of the river above the mouth of Harebell Creek, honoring J.W. Barlow who had explored that area in 1871. The group thought that Harebell Creek was the Snake River's main channel, an interpretation of the stream that was changed by the Hague surveys during the 1880s. Frank Bradley of the 1872 survey gave the name "Lewis Fork" (of the Snake) to the present-day Lewis River. The Snake name comes from sign language--a serpentine movement of the hand with the index finger extended--that referred to the weaving of baskets or grass lodges of the Snake or Shoshone Indians.

The source of the Snake River was debated for a long time. The problem was to find the longest branch in the Two Ocean Plateau, which is thoroughly crisscrossed with streams. Current maps show the head of the Snake to be about 3 miles north of Phelps Pass, at a point on the Continental Divide *inside* Yellowstone National Park. In 1926, John G. White showed a photo in his hand-typed book *Souvenir of Wyoming* of the "true source of the Snake," writing that "it is near the Continental Divide upon two ocean plateau. A number of springs gush forth upon the hillside. Uniting, they form a small stream, which, at an altitude of two miles above sea level, begins its arduous journey...to the Pacific" (p. 309). The Snake River is the nation's fourth largest river; 42 miles of it are in Yellowstone National Park.

# Grant Village Area Geologic Highlights

### West Thumb Geyser Basin

The West Thumb Geyser Basin, including Potts Basin to the north, is unique in that it is the largest geyser basin on the shores of Yellowstone Lake. The heat source of the thermal features in this location is thought to be relatively close to the surface, only 10,000 feet down! The West Thumb of Yellowstone Lake was formed by a large volcanic explosion that occurred approximately 150,000 years ago (125,000-200,000). The resulting collapsed volcano, called a caldera ("boiling pot" or caldron), later filled with water forming an extension of Yellowstone Lake. The West Thumb is about the same size as another famous volcanic caldera, Crater Lake in Oregon, but much smaller than the great Yellowstone caldera which formed 600,000 years ago. It is interesting to note that West Thumb is a caldera within a caldera.

Ring fractures formed as the magma chamber bulged up under the surface of the earth and subsequently cracked, releasing the enclosed magma. This created the source of heat for the West Thumb Geyser Basin today.

### West Thumb Thermal Features

The thermal features at West Thumb are found not only on the lake shore, but extend under the surface of the lake as well. Several underwater geysers were discovered in the early 1990s and can be seen as slick spots or slight bulges in the summer. During the winter, the underwater thermal features are visible as melt holes in the icy surface of the lake. The ice averages about three feet thick during the winter.

# Grant Village Area Historic Highlights

**West Thumb Ranger Station**

Built in 1925, with the open breezeway enclosed in 1966, the West Thumb Ranger Station is an excellent example of historic architecture associated with ranger stations in Yellowstone.

**Archeological Resources**

The shoreline of West Thumb is the location of several Native American hearth sites providing evidence that native peoples once used this area as a travel route, camping ground, and food-gathering area.

# Grant Village Area NPS Visitor Facilities

### Grant Village Visitor Center


The Grant Visitor Center is located on the shore of the West Thumb of Yellowstone Lake one mile off of the main park road at Grant Village Junction. The visitor center and development are named for President Ulysses S. Grant, eighteenth president of the United States, who signed the bill creating Yellowstone National Park in 1872. The facility was constructed during the 1970s and, along with the entire Grant development, was and is a controversial Yellowstone development due to its location in prime grizzly bear habitat (the area is the location of several major cutthroat trout spawning streams).

The visitor center hosts an exhibit that interprets fire's role in the environment, using the fires of 1988 as the example. The movie **Ten Years after Fire** is shown on a regular schedule throughout the summer months. The Yellowstone Association has a sales area in the lobby of the visitor center.

### West Thumb Information Station

The historic West Thumb Information Station also serves as a Yellowstone Association sales outlet as well as a meeting place for interpretive walks and talks during the summer season. During the winter, this facility serves as the West Thumb Warming Hut. Visitors can warm up, read interpretive exhibits on history and a variety of winter topics, and get their questions answered by an Interpretive staff person.

### Backcountry Office

The Division of Resource Management and Visitor Protection operates a backcountry office that is intermittently staffed during the spring and fall (before and after the visitor center is open). The office is near the gas station and Hamilton Store, 0.75 miles from the Grant Village Junction on the road to Grant Village.

# Frequently Asked Questions at Grant Village

**Q. Where can I see wildlife around Grant?**

**A.** Bison, elk, and mule deer can often be viewed around the West Thumb Geyser Basin and in meadows along Big Thumb Creek during the summer. Waterfowl and raptors, such as bald eagles and osprey, can be observed along the lake shore. Ground squirrels, marmots, red squirrels, and other small mammals are common throughout the Grant area. During the winter months, river otters are commonly seen along the shores of West Thumb where underwater thermal features melt holes in the frozen lake.

**Q. How deep is Abyss Pool?**

**A.** Abyss has been plumbed to about 53 feet. Black Pool is approximately 35-40 feet deep.

**Q. How hot are the springs at West Thumb?**

**A.** Temperatures vary from superheated springs (202°-204°F) to relatively cool springs with temperatures of less than one hundred degrees.

**Q. The West Thumb Paint Pots aren't what I remember from years past. What happened?**

**A**. Like all thermal features in Yellowstone, the West Thumb Paint Pots are subject to change over time. These features became less active and more fluid in the early 1970s. During the past 4-5 years, they have shown renewed vigor with new mud cones forming, some of which periodically throw mud into the air.

**Q. Why doesn't the Grant Campground open until June 21?**

**A.** Grant was developed in prime grizzly bear habitat. There are five streams in this area that cutthroat trout use for spawning during late May and early June, thus bears, both grizzly and black, frequent this area to feed on spawning trout. To help prevent any bear/human conflicts, the campground doesn't open until most of the spawn is over.

**Q. What happened to the development at West Thumb?**

**A.** West Thumb used to be home to a gas station, a marina, a photo shop, cafeteria, more than 100 cabins, and even a tennis court! In an effort to protect the fragile thermal features at West Thumb and to improve the quality of visitor experience here, all of the development except for the historic log Ranger Station and log restrooms were removed. The development at Grant mitigated the loss of facilities at West Thumb.