Crater Lake is unpredictable. No matter how many times you’ve seen it before, you can never be sure exactly what to expect on your next visit to the rim. The lake’s appearance is ever-changing and often surprising. This is especially true in the winter—perhaps the best time of year to witness Crater Lake at its most wild and beautiful.

The lake’s character depends partly on the wind. On many winter days, strong winds whip across the water. The strongest gusts materialize as whitecaps and can be seen marching, like angry armies, across the width of the lake. Calm days in the winter are few and far between, but, when they occur, the scene is entirely different. The lake becomes a mirror and reflects the sky in perfect symmetry; the air is so quiet you can hear a pine needle drop.

The lake’s appearance (and frequent disappearance) also depends on cloud cover. Nearly 50% of the time in the winter and early spring, storms completely hide the lake from view. While disappointing for visitors who have driven hours to get here, it’s during these periods of rain and snow that the lake is replenished. Crater Lake wouldn’t be America’s deepest lake without such wet winters, which dump an average of 43 feet (13 meters) of snow at Park Headquarters.

Clouds also create scenes of stunning drama. When storms end, the lake’s features slowly reveal themselves to fortunate onlookers. And once every few years, some lucky visitors reach the rim to find a “smoking cauldron”—the crater filled with fog, under a blue sky (see photo on back page). This occurs when cold, moist air becomes trapped in the caldera during a temperature inversion.

Sometimes, too, Crater Lake is masked by ice. It forms along the shore during cold snaps. Seeing the lake entirely frozen over, however, is a once-in-a-lifetime experience (the lake’s tremendous depth makes its surface freeze-resistant). In 1949, the last time the lake became ice-bound, it froze for 2½ months and a thick layer of snow accumulated on top. Typically, though, seeing bergs of snow and ice in the water is simply an indication that an avalanche has recently occurred on the inner walls of the caldera.

With so many variables (and we haven’t even mentioned the color of the water, which can vary from bright blue to slate gray, with hues of red, orange, and purple at sunrise and sunset), Crater Lake is never the same lake twice. And thank goodness! Its unpredictability is one of its finest attributes, one that makes visiting (and re-visiting) the park such a delightful and rewarding activity.

Crater Lake National Park protects the deepest lake in the United States. Fed by rain and snow (but no rivers or streams), the lake is considered to be the clearest and clearest large body of water in the world. The lake rests inside a caldera formed 640,000 years ago when a 12,000-foot-tall (3,600-meter) volcano collapsed following a major eruption. The eruption may have been the largest in North America in the past 600,000 years. Later eruptions formed Wizard Island, a cinder cone near the southwest shore.

Today, old-growth forests blanket the volcano’s outer slopes, harboring more than 700 native plant species and a wide variety of animals, including several that are rare or endangered.

### Park Profile

- **Crater Lake National Park** protects the deepest lake in the United States. Fed by rain and snow (but no rivers or streams), the lake is considered to be the clearest and clearest large body of water in the world.
- The lake rests inside a caldera formed 640,000 years ago when a 12,000-foot-tall (3,600-meter) volcano collapsed following a major eruption. The eruption may have been the largest in North America in the past 600,000 years. Later eruptions formed Wizard Island, a cinder cone near the southwest shore.
- The lake is fed by rain and snow, and is considered to be one of the clearest lakes in the world.
- The lake is 1,943 feet (592 meters) deep and has a volume of 5 trillion gallons (19 trillion liters).
- The lake is a major source of drinking water for the region.

### Reflections

- **Lake volume:** 5 trillion gallons (19 trillion liters)
- **Lake width:** 4.5 to 6 miles (7 to 10 km)
- **Lake depth:** 1,943 feet (592 meters)
- **Size:** 183,000 acres (74,060 hectares)
- **Established:** 1902

### Snowshoe with a Park Ranger

Ranger-led snowshoe walks are a fun way to experience the winter wonderland of Crater Lake National Park. This winter, if staffing and snow conditions allow, you will take place on Saturdays, Sundays, and holidays from November 23 through April 26. Walks will also likely be offered daily from December 21 through January 5 (except on Christmas Day) and from March 20 through March 29. Snowshoes are provided free of charge and no previous snowshoeing experience is necessary.

The walks start at 1:00 pm, last 2 hours, and cover 1 to 2 miles (1.6–3.2 km) of hilly terrain. The route is up to the ranger, but most walks begin at Rim Village and explore the forests and meadows along the rim of the caldera. Along the way, participants discover how winter affects Crater Lake and the park’s plants and animals.

Space on each tour is limited, and advance reservations are recommended. You can sign up at the Steel Visitor Center or by calling 541-594-3100. Participants must be at least 8 years old, healthy enough for a moderate-to-strenuous hike, and have warm clothing and water-resistant footwear.

### Watch the Park Film

Curious to learn more about Crater Lake? Stop by the Steel Visitor Center to watch the park’s 22-minute introductory film, shown every half hour. It explores the park’s significance and the wonder that Crater Lake has inspired for generations. The film, entitled Crater Lake: Into the Deep, includes dramatic underwater footage along with state-of-the-art animation that depicts the lake’s violent, volcanic past.
Facilities

**Restrooms**
There is a 24-hour restroom at Rim Village. Restrooms can also be found inside the Steel Visitor Center and Rim Village Gift Shop during business hours.

**Rim Café & Gift Shop**
The café & gift shop is open daily except on November 28, December 25, and on days when the road to Rim Village is closed due to snow. Hours of operation:
- Nov. 4–March 12: 10 a.m.–4 p.m.
- March 13–May 14: 10 a.m.–4 p.m.
- May 15–June 4: 10 a.m.–6 p.m.

The café serves quick meals including hot sandwiches, chili, and soup. Beverages include hot chocolate, coffee, juice, and soft drinks. The large gift shop offers a wide selection of souvenirs, as well as winter clothing and snowshoe rentals (see next page).

An observation room on the top floor of the café provides partial views of Crater Lake (depending on regulations, stop by the Ranger Center of the administration building for more information). It also features a few exhibits and an information desk for volunteers on weekends.

**Steel Visitor Center**
The Steel Visitor Center at Park Headquarters is open every day of the year except December 25. Winter hours are 10:00 a.m.–4:00 p.m., becoming 9:00 a.m.–5:00 p.m. in mid-April.

Rangers are available to answer questions, provide weather forecasts, and other extended forecast items. The observation room is also available for sale (see back page).

Kids ages 6 through 12 can earn an official Junior Ranger badge by completing a free activity book. A 22-minute film, Into the Deep, is shown every half hour. The film explores the park’s significance and the lake’s volcanic past.

**Activities**

**Lake Viewing**
When skies are clear, excellent views of Crater Lake can be enjoyed at Rim Village. During storms, however, the lake is typically obscured by clouds. The lake is completely “invisible” about 50% of the time in the winter and early spring. In avoid disappointment, check the weather forecast before you leave home. To check visibility at Rim Village, visit the park’s website (www.nps.gov/crla) to view a webcam pointed toward the lake.

A partial view of Crater Lake can usually be obtained from an observation room on the top floor of the Rim Café & Gift Shop. The observation room is accessible via elevators. For a better view of the lake (and when deep snow blocks the view from the observation room), you’ll need to climb up a snowbank and take 20 to 30 steps across the snow. The snow ramp across from the Rim Village restroom building provides the easiest access to the top of the snow, which can be 10 to 15 feet (3 to 4.5 meters) deep. Be careful—the snow ramp can be icy and slippery, and dangerous snow cornices overhanging the rim of the crater may be difficult to spot. Stay back from the edge!

**Snowmobiling**
In the winter, the park’s North Entrance Road is groomed for snowmobiles, which may travel as far as the rim of Crater Lake. Snowmobiles must stay on the groomed and marked route; they are not allowed on the Rim Drive, and off-route travel is prohibited.

The snowmobile route is open as conditions permit, typically from December through March.

**Backcountry Camping**
Backcountry is allowed in the park year-round. Winter offers well-prepared skiers and snowshoers opportunities to experience occasions of unique beauty and solitude. All campers must obtain a free backcountry permit, in person from the Ranger Station at Park Headquarters. The Ranger Station is located 100 yards (90 meters) south of the Steel Visitor Center and is open every day from 8:00 a.m. to 4:00 p.m.

Vehicles must be left overnight at Park Headquarters (not at Rim Village). The most popular overnight trip is up the Raven Trail, out and back along the West Rim Drive, then back down the Raven Trail. The most popular extended trip is the “332-mile” (50-km) circuit around Crater Lake (see box, top right). Snow camping is required; there are no public huts or shelters. Camps must be at least 1 mile (1.6 km) from the nearest plowed road, out of sight of any ski trail or route, and at least 100 feet (30 meters) back from the edge of the caldera. For trip-planning advice and a complete list of regulations, stop by the Ranger Station or call 541-594-3060.

**Winters Closures**
Many park facilities are closed in the winter and early spring. Here are some projected operating dates for 2020:

- May 15–Oct. 11: Crater Lake Lodge
- May 22–Oct. 12: Mazama Village Store
- May 22–Sept. 27: Rim Visitor Center
- May 22–Oct. 12: Mazama Gas Station
- May 22–Oct. 12: Mazama Visitor Store
- May 22–Oct. 12: Mazama Trailhead
- June 12–Sept. 27: Rim Village Campground
- June 26–Sept. 27: Rim Village Campground
- June 26–Sept. 27: Trolley Tours
- July 1–Oct. 12: Lost Creek Campground
- June 26–Sept. 27: Smmitt Overlook

For more information, please call 541-799-3333 or visit www.diamondlake.net.

**Roads & Travel**

The road from Highway 62 to Park Headquarters (not at Rim Village) is groomed for snowmobiles, with the exception of the Crater Lake Snowmobile Trail, which is open for snowmobiles. The snowmobile route is open as conditions permit, typically from December through March.

**Accessibility**
The Steel Visitor Center and Rim Village Café & Gift Shop are accessible to people with mobility impairments. Weather permitting, panoramic views of Crater Lake can be enjoyed from the open roof of the gift shop, accessible via elevator.

**Drinking Water**
There is a fountain and bottle-filling station inside the Steel Visitor Center.

**Drones**
The operation of remote controlled aircraft in the park is prohibited. Please report sightings to the nearest plowed road.

**Emergencies**
Dial 911 to report any emergency, 24 hours a day. An emergency phone is located outside the “snow tunnel” entrance to the administration building. Fax is available at the Steel Visitor Center or nearby Ranger Station.

**Entrance Fee**
In the winter (November 1 through April 30), the entrance fee is $15 per car, good for 7 days. You can pay by cash or credit card. Your fee goes to support your national facilities. Thank you for your cooperation!

**Gasoline**
Gasoline is available in the park at the Diamond Lake Resort, 5 miles (8 km) north of the park, has snowmobiles available for rent. Renting a 1- or 2-person snowmobile costs $175 for 2 hours, $225 for 4 hours, $275 for 4 hours, or $425 for 8 hours, plus the cost of fuel. Significant discounts may be available for overnight guests. For more information, call 541-799-3333 or visit www.diamondlake.net.

**Grants**
Grants are available for research projects. For more information, contact the National Park Service, Grants Management Office, 1325 East Street, Rm. 330, Eureka, CA 95501.
**Ski Trails**

Cradle Lake National Park features many marked and unmarked ski trails on the Rim Village route. The most popular are described below. These trails are not groomed, and some may be hard to follow. Ask at the Steel Visitor Center for more information.

**EASIER TRAILS**

**Mazama Loop**

Distance: 1.7 mi. (2.7 km) loop trail

Recommended for beginning skiers, this loop follows Mazama Rim Drive and ends at Mazama Rim Drive. It is suitable for all abilities, as all areas are accessible.

**West Rim Drive**

This is the park's most popular ski route, providing many different views of Crater Lake and Wizard Island. It follows the West Rim Drive, which is unpaved from November to mid-April. The route is not marked, but the path is clearly visible. This trail is generally apparent. The route features gently rolling terrain and is suitable for skiers of all abilities, as long as snow conditions are good. When dry, the route can be approaches, especially just west of Crater Lake Village. It can also be windy and exposed, but skiers should be able to find some protection.

**Discovery Point**

Distance from Rim Village: 1.2 mi. (1.9 km) loop trail

A short, dirt road leads to a scenic viewpoint and marks the spot where gold prospector John Hileman first set eyes on Crater Lake in 1858. This trail features a short, steep climb, with beautiful views of the lake.

**West Rim Drive**

The East Rim Drive is a good alternative to the West Rim Drive. This route provides protection from the elements and, upon reaching Sun Notch, a spectacular view of Crater Lake and the Phantom Ship. The route is not marked, but skiers should be able to follow the path of the underlying road, which is unpaved from September to mid-April. The route is marked “intermediate” because it features longer and steeper climbs than the West Rim Drive. This route is suitable for skiers and snowboarders looking for a short, invigorating work-out. Views of the surrounding terrain are visible from the summit.

**Vidae Falls**

Distance from trailhead: 3.1 mi. (5.0 km)

This route offers a challenging workout for skiers looking for a short, invigorating work-out. Views of the surrounding terrain are visible from the summit.

**Sun Notch**

Distance from trailhead: 4.5 mi. (7.2 km)

To view Crater Lake, skiers must continue on to Sun Notch, gaining an additional 550 feet (165 meters) of elevation. Skiers must also cross—or bypass—a second

**ADVANCED TRAILS**

**Raven Trail**

Distance: 3 mi. (7.6 km)

A more challenging route for expert skiers, the Raven Trail is suitable for experienced skiers looking for a challenging workout.

**Garfield-Applegate Ridge**

Distance from trailhead: 6.12 mi. (10 km)

This route offers a challenging workout for skiers looking for a short, invigorating work-out.

**Circling the Lake**

Each winter, approximately 100 skiers and 75 snowshoers travel all the way around Crater Lake. It’s a trip that can be exceptionally rewarding, with unforgettable views. It can also be physically and mentally challenging—a test of endurance and outdoor skills.

When the weather is clear and snow conditions are good, the 31 mi. (50 km) loop takes an average of 3 days to complete. Stumbles, falls, and broken equipment are common. You can’t turn back or spend extra nights. The route is mapped, hard to follow in places, and crossed by several avalanche paths. Those attempting the trip should be experienced in winter travel and have avalanche safety training. A backcountry permit is required.

Although the loop can typically be done in any time between late November and early May, the most popular months are March and April. Spring provides more hours of daylight than the winter months and longer periods of clear weather.

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**Skiing**

Skiing is prohibited on Highway 62, the road to Rim Village, and in parking lots. Skiing inside the caldera is strictly prohibited. Skiers are not permitted to ski on roads or parking lots that are open to automobile traffic. Ask at the Steel Visitor Center for trail recommendations.

**Snowshoeing**

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Volunteer Your Time
Looking for a hands-on way to help the park? Consider sharing your time and talents as a Crater Lake VIP (Volunteer-In-Parks). Full-time volunteers are needed in the summer and winter to help staff visitor centers and present interpretive programs. Opportunities are advertised several times each year at www.volunteer.gov. Volunteers are provided free housing in exchange for 3 months of service. To volunteer voluntarily, join The Friends of Crater Lake, a non-profit organization whose members help with special projects and events and operate a winter information desk at Rim Village. Learn more at www.friendsofcraterlake.org. Or join the Crater Lake Ski Patrol, whose members assist winter visitors and maintain the park’s cross-country ski trails. Identification by their bright red parkas, they receive training in wilderness first aid, search and rescue, map and compass use, and avalanche safety in exchange for 6 days of service. For more information, visit www.craterlakeski.patrol.weebly.com.

Report Your Wildlife Sightings
Scientists need your help! If you spot any interesting animals during your visit, or if you witness any unusual behavior, please let us know! Your observations will help us learn which animals live in the park and how they use it. In 2018, visitors and employees submitted 112 reports of 45 different species, including the black-backed woodpecker, sage thrasher, short-horned lizard, mountain lion, and gray wolf. To help your sighting, email craterlake@nps.gov or find a ranger at a visitor center. Let us know the date and precise location of your encounter, a detailed description of what you saw, and your name and contact info, in case we have follow-up questions. And if you captured any photos, send them along (ideally with permission for us to use them in reports and publications). Photographic evidence can be very important in confirming the identity of some species. Just remember that approaching, feeding, or disturbing wildlife is strictly prohibited—so please keep your distance. Thanks for your participation!

Buy Crater Lake License Plates
If you live in Oregon, consider choosing Crater Lake license plates for your vehicle. For a one-time charge of $30, you can outfit your car with these beautiful plates while supporting park projects. You can purchase them at any DMV office, not just when buying a new vehicle or renewing your registration. Visit any DMV office or www.oregon.gov/dot/dmv for details. Proceeds go into an endowment that funds the operation of the park’s Science and Learning Center—two historic structures near Park Headquarters (the original Superintendent’s Residence and Chief Naturalist’s Residence), which now provide living and working space for visiting scientists, teachers, and artists. The Science and Learning Center draws researchers and educators to Crater Lake from around the world, encouraging them to use the park as an outdoor laboratory and classroom. For more information, visit www.nps.gov/crlc/craterlake.

Contribute to the Crater Lake Trust
The Crater Lake National Park Trust is a nonprofit organization that raises private funds to support park projects and connect the park with surrounding communities. Each year, for example, it helps fund field trips to the park for more than 5,000 grade-school students. In a program called “Classroom at Crater Lake,” kids engage in hands-on science and learn about wildlife, old-growth forests, and winter ecology. Learn more at www.craterlaketrust.org. Share your love of the park by making a tax-deductible gift.

Share Your Comments
Whether you have a complement, concern, or suggestion, we’d like to hear from you! This is your park, and we value your input on how best to manage it. To provide feedback, complete a comment form at the visitor center or send an email (or letter) to the park’s Superintendent (see address on page 2).

Climate Chart
Crater Lake National Park is one of the snowiest inhabited places in America. Storms from the Pacific Ocean dump an average of 43 feet (13 meters) of snow at Park Headquarters. That’s equivalent to 1.4 inches (3.6 cm) of snow every day for an entire year! The park’s ongoing snowfall is a result of its location at the crest of the Cascade Mountains.

Since 1931, however, when rangers began keeping track, snowfall has been declining. In the total amount of precipitation falling in the park hasn’t changed much, but warmer temperatures have been causing a larger proportion of it to fall as rain.

Average Annual Snowfall at Park Headquarters, by Decade:


<table>
<thead>
<tr>
<th>Decade</th>
<th>Inches (Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930s</td>
<td>614 inches (1,560 cm)</td>
</tr>
<tr>
<td>1940s</td>
<td>623 inches (1,582 cm)</td>
</tr>
<tr>
<td>1950s</td>
<td>572 inches (1,453 cm)</td>
</tr>
<tr>
<td>1960s</td>
<td>507 inches (1,287 cm)</td>
</tr>
<tr>
<td>1970s</td>
<td>495 inches (1,257 cm)</td>
</tr>
<tr>
<td>1980s</td>
<td>475 inches (1,207 cm)</td>
</tr>
<tr>
<td>1990s</td>
<td>430 inches (1,092 cm)</td>
</tr>
<tr>
<td>2000s</td>
<td>455 inches (1,156 cm)</td>
</tr>
<tr>
<td>2010s</td>
<td>410 inches (1,039 cm)</td>
</tr>
</tbody>
</table>

Growing Conditions

- **Park Headquarters:**
  - **Average Annual Snowfall:** 614 inches (1,560 cm)
  - **Average Snow Depth:** 24 inches (61 cm)
  - **Average Snow Cover:** 4 months (120 days)

- **Rim Village:**
  - **Average Annual Snowfall:** 572 inches (1,453 cm)
  - **Average Snow Depth:** 20 inches (51 cm)
  - **Average Snow Cover:** 3 months (90 days)

- **Little Crater:**
  - **Average Annual Snowfall:** 507 inches (1,287 cm)
  - **Average Snow Depth:** 16 inches (41 cm)
  - **Average Snow Cover:** 2 months (60 days)

- **North Entrance:**
  - **Average Annual Snowfall:** 495 inches (1,257 cm)
  - **Average Snow Depth:** 16 inches (41 cm)
  - **Average Snow Cover:** 1 month (30 days)

- **Grebler’s Hotel:**
  - **Average Annual Snowfall:** 430 inches (1,092 cm)
  - **Average Snow Depth:** 13 inches (33 cm)
  - **Average Snow Cover:** 3 weeks (21 days)

- **North Crater:**
  - **Average Annual Snowfall:** 455 inches (1,156 cm)
  - **Average Snow Depth:** 17 inches (43 cm)
  - **Average Snow Cover:** 2 months (60 days)

- **White Cottage:**
  - **Average Annual Snowfall:** 410 inches (1,039 cm)
  - **Average Snow Depth:** 12 inches (30 cm)
  - **Average Snow Cover:** 1 month (30 days)

Data is from Park Headquarters, 1931-2018