



PEAK EXPERIENCES

November 2016 - May 2017

The Quiet Chorus

Chickadees chirping in the crisp winter air, snowshoes crunching on freshly formed frost, the rhythmic trickle of icicles forming—these are the sounds that make a winter visit to Lassen Volcanic National Park an enchanting experience.

In the wake of the hustle and bustle of a celebratory centennial summer, Lassen falls under a winter hush, where natural sounds take center stage. The buzz of passing cars is replaced by the gentle swish of skis and sleds on the snow-covered park highway.

Although vehicle access is limited to the park's northwest and southwest entrances in the winter season, you don't have to go far to experience the power of sound. At Lassen's year-round Kohm Yah-mah-nee Visitor Center, you can explore the sounds of the red fir forest on a ranger-led snowshoe walk. Or, head to the park's northwest entrance and enjoy the symphony of Manzanita Lake's year-round residents on a self-guided ski or snowshoe tour.

Whether you've come to Lassen this winter for sightseeing, solitude, adventure, or play—I hope that you will take a moment to experience Lassen's winter soundscape. I think you will find that the deep winter snow helps to amplify even the most subtle sounds. And, when you listen closely enough, you might just hear the gentle rhythm of your own heartbeat joining the quiet chorus.



-Steve Gibbons, Superintendent

Listening to Nature's Heartbeat

If a tree falls in a forest and no one is around to hear it, does it make a sound? Most of us have debated this very question once or twice, perhaps around a crackling campfire. In addition to providing some great fodder for late-night philosophizing, the rhetorical question helps illustrate an inconspicuous natural resource.

Natural soundscapes are the human, or animal, perception of physical sound sources. This includes both natural sounds (a tree falling, wind, animal calls) and cultural and historical sounds (tribal ceremonies, battle reenactments). Like beauty, soundscapes are in the mind of the beholder. If no human is around to hear a tree fall, the resulting crash is not a part of the human soundscape. It is however, a pretty significant part of the soundscape of the squirrel standing in the tree's path.

Like beauty, soundscapes are in the mind of the beholder.

Sound, like the availability of nesting materials or food sources, plays an important role in the ecosystem. Activities such as finding desirable habitat and mates, avoiding predators, protecting young, and establishing territories are all somewhat dependent on natural soundscapes.

For humans, sound adds a richness to our experiences that sight alone cannot provide. In many cases, hearing is the only method to experience certain aspects of our world. At Lassen, you are much more likely to hear the low, booming mating call of the sooty grouse or the distinctive deep hoot of a great horned owl, than you are to catch a glimpse of these elusive forest dwellers.

Sound has a powerful effect on our emotions, attitudes, and memories. The unexpected snap of a twig ignites a tiny spark of adrenaline as we imagine animals moving nearby. The steady rhythm of rain transports us to our favorite cozy place—whether it be cuddled in a tent or curled up by a fire.

Lassen Volcanic National Park protects soundscapes just as it does wildlife habitats and dark night skies. Like the light pollution that threatens our view of the stars, noise impacts our ability to perceive and enjoy natural sounds. Similarly, both light pollution and

noise impact natural ecosystems including predator-prey relationships, bird migration, and animal reproduction.

Recent studies are finding that some birds in noisy environments have taken to singing at night in order to be heard over the din of the city. In general, a growing number of studies indicate that wildlife is stressed by a noisy environment. When these effects are combined with other stressors such as winter weather, disease, and food shortages, sound impacts can have important implications for the health and vitality of wildlife populations within our parks.

Like wildlife, people are stressed by a noisy environment. You probably came to Lassen Volcanic this winter with natural quiet in mind. Perhaps you came to enjoy a delicate bird song or the soothing effect of silent snowfall. A national survey found that 95% of Americans say one of the most important reasons for preserving national parks is to provide opportunities to experience natural peace and the sounds of nature.

In our increasingly noisy world, natural quiet is a diminishing commodity. As the National Park Service enters its second century, it must address the growing noise that has come with dramatic increases in traffic, the explosion of digital gadgets, and our increasing capacity to reach once-remote areas.

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Today, noise levels in park transportation corridors are 1,000 times the natural level. Road noise has been shown to extend over a mile into the forest. Air transportation, as well, can affect life on the ground. A member of the National Parks Overflights Advisory Group points out that “there are many places that look very much like they did 200 years ago, but very few that sound like they did even twenty years ago.”

Increasingly, careful consideration of the impacts of human-generated noise on wildlife and visitor experience is a critical component of park management. Some noises result from park operations like plowing snow or responding to emergencies, others come from visitor vehicles and voices, and some originate from outside park boundaries.

Continued on page 5





GENERAL INFORMATION



Lassen Volcanic National Park
National Park Service
U.S. Department of the Interior

Visitors are encouraged to contact the park via email during the winter season. Recorded information is available by phone.

Email Address
lavo_information@nps.gov

Website
www.nps.gov/lavo

Information Line
Phone: (530) 595-4480
Fax: (530) 595-6139

Mailing Address
Lassen Volcanic National Park
P.O. Box 100
Mineral, CA 96063-0100

Social Media
facebook.com/LassenNPS
youtube.com/LassenNPS
twitter.com/LassenNPS
flickr.com/LassenNPS
instagram.com/LassenNPS







Hydrothermal Areas

Sulphur Works is accessible to visitors year-round (snow travel required). For your safety, do not travel or camp near hydrothermal areas. The snow in these areas can look solid but may actually be a weak snow layer hiding pools of acidic boiling water. **Walking too close to these areas has resulted in severe injuries for previous visitors.**

Emergencies

If you have an emergency call 911. If phone service is not available, contact a park employee, go to the Loomis Ranger Station, or use the emergency phone in the 24-hour vestibule of the Kohm Yah-mah-nee Visitor Center.



Road Closures

Lassen National Park Highway usually closes by mid-November for the winter season due to snow. Butte Lake, Warner Valley, and Juniper Lake roads close to vehicle traffic for the season due to snow around late October and usually reopen in late June or early July. Plowing on the park highway usually begins in early April and continues through late June. See more about spring road clearing on page 8.

Lost & Found

The park's lost and found is located in the Kohm Yah-mah-nee Visitor Center. Please call (530) 595-4480.

Gasoline

There is no fuel in the park during the winter season. The nearest gas station from the southwest entrance is in Chester, 30 miles east on SR-36. The nearest gas stations from the Manzanita Lake entrance are in Shingletown, 17 miles west on SR-44, or in Old Station, 13 miles east on SR-44.

Food

Lassen Café is open on weekends and selected weekdays only. See page 4 for more information. The nearest areas for food and supplies are Mineral, Chester, Shingletown, and Old Station (see above for distances).

Phones

Cell phone coverage in the park is spotty. An emergency phone is located in the 24-hour vestibule of the Kohm Yah-mah-nee Visitor Center (911 only).

Entrance Fees

Entrance fees are required year-round. The 1-7 day vehicle fee is \$10 between December 1 and April 15. This fee changes to \$20 between April 16 and Nov 30. Display your fee receipt, Lassen Annual pass, or Interagency Pass on your vehicle's dashboard.

Firearms

Visitors are responsible for understanding and complying with all applicable State of California, local, and federal firearms laws. Federal law prohibits firearms in certain facilities in this park identified by posted signs at public entrances. For more information, visit oag.ca.gov/firearms or contact the chief park ranger at (530) 595-6100.

Pets in the Park

Activities with pets are limited at Lassen. Pets must be restrained at all times and are not permitted in the park backcountry (including over snow), or inside visitor centers or other facilities. Vast public lands nearby offer outdoor opportunities with pets. Email us for more information.

Winter Safety

Winter adventure at Lassen involves risk. **Sled with caution; sledding is the number one cause of visitor injury in the winter season.** Learn more about how to prepare for a safe winter visit below.

Accessibility

The 24-hour vestibule in the Kohm Yah-mah-nee Visitor Center and its restrooms are wheelchair-accessible. The Loomis Ranger Station and restrooms in the Loomis Plaza are also wheelchair-accessible.

Weather

With elevations from 5,650 feet to 10,457 feet, a wide variety of weather conditions occur in Lassen Volcanic. Expect a 5° temperature decrease for every 1,000 foot increase in elevation. Prepare for your visit; bring layered clothing, snow boots, a hat and gloves.

Manzanita Lake Average High/Low Temperatures (5,850 ft)			
November	56/21 °F	February	51/13 °F
December	50/14 °F	March	53/16 °F
January	50/13 °F	April	61/23 °F

Camping

The Southwest Campground is open year-round. Fires and fire pans are not permitted in the winter, however self-contained barbecues are allowed in the paved parking area. The fee for snow camping or camping in a vehicle is \$10 per night. Please self-register at the entrance station. Wilderness permits are required for backcountry camping. Email us for more information.

Snowmobiling

Snowmobiling is not permitted anywhere within the boundaries of Lassen Volcanic National Park. Email us about snowmobile areas/trails outside the park.

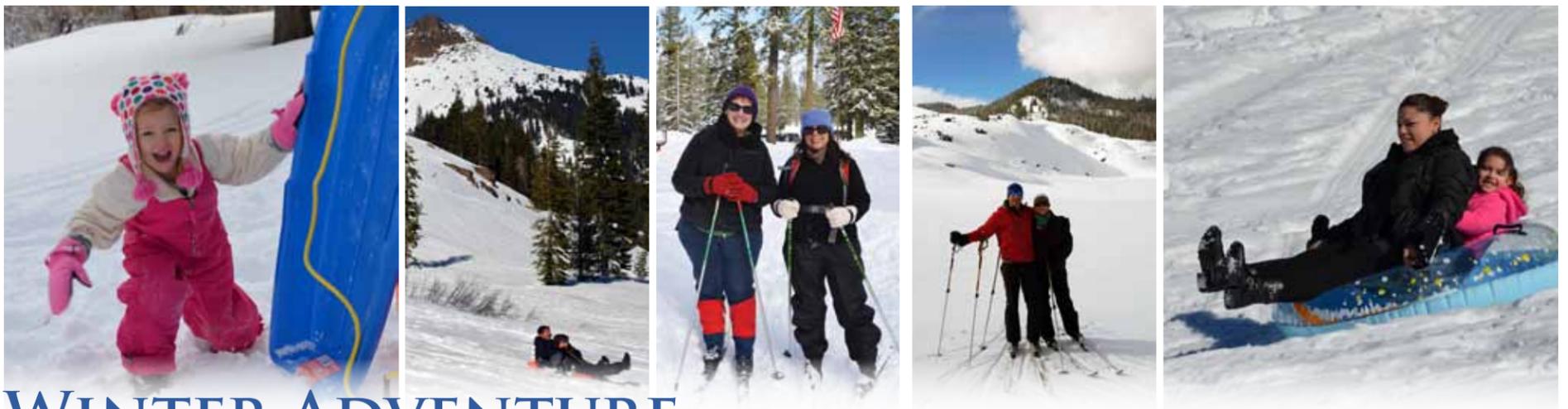


Explore Safely

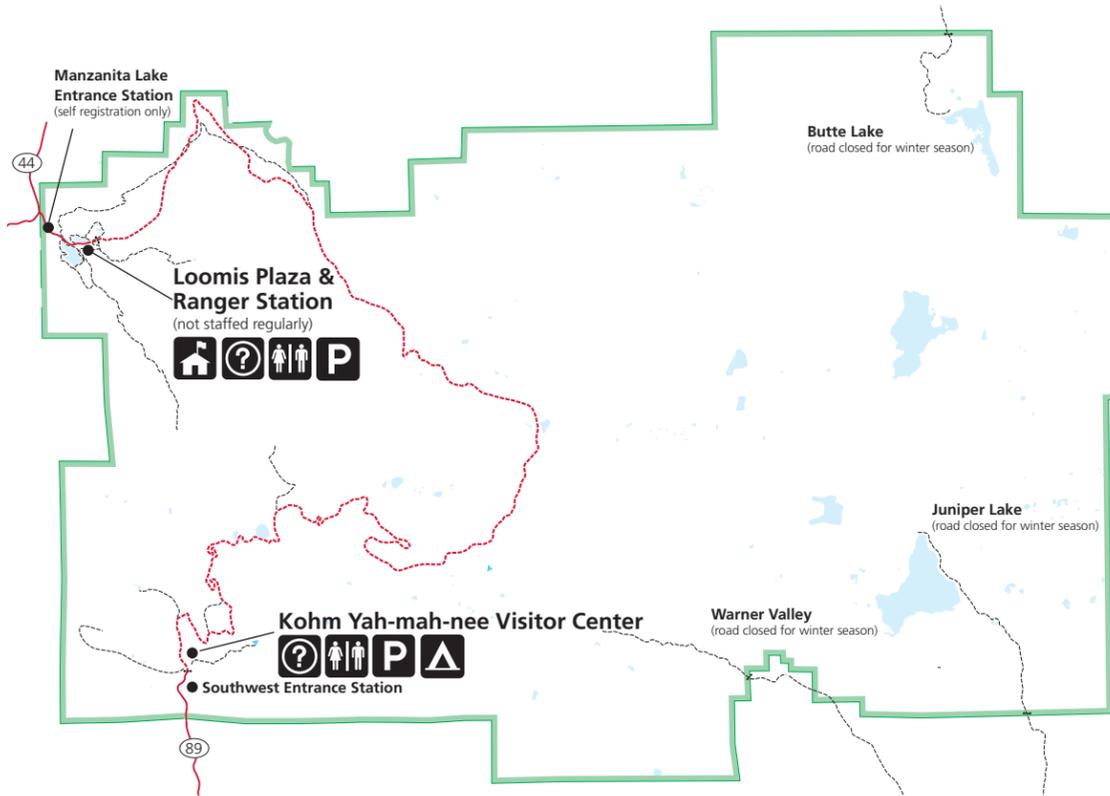


Safety is Your Responsibility

- Bring water
- Carry waterproof gear
- Tell someone where you are going and when you will return
- Pack layers for warmth
- Be avalanche aware
- Check the weather forecast
- Carry a map and compass and know how to use them



WINTER ADVENTURE



Winter Services

There are no fuel services in the park during the winter season.

Manzanita Lake Area

The Loomis Plaza is accessible year-round and provides access to the Loomis Ranger Station and an accessible restroom facility. The Loomis Museum is closed during the winter. The ranger station is not staffed regularly and does not offer information services. Call 911 in case of an emergency.

Southwest Area

The Kohm Yah-mah-nee Visitor Center is accessible year-round. See page 4 for winter hours and dates. A vestibule is open 24-hours and provides accessible restrooms, drinking water, an emergency phone (911 only), and a backcountry permit station.

Sulphur Works

Located one mile north of the Kohm Yah-mah-nee Visitor Center, Sulphur Works is visible year-round. Snowshoes or skis are the easiest method of travel. *Please be courteous and do not walk in ski tracks.* For your safety, traveling in hydrothermal areas is prohibited. Snow surrounding these areas can look solid but, may actually be a weak layer hiding pools of acidic boiling water. **Walking too close to these areas has resulted in severe injuries for previous visitors.**

Snowshoeing

If you are new to snowshoeing, consider joining a ranger-led snowshoe walk (see page 4). For those more familiar with walking on snow, opportunities abound at both the north and south entrances. The Manzanita Lake area and the park highway route offer gradual climbs. Numerous routes out of the southwest area offer trails of greater difficulty, many with spectacular views. See pages 6-7 for route information.

Nordic Skiing

Nordic skiers delight in the sweeping views from the park highway route and the gentle climb along Manzanita Creek. Be sure to bring equipment; rentals are not available in the park.

Sledding

Excellent sledding hills can be found in the southwest area. Smaller hills can be found in the Manzanita Lake area, however sledders often head to Eskimo Hill snow play area located 1.5 miles east on Highway 44. **Sled with caution; sledding is the number one cause of visitor injury in the winter season.**

Bring Your Own Equipment

Be sure to bring snowshoes or skis; equipment rentals are not available in the park.

Snowshoes are provided for ranger-led snowshoe tours only.

Backcountry Ski Patrol—Here to Help

Lassen Ski Patrol members are available to assist most weekends with route and avalanche safety information. Look for the first aid symbol.

Backcountry Skiing/Snowboarding

Backcountry skiers and snowboarders will agree that Lassen offers spectacular terrain with an uncommon solitude. The southwest area offers the most challenging routes. Lassen's backcountry is recommended only for experienced backcountry skiers and snowboarders.

Winter Backpacking

Experience the splendor of Lassen's winter by snow camping. Enjoy unimpaired night sky watching and a silence and peace only a snowy park can offer. Wilderness camping permits are required. Self-registration is available outside the Loomis Ranger Station and in the Kohm Yah-mah-nee Visitor Center 24-hour vestibule.

Avalanche Safety

Lassen is avalanche country. Each year avalanches claim more than 150 lives worldwide. Knowledge, information, and equipment are key to preventing and surviving avalanche accidents. Before you enter the winter wilderness, **ensure that you have a solid understanding of avalanche awareness and carry avalanche gear** including a shovel, probe, and transceiver (beacon). Backcountry users are encouraged to take an avalanche safety course through an AIARE certified instructor. A Lassen avalanche awareness guide is available at the Kohm Yah-mah-nee Visitor Center. Be especially cautious during and after a snow storm. Spring road opening also warrants extra caution, as avalanches and rock slides can occur on plowed sections of the road at any time. Learn more at kbyg.org.

Winter Etiquette

Use Separate Tracks

Skiers and snowshoers should establish and use separate, parallel travel paths. Icy snowshoe tracks and footprints can create dangerous conditions for skiers.

Help prevent injury; do not walk in ski tracks

Yield to Downhill Skiers

For your safety and the safety of others, please step to the side to allow skiers traveling downhill to safely pass.

In all other cases, yield to those traveling uphill, as they are working harder and have the right of way.





Photo by Edison Velez

BASE CAMP

Kohm Yah-mah-nee Visitor Center

Make Lassen's year-round visitor center your base camp for your winter visit. Please note that the visitor center may close at any time due to inclement weather.

Season November 1 through March 31

Closed Mondays and Tuesdays
Christmas and Thanksgiving

Additional Holidays Open December 26-27, 2016
January 16, 2017 (MLK Day, fee free)
February 20, 2017 (Presidents' Day)

Hours 9 am to 5 pm

Lassen Café & Gift

Nestled adjacent to the stone fireplace in the Kohm Yah-mah-nee Visitor Center, Lassen Café offers a variety of delicious and healthy items as well as a variety of beverages including espresso drinks. Shop for gifts and souvenirs at Lassen Gift including art and crafts from local artists.

Regular Hours 11 am to 2 pm
Weekends only

Extended Holiday Hours 9 am to 4 pm
November 25-27, 2016
December 26-31, 2016
January 1, 2017
January 14-16, 2017
February 18-20, 2017

Lassen Association Bookstore

Browse books, maps, trail guides, and videos about the park's natural and cultural history at the Lassen Association bookstore. The bookstore also offers a large selection of educational gift merchandise to enhance your park experience and take home as memories. All profits support visitor education and interpretation programs. The bookstore is open during regular visitor center hours.

Delve into Lassen's Natural Wonders

Stroll through the exhibit hall and learn more about Lassen's volcanic nature. Make an earthquake or locate the ancient rim of eroded Brokeoff Volcano.

Ranger-led Snowshoe Walks

Dates
Saturdays and Sundays
January 7 through April 2, 2017

Time/Location
1:30 pm - 3:30 pm
Meet outside the Kohm Yah-mah-nee Visitor Center

Cost
Suggested \$1 donation for snowshoe maintenance

Ages
8 years and older. Infants and children in carriers are not allowed for safety reasons

What to Bring
Boots, warm layers, water, lunch/snacks

How to Participate
Space is limited to the first 40 people; obtain a ticket for that day inside the visitor center.

There is something truly fantastic about walking on water—the frozen type that is. There is a simple joy in the feeling of floating on a surface that might otherwise engulf you and an unexpected sense of security when you dig your toes into a slippery slope. This human-made adaptation allows us to embrace a new form of freedom, enabling us to explore Lassen's vast winter landscape.

As it is easier to learn a new skill or activity if someone helps you take the first steps, Lassen offers ranger-led snowshoe walks to introduce you to the sport.

Ranger-led snowshoe walks are an excellent way to learn or practice snowshoeing techniques and explore Lassen in its winter form. As participant experience and fitness level may vary, so too does route and distance. At the beginning of each snowshoe walk, a ranger will demonstrate how to put on snowshoes and how to move around. Once the basic techniques are covered, the group heads out into the snow and the adventure begins.

Join us for a ranger-led walk and experience the feeling of floating for the first time or bring your own snowshoes and blaze a path all your own.

Entrance Fees

1-7 Day Winter Season
Vehicle Fee - \$10
December 1 - April 15
Valid for six days from date of purchase.

1-7 Day Vehicle Fee - \$20
April 16 - November 30
Valid for six days from date of purchase.

Annual passes can be obtained at park entrance stations, at the Kohm Yah-mah-nee Visitor Center, by phone, or online. To purchase a Lassen Annual Pass visit www.pay.gov or call (530) 595-6120. To purchase an interagency pass, visit store.usgs.gov/pass or call 888-ASK-USGS ext1.

Lassen Annual Pass - \$40
Valid for one year from month of purchase. Also honored at Whiskeytown National Recreation Area.

Interagency Annual Pass - \$80
Covers all national park units and other federal recreation areas with entrance fees. Valid for one year from month of purchase.

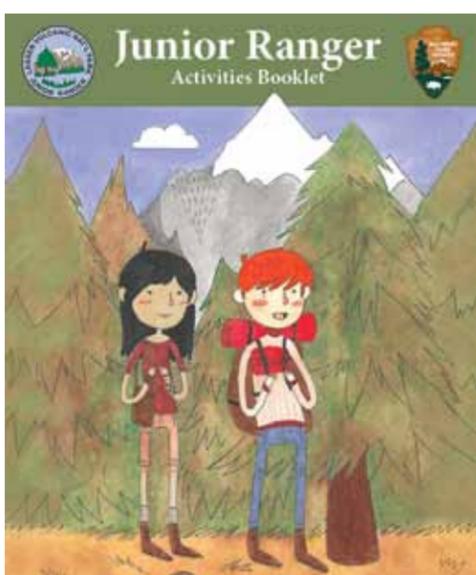
Interagency Access Pass - Free
Free lifetime pass for U.S. citizens and permanent residents who are permanently disabled.

Interagency Senior Pass - \$10
Lifetime pass for U.S. citizens and permanent residents who are 62 years or older.

Military Annual Pass - Free
Free annual pass for active military members and their dependents.

Every Kid in a Park Pass Voucher required to obtain pass
Free annual pass for fourth graders. Covers all national park units and other federal recreation areas with entrance fees. Valid through August 2017. Voucher itself is valid for entrance in lieu of the pass.

Join the Club!

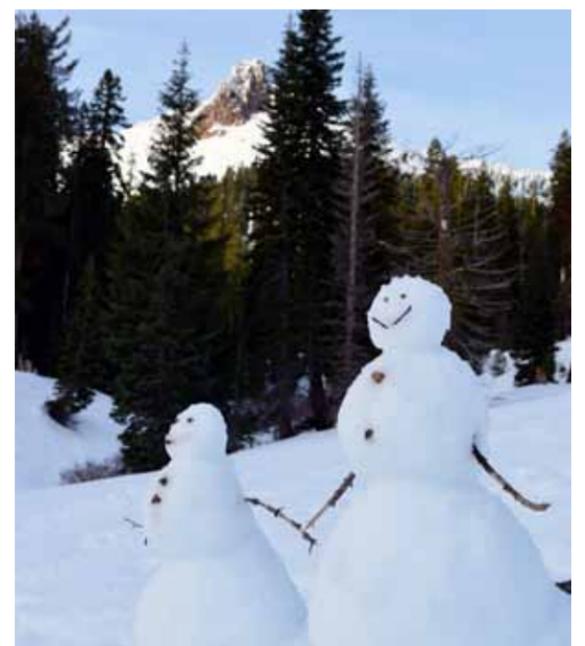


Become a Junior Ranger

Kids between the ages of 7 and 12 are invited to participate in our Junior Park Ranger program. Choose from a variety of activities while learning more about Lassen Volcanic National Park. Kids who complete the Junior Ranger program can earn a patch.

Our younger explorers are welcome to participate in the Lassen Volcanic National Park Chipmunk Club. Kids can learn more about wildlife in the park and earn a Chipmunk Club sticker.

Pick up your Chipmunk Club card or Junior Ranger booklet at the Kohm Yah-mah-nee Visitor Center!





NATURE SOUNDS

Photos by Frank Kratofil

Listening to Nature’s Heartbeat, continued

Continued from the front page

One approach to protecting natural soundscapes is the philosophy of “minimum necessary,” commonly used for managing wilderness areas. To maintain the natural and untrammelled character of Wilderness, many activities are prohibited except as necessary to administer the area. For example, the use of motorized equipment or landing of aircraft are only allowed under strict conditions in order to preserve the natural soundscape as well as other aspects of wilderness character.

Acoustic monitoring provides another approach to protecting natural soundscapes. In 2014, scientists began collecting baseline acoustic data that will help managers monitor acoustic environments in different areas of the park. The team collected sound level data and continuous audio recordings at the Bumpass Hell parking area, Manzanita Creek, and Big Bear Lake (east of Summit Lake).

The most commonly heard noise sources at the Bumpass Hell parking area were vehicles, human voices, jets, and propeller planes (in that order), with the most noise occurring between 11 am and 4 pm. As for natural sounds, the data also showed that birds were audible over 75% of the time at all three sites and were especially common at Big Bear Lake.

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Increasing awareness and appreciation of natural sounds, may be the most impactful approach to preserving soundscapes. Since noise sources in national parks are the result of humans, only we can choose to turn down the volume.

Fostering natural sound is as easy as being aware of the noise you make and considering its impact on other visitors and park wildlife. Since vehicles are one of the largest sources of noise in national parks, choosing to carpool, driving a hybrid or electric vehicle, and turning off your engine instead of idling can have a significant impact.

Of course fostering natural sound doesn’t stop at the road. You can help everyone enjoy natural sounds by muting electronic devices, speaking quietly, and using headphones to listen to music.

Another great way to become a soundscape steward is by simply enjoying natural sounds. You can test your ear at the new children’s exhibit in the Kohm Yah-mah-nee Visitor Center. One activity challenges visitors of all ages to identify sounds of the nearby red fir forest. Or, join the Nature Sounds Society for a special event on World Listening Day and enjoy recorded sounds of the park. Of course, you can always use listening activities like those listed below to explore Lassen with your ears in the places where natural sounds are heard best—outside!

The roar of Bumpass Hell’s Big Boiler fumarole overpowers the distant hum of passing planes.

Today, the roar of Bumpass Hell’s Big Boiler fumarole overpowers the distant hum of passing planes. The remoteness of this rugged place, coupled with its limited roadways, makes Lassen a natural sound haven. Yet, as with many of the threats our national parks face, noise knows no boundaries.

As our national parks enter their second century, we are challenged to mitigate impacts to our natural soundscapes by protecting the wilderness areas that buffer noise, preserving the dark night skies that accompany quiet nighttime hours, and taking the opportunity to appreciate nature’s gentle heartbeat.

Even over the din of our busy, noisy lives; the sounds of hope resonate in our national parks. The high-pitched squeak of the American pika and the steady rush of clear-water creeks are auditory reminders that with your help, our national parks will continue to be places where our children can go to savor the natural and cultural sounds of our nation’s heritage.

Applause for Our Partners

Lassen Association

The Lassen Association is a non-profit partner that supports and assists Lassen Volcanic National Park in research, interpretation, and conservation programs. Lassen Association promotes the discovery of Lassen Volcanic, enriches the experience of visitors, and supports the preservation and protection of the park for future generations.

During the winter season, the Lassen Association bookstore, located within the Kohm Yah-mah-nee Visitor Center, offers books, maps, trail guides and videos about the natural and cultural history of the park. The bookstore also offers a large selection of educational gift merchandise to enhance your park experience and take home as memories. All profits go directly to the park.



Lassen Association
(530) 378-1495
lassenassociation@yahoo.com
www.lassenassociation.org

Lassen Park Foundation

The Lassen Park Foundation provides support to preserve and interpret the special natural and cultural resources of Lassen Volcanic National Park and its environs for future generations.

With the generosity and dedication of our supporters, the non-profit Park Foundation has provided funding for projects including the Youth Camping program and the Volcano Adventure Camp for under-served youth, Lassen Peak trail restoration, the Kohm Yah-mah-nee Visitor Center, the Lassen Crossroads interpretive area, and the winter snowshoe education program.

Please become a Friend of Lassen by contributing to the Lassen Park Foundation! Your donation is tax-deductible.



Lassen Park Foundation
(530) 378-2600
info@lassenparkfoundation.org
www.lassenparkfoundation.org

Experiencing Natural Soundscapes

Fostering a Natural Soundscape

Help protect Lassen’s natural soundscape by being aware of the noise you make and considering its impact on other visitors and wildlife.

Mute electronics such as cell phones, watches, and cameras.

Speak quietly whenever possible, especially when observing wildlife.

Turn off engines instead of idling in parking areas or pullouts.

Observe quiet hours in the campgrounds by keeping voices low and avoiding use of generators.

Use headphones to listen to music or enjoy nature’s symphony.

Enjoying Natural Sounds

Ready to listen? Use the activities below to explore Lassen with your ears.

Close Your Eyes

Stop. Listen to what’s around you. Do you hear more with your eyes closed?

Count Sounds

Lift up a finger for each sound you hear. Use your left hand for natural sounds and your right hand for human-made sounds.

Sound Language

Find a sound you like. How would you spell that sound on paper?

Appreciate Sounds

What is the most beautiful sound you hear? What sound is the least appealing?

Sound Tally

Keep a tally of every kind of sound you hear on your walk. What sound do you hear the most?

Walk and Listen

Do you hear your footsteps? Do you hear your clothes rustle? Can you walk without making any sound?

Chat Like an Animal

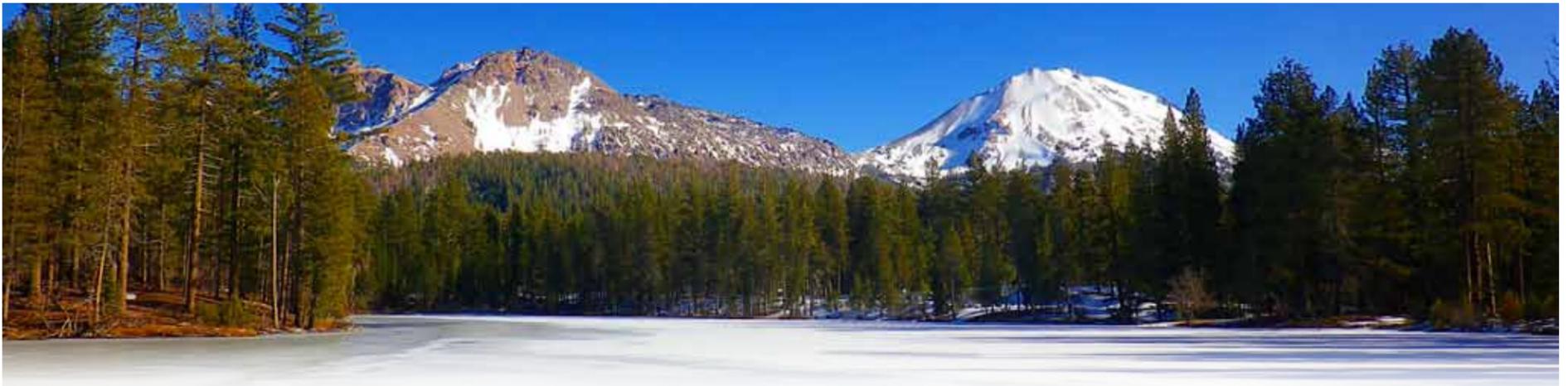
Listen for an animal. What sound does the animal make? Can you make its sound?

Listen to Landscapes

How does the shape of the land affect the way sound travels to your ear?

Sound Size

Listen around you. Do you hear movement in a bush or tree? Can you guess the size of the animal from its sound?



MANZANITA LAKE ROUTES

Reflection Lake

Northwest Route

Lassen National Park Highway opens to skiing and snowshoeing beyond the Loomis Plaza during the winter season highway closure. The route follows the snow-covered highway, with several destinations along the way.

Destinations beyond Lost Creek Campground area are recommended for overnight trips only. Above Kings Creek, the route enters an area that is subject to extreme avalanche danger. Heavy and deep snow and steep terrain require advanced skiing and mountaineering skills. This area is not recommended for the novice skier or snow camper. The summit of the park highway climbs to 8,511 feet in elevation and provides spectacular views of the region. Allow a minimum of three days to cross the park.

Crags Campground

Distance: 4.4 miles one way
Elevation Gain: 200 feet
Estimated Time: 3-4 hours

Hot Rock

Distance: 7.7 miles one way
Elevation Gain: 400 feet
Estimated Time: Overnight

Summit Lake

Distance: 12.2 miles one way
Elevation Gain: 1,200 feet
Estimated Time: Overnight

Road Summit

Distance: 21.6 miles one way
Elevation Gain: 2,700 feet
Estimated Time: 2 days one way

Beginner Routes

Manzanita Lake Snowshoe Loop

This trail is not recommended for skiing

Distance: 1.5 mile loop
Elevation: 5,800 to 5,850 feet
Average Time: 1.5 hours

Begin near the Loomis Ranger Station and circle the lake in either direction. This route provides excellent views of Lassen Peak and Chaos Crags. Please stay off lake ice, it is unstable and shores may be difficult to recognize under snow.

Manzanita Campground Loop

Distance: 1.5 mile loop
Elevation: 5,800 feet
Average Skiing Time: 1.5 hours

Cross the footbridge by the Loomis Ranger Station, turn right and follow the road to the campground for approximately a quarter mile to where it turns to the right through a set of large rocks. The trail covers a half-mile loop through several sections of the campground.

Reflection Lake Snowshoe Route

This trail is not recommended for skiing

Distance: 0.5 mile loop
Elevation: 5,800 feet
Average Time: 30 minutes

Begin at the shore across the highway from the Loomis Museum and circle the lake in either direction. It may be necessary to follow the park highway for a short section of the lake edge closest to the road. Please stay off lake ice, it may be unstable and shores can be difficult to recognize under snow.

Intermediate Routes

Chaos Jumbles Area

Distance, elevation change and times vary
Head up the park highway for approximately a half-mile to an open area of stunted trees. Veer to the right up toward Chaos Crags. Here the undulating topography slopes up into the bowl of the Crags. The terrain is easy to moderately difficult with excellent views at the higher elevations.

Chaos Crags Trail

This trail is not recommended for skiing

Distance: 4 miles round-trip
Elevation Gain: 5,290 to 6,650 feet
Average Time: 3-4 hours

Cross the footbridge by the Loomis Ranger Station, turn left and follow the road to the Chaos Crags Trailhead sign. Follow yellow tree markers as the trail climbs steeply up to a ridge. If you decide to descend to Crags Lake, beware of potential rock falls and high winds.

Nobles Emigrant Trail

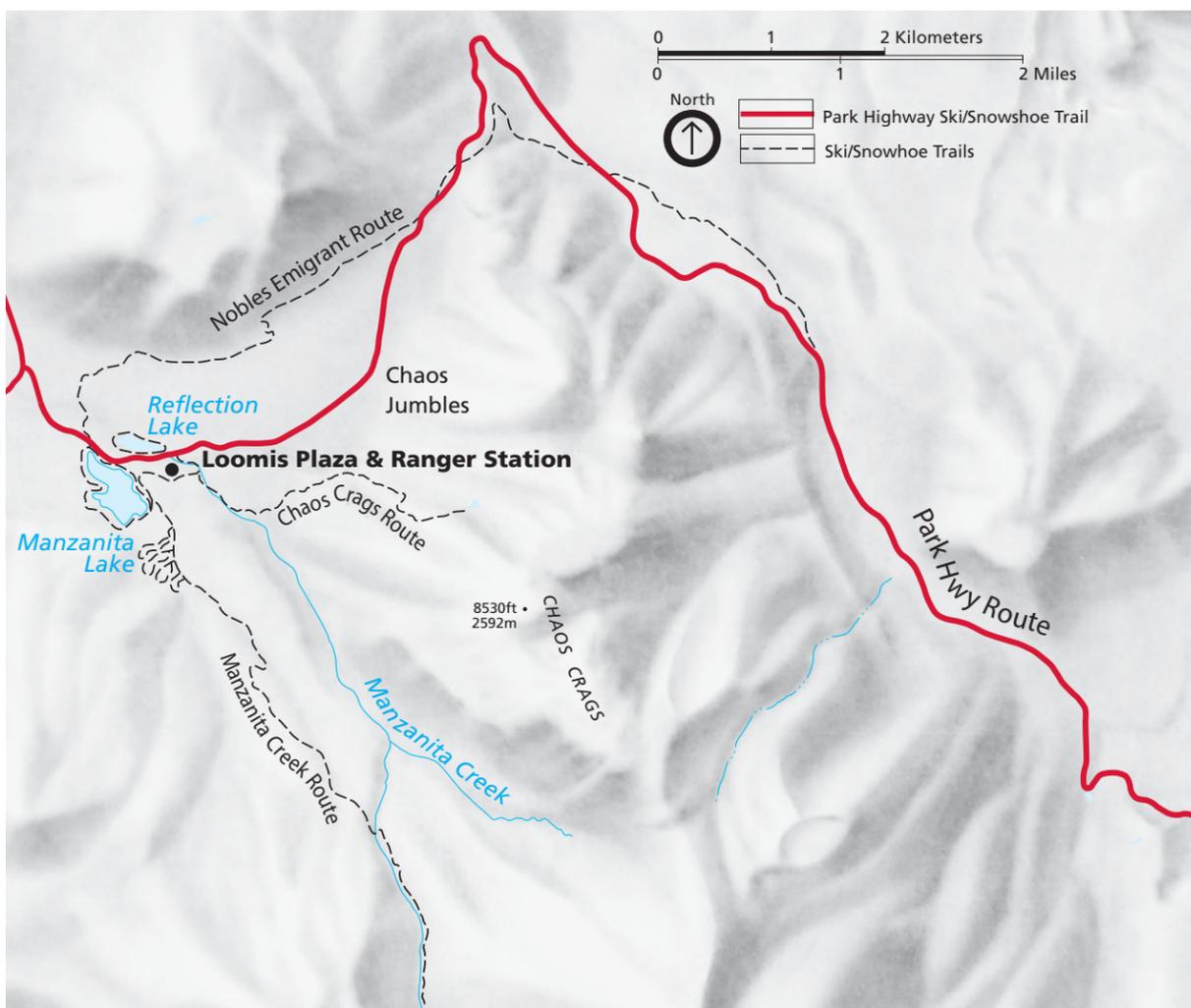
Distance: 7 miles round-trip
Elevation Gain: 5,875 to 6,275 feet
Average Skiing Time: 3-4 hours

Pick up the trail north of Reflection Lake or at the trailhead off a service road west of Reflection Lake. Follow the orange tree markers along the base of Table Mountain. The trail climbs over a flank of Table Mountain into a thick fir forest and rejoins the park highway three miles east of the Loomis Plaza at Sunflower Flat. Return the way you came or via the park highway to make a loop.

Manzanita Creek

Distance: 7.5 miles round-trip
Elevation: 5,850 to 7,400 feet
Average Skiing Time: 6 hours

From the Loomis Ranger Station, cross a footbridge, then turn right onto the Manzanita Lake Campground road. Travel through the campground to the Manzanita Creek trailhead sign. The route is mostly a gradual climb of approximately 1,000 feet. Beware of avalanche chutes off of Loomis Peak that may reach the upper end of the trail.





SOUTHWEST ROUTES

Ridge Lake

Beginner Routes

Sulphur Works

Distance: 2 miles round-trip

Elevation: 6,700 to 7,000 feet

Average Skiing Time: 1 hour

The boiling mudpots and steam vents at Sulphur Works are active year-round. Follow the park highway route northwest from the southwest parking area. The left side of the route is bordered by steep side hills, be aware of avalanche danger. For your safety, do not travel or camp in or near hydrothermal areas. The snow surrounding these areas may look solid, but may actually be a weak snow layer hiding pools of acidic boiling water.

Traveling too close to hydrothermal areas has resulted in severe injuries for previous visitors.

Nanny Creek via McGowan Ski Trail

Located in adjacent Lassen National Forest

Distance: 5 miles to Nanny Creek one-way

Elevation: 6,080 to 5,110 feet

Average Skiing Time: 4 hours

The McGowan ski trail is located in Lassen National Forest, 3.5 miles south of the southwest entrance. Marked routes travel across a flat and slightly descending landscape. Follow a loop to the north or ski through to Highway 36 at Nanny Creek. The trail does not go to McGowan Lake, which is on private property. This main route makes for a good one-way ski route if vehicles are available for shuttle.

Intermediate Routes

Ridge Lake

Distance: 4 miles round-trip

Elevation: 6,700 to 8,000 feet

Average Skiing Time: 4 hours

Follow the park highway route from the southwest parking area about ¾ mile and cross the bridge before Sulphur Works. The route begins at the north end of the flat area to the left. The route climbs rapidly along the east side of West Sulphur Creek to the Ridge Lakes basin. Several good camping spots can be found on the north shore of Ridge Lakes. If weather is severe, more protected camping can be found about ¼ mile below Ridge Lakes along its outlet creek. Avoid the area south of Ridge Lakes during periods of avalanche danger.

Mill Creek Falls

Distance: 3.6 miles round-trip

Elevation: 6,700 to 6,600 feet

Average Skiing Time: 3 hours

This route is marked with tree markers, however the route is difficult to follow if you are unfamiliar with the summer trail. Travel east of the Kohm Yah-mah-nee Visitor Center toward West Sulphur Creek. In about ¼ mile a bridge crosses the creek and should be avoided when snow-covered. The route climbs steeply before veering right (south) into the red fir forest. In another ¼ mile, the trail turns left (east) and continues through a series of rises and dips parallel to East Sulphur Creek. Two bridges cross above the waterfall and should be avoided during the winter season.

Advanced Routes

Brokeoff Mountain

Distance: 7 miles round-trip

Elevation: 6,650 to 9,250 feet

Average Skiing Time: 8 hours

Most skiers access the summit via the southwest ridge. Getting onto this ridge can be difficult as the various routes pass through hazardous canyons. Traditional routes use the Forest Lake route or the summer trail that begins near the park entrance. Numerous avalanche paths exist on all aspects of the mountain. Travelers should use extreme caution. Many skiers reserve travel on Brokeoff Mountain for spring when snow conditions traditionally stabilize. Summit conditions during inclement weather often include high winds with little or no visibility. Be cautious of overhanging cornices at the summit.

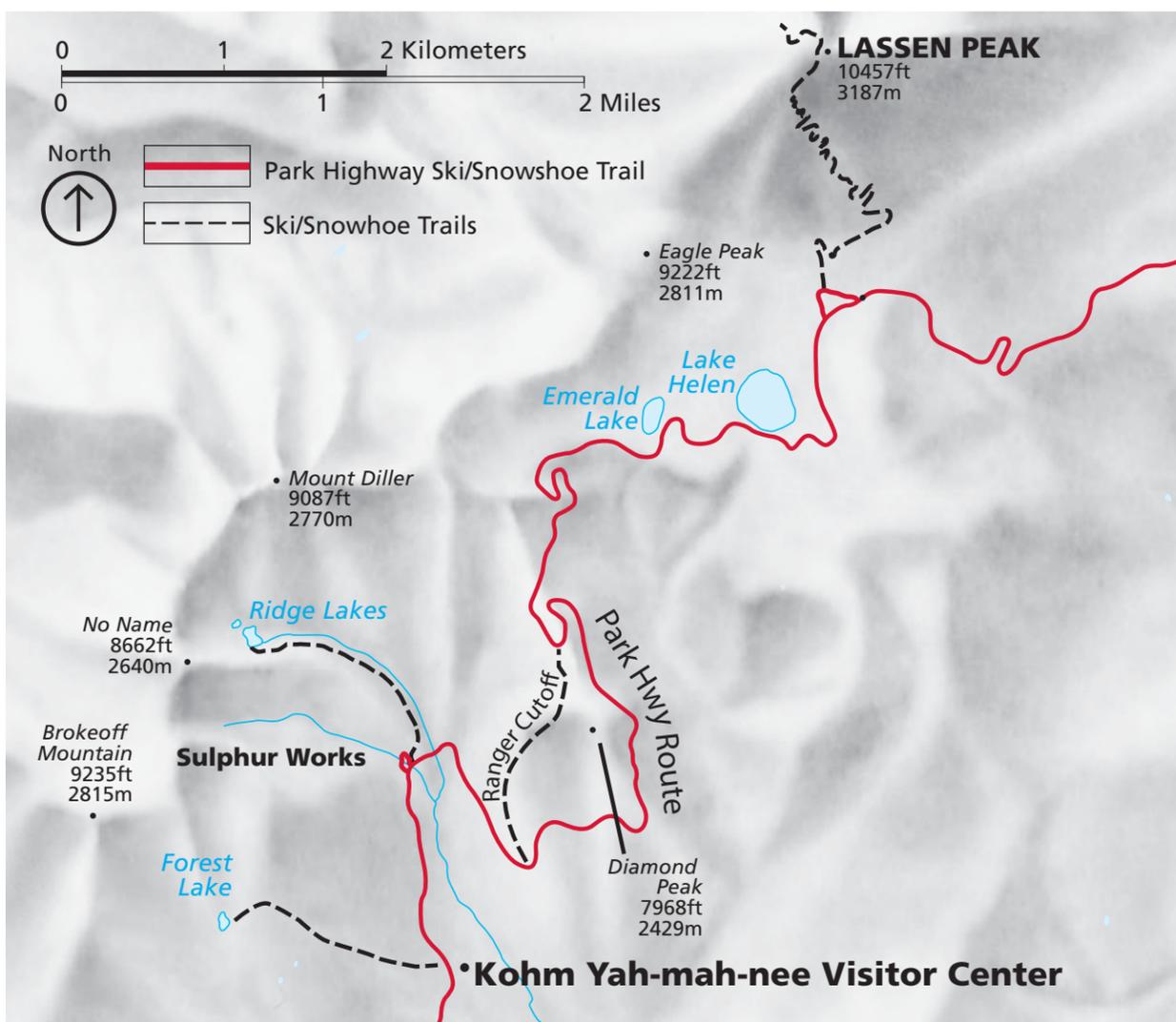
Lassen Peak

Distance: 20 miles round-trip

Elevation: 6,700 to 10,457 feet

Average Skiing Time: 3 days

Most skiers and snowshoers allow three days to summit Lassen Peak in the winter. A possible itinerary includes Lake Helen, summit Lassen, and return. Be prepared for high winds in the Lassen Peak and Lake Helen areas. Conditions on the mountain are most stable in early morning hours; afternoon travel is not recommended. The safest route up the mountain follows the summer trail through the forested section and continues on the southeast ridge to the summit. Weather conditions on Lassen Peak can deteriorate rapidly, creating white out conditions and high winds.



Southwest Route

Lassen National Park Highway is open to skiing and snowshoeing beyond the Kohm Yah-mah-nee Visitor Center during the winter season highway closure. The route follows the snow-covered highway, with several destinations along the way.

The southwest area of the park is primarily composed of steep terrain and sections of the highway are prone to avalanche danger. Travel outside of the road corridor is recommended only for experienced winter travelers.

The Diamond Peak area (including the eastern slope above Sulphur Works) is extremely avalanche prone. This area should be avoided by using the marked "Ranger Cutoff" route just north of Windy Point.

By mid-winter it is difficult to find any trace of the road between the Little Hot Springs Valley and Reading Peak. High winds and white out conditions are common in this area during winter storms.

Destinations beyond Lake Helen are recommended for overnight trips only. Good overnight snow camping areas can be found a short distance from the highway north of Diamond Peak and near Emerald Lake and Lake Helen.



WINTER TRAVEL

Directions Around the Park

Lassen Volcanic National Park Highway is closed to vehicles in the winter and early spring. Follow the directions below for travel between the southwest and Manzanita Lake entrances. **RVs and trailers are advised to use I-5 via state routes (SR) SR-44 and SR-36, or travel around the east side of the park.** For directions from Manzanita Lake to the southwest entrance, follow the directions above in reverse—be sure to reverse left and right turns.

Travel Around the West Side of the Park

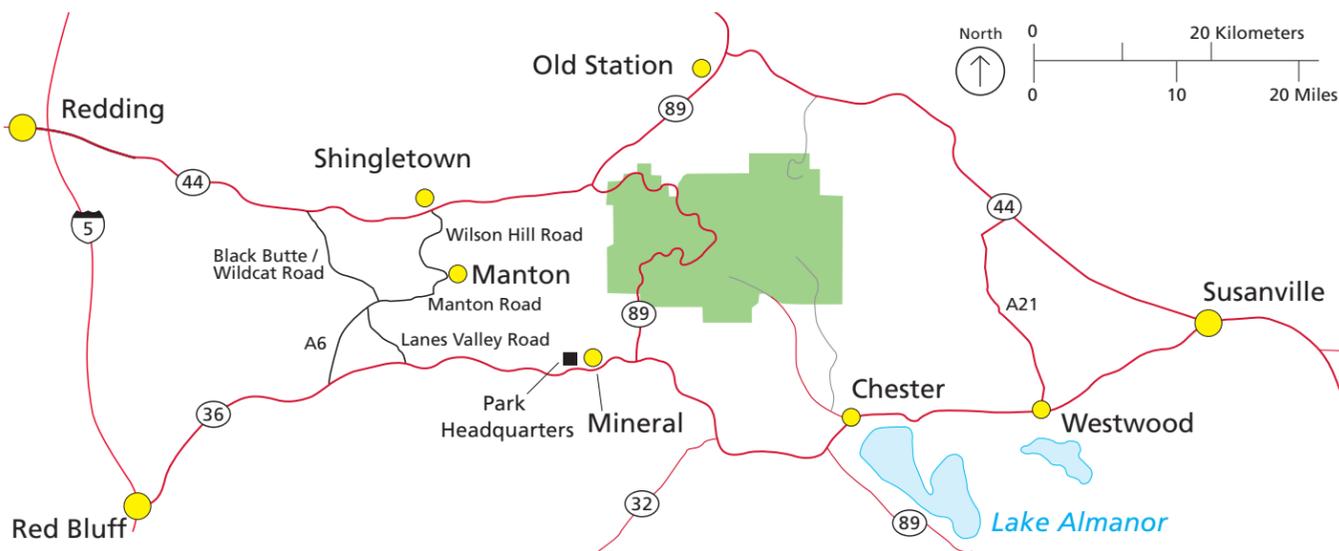
This route is the shortest route around the park. This windy road is not recommended for RVs and trailers. **Average travel time is one hour and 45 minutes.**

1. From the Kohm Yah-mah-nee Visitor Center, head south on Lassen National Park Highway/SR-89 for 4 miles.
2. Turn right (west) on SR-36. Continue for 23 miles.
3. Turn right (north) onto Lanes Valley Road. A large road sign on the north side of the highway marks the turnoff approximately one mile before the town of Paynes Creek. Continue for 7 miles.
4. Turn right onto Manton Road/Co Rd A6. Continue for 7 miles.
5. In Manton, turn left onto Wilson Hill Road. Continue for 1.5 miles.
6. Turn left to stay on Wilson Hill Road. Continue for 6 miles.
7. Turn right (east) onto SR-44. Continue for 17 miles.
8. Turn right (south) into the park. Continue 1 mile to the Manzanita Lake entrance.

Travel Around the East Side of the Park

This route is slightly longer than the west route, however it has fewer curves and is appropriate for RVs and trailers. **Average travel time is two hours.**

1. From the Kohm Yah-mah-nee Visitor Center, head south on Lassen National Park Highway/SR-89 for 4 miles.
2. Turn left (east) on SR-36. Continue 38 miles to CR A21/Mooney Road located in the town of Westwood. Continue for 18 miles. Please note that CR A21 may close during heavy snowfall. In the case of closure, follow SR-36 to the SR-44 junction just west of Susanville.
3. Turn left (west) onto SR-44. Continue for 28 miles.
4. Turn left (west) onto SR-44/89. Continue for 13.5 miles.
5. Turn left (south) into the park. Continue 1 mile to the Manzanita Lake entrance.



Winter Preparedness

Lassen National Park Highway is closed between SR-44 and SR-36 through most of spring. The road is plowed to the Kohm Yah-mah-nee Visitor Center from SR-36 and to the Loomis Plaza from SR-44. Visit the website for road status at: go.nps.gov/lavo_current for up-to-date information.

Be prepared for icy or snowy conditions at high elevations during the fall and winter seasons. Conditions can be very hazardous, especially when temperatures drop during the evening and early morning hours. **Carry tire chains in your vehicle from October through May.**

Spring Highway Clearing

Clearing of the park highway usually begins in April and on average takes about two months before the highway opens to through traffic. Predicting when the highway will open is not possible, even in late spring, because weather in April and even May can affect plowing progress significantly. See the chart below for opening and closing dates for the last ten years.

Year	Date plowing began	Date road opened	Date road closed
2006	Apr 3	July 6	Nov 11
2007	Apr 2	May 18	Dec 6
2008	Mar 31	May 18	Dec 12
2009	Apr 13	Jun 4	Nov 18
2010	Apr 19	Jul 8	Oct 23
2011	Apr 19	Jul 16	Nov 22
2012	Apr 21	June 1	Nov 19
2013	Mar 21	May 24	Dec 18
2014	Apr 2	May 19	Dec 1
2015	Mar 30	May 3	Nov 8
2016	Apr 18	Jun 12	



National Park Service
U.S. Department of the Interior

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