

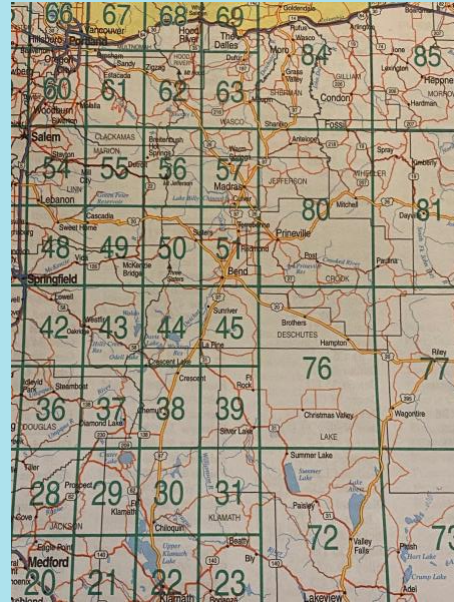
CENTRAL OREGON

OVER THE YEARS

DRIVING THROUGH VOLCANIC LEGACY

We visit central Oregon on a regular basis. We usually drive. If flying, you have the option of Redmond or Portland and making the three- and one-half-hour drive from Portland. It is a unique place where the landscape has a lot of contrasts, from snow peak mountains to high desert, pine trees to sage.

Note: The map above is from Oregon Atlas & Gazetteer.



LANDSCAPE AND CLIMATE

The Central Oregon landscape has formed over millions of years due to geologic activity. Central Oregon is impacted by the Cascadia Subduction Zone off the Oregon coast. The Cascade Mountain range was formed by the Juan de Fuca Plate being pulled under the North American Plate. This plate movement continues to cause volcanic activities such as lava spewing and earthquakes. Earthquakes that occur near or off the coast can cause tsunamis.



Source: NPS Convergent Plate Boundaries—Subduction Zones

Modified from "Beauty from the Beast: Plate Tectonics and the Landscapes of the Pacific Northwest," by Robert J. Lillie, Wells Creek Publishers, 92 pp., 2015, www.amazon.com/dp/1512211893.

Visitors will see numerous volcanoes on a drive around Central Oregon: Newberry Volcano, Mt. Batchelor, and the Three Sisters mountains. The landscapes around Bend, Sunriver, Redmond and Sisters bear the aftermath of these volcano explosions, and the lava created these features that have eroded to how they appear today. Mt. Mazama (Crater Lake), which is 90 miles south of Bend, and Mt. Hood, approximately 130 miles north of Bend, are nearby volcanoes. The National Volcanic Threat Assessment (2018), USGS ranked the volcanoes mentioned above as a "very high threat." A volcano must be under 10,000 years old and near a large population area to be considered a "very high threat". These volcanoes are currently dormant but could erupt in the future.

The **High Desert Museum**, located about 10 miles north of Sunriver on US 97, has exhibits about the landscape and cultural

history of the area. If possible, we recommend you visit the museum before starting to explore the area.

We have visited Central Oregon in the summer months.

Temperatures can be chilly in the mornings and evenings (in the 50s), and typical daytime highs are in the 80s. On some of our trips, the daytime highs have been in the 90s and has reached triple digits on several occasions. When renting a house or villa, check to see if it has air conditioning, as many properties don't have it. There are occasional thunderstorms in the afternoon. If you are visiting in the summer, make sure to bring sunscreen, mosquito replants, hiking shoes or closed toe shoes, a light jacket or sweater, and sweatshirts.

We haven't visited Central Oregon in the winter months. Winter is cold, with temperatures ranging from lows in the 20s to highs in the mid-30s with lot of snow. Central Oregon is an ideal place for winter sports. Mt. Batchelor is an ideal place for skiing and snowboarding.

SUNRIVER

Sunriver is "home base" for all our day trips. Sunriver is located off U.S Highway 97 approximately 20 miles south of Bend. It has a hotel, as well as



villas and houses for vacation rentals.

Sunriver also

has a village containing shops, restaurants, and a grocery store. It is connected by a very expansive pedestrian/bike trail. Most of the houses for rent also have bikes for renters to use, or you can rent bikes in



the village. There are numerous activities at Sunriver, including golf on two courses, tennis, cycling, swimming in various swimming pools, kayaking, and horseback riding. Sunriver Nature Center and the Observatory is a great place to visit with your kids. Most people in Sunriver ride bikes to the village or other points of interest. The Deschutes River runs by Sunriver, and kayak rentals are available if you didn't bring your own. For history buffs, Sunriver is the site of a World War II training camp called Camp Abbott for combat engineers, and you can learn more about it in Sunriver. For beer lovers, Sunriver has its own brewery, [Sunriver Brewing](#), located in the village. If you like to ride road bicycles, Sunriver is a good starting point for rides to Mt. Batchelor (round trip about 50 miles for the more serious bikers), the Cascade Lakes Loop, and general riding around the Sunriver area.



View of Deschutes River from Cardinal Landing Bridge

BEND

Bend is another location in Central Oregon for lodging and dining. Downtown Bend has numerous restaurants; [Deschutes Brewery's Bend Public House](#) is a favorite. The Old Mill District also has shops and riverfront restaurants and bars. A restaurant that we frequent when we are in Bend is [Greg's Grill on the Deschutes](#). Staying with the beer theme, central Oregon breweries worth a visit are [Crux Fermentation Project](#) and [Boneyard Beer](#). Yes, there are non-brewery restaurants in Bend. If you need a caterer for an event in the Bend area, we recommend Back to the Table. Chef Robert Hipp and his staff make delicious food and provide great service for your event.



Looking west from Pilot Butte, Bend and Cascade Mountains

REDMOND – EAGLE CREST RESORT

Redmond, about 15 minutes northeast of Bend on U.S. Highway 97, is home to the regional airport for this area. A place to stay in



Redmond is Eagle Crest Resort, which is about 10 miles west. The resort has a hotel, village, restaurants, swimming pool, golf courses and bike/walking trails. This resort also has an event center that overlooks the Deschutes River. We have stayed here once and enjoyed the resort. We ate at two Redmond

establishments while we were there. The [Wild Ride Brewery](#) has

four food trucks next to it. We visited the brewery twice so we could try food from all the food trucks. [The Hideaway](#), a local sports bar, also has good food.



View from Eagles Crest Resort – Mt. Washington

DAY TRIP – PLUVIAL FORT ROCK LAKE

For this trip, we recommend bringing a lot of sunscreen, water, snacks, and sandwiches. There are no restaurants, and convenience stores are very few and far between. Some of the sites mentioned in this day trip have drinking fountains and restrooms. It is easier to navigate the back roads if you are driving a SUV. As cell phone coverage is spotty, we recommend taking paper copies of a map instead of relying on navigation (we recommend the Oregon Atlas and Gazetteer) and bringing a satellite communicator in the event you need to call for assistance in areas with no cell service.

Some of these sites may require you to complete and/or pay for a day permit. The information on the day permit may help in case of search and rescue.

FORT ROCK STATE NATURAL AREA

This Oregon state park is 56 miles south of Sunriver. We have accessed Fort Rock from the north and west. The first time we drove up to the site, the landscape reminded us of the Australian outback. The State of Oregon also refers to this area as the Oregon Outback. For us, Fort Rock resembles the Ayers/Uluru Rock in the Australian Outback. According to the USGS Geological Survey Circular 838:



Fort Rock, with its spectacular wave-cut cliffs, is an isolated maar volcano within a monotonous, flat lake basin (Peterson and Groh, 1963). The wave-cut remnant is 1360 m in diameter and 60 m high, and the present crater floor is 6 to 12 m above the floor of the lake basin. The south rim has been breached by waves of the former lake, providing easy access to the crater.

The Fort Rock Lake area has had human habitation for 13,000 years.



This area is the oldest settlement in America for the Paleo-Indians that crossed the Bering Strait into America from North Asia. At Fort Rock Cave, the oldest evidence of human habitation was excavated in 1967, and the materials have been dated from 9,000 to 13,200 years

ago. The cave has been designated as a National Historic Landmark and added to the National Historic Places. The cave has been closed for visitors every time we have visited. In recent years, you can visit

the cave by a guided tour; we plan on taking the tour on our next visit.



Inside the Fort Rock caldera



South entrance to Fort Rock



Views from inside the volcano and view of tuff walls

Fort Rock – Christmas Lake Valley Basin is in a dry inland sea called Fort Rock Lake. The lake was once a pluvial lake. According to [Oregon: A Geology History](#):

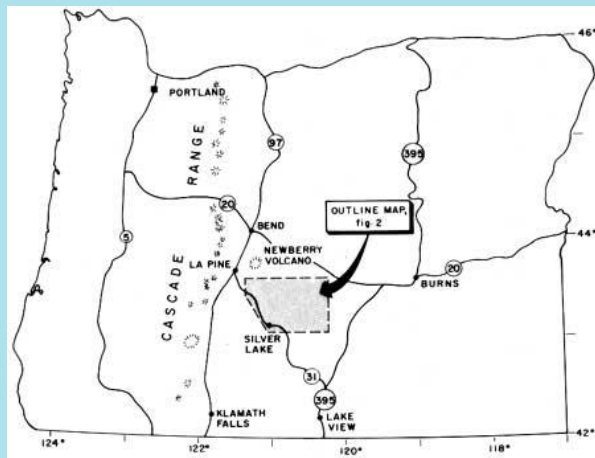
Over the past 2 million years, climate change caused ice ages to occur again and again. During these times, increased

rainfall filled many of the large, closed basins in eastern Oregon, forming big bodies of water called pluvial lakes.

Evaporation is very low when these lakes are forming. The depth of the former Fort Rock Lake is estimated to be 200 feet. The waves and different levels from the lake have left their markings. As you drive the lakebed, you can see the markings on the mountains where the ancient seashores were. Fort Rock has water markings, and various fossils have been found in this basin. Researchers estimate that the lake evaporated about 10,000 years ago. An interesting fact is that when a new ice age occurs these lakes will come back.



To the east of this ancient lake is the volcanic range of the High Cascades and to the north is Newberry Volcano. Volcanoes have also contributed to landscape. Fort Rock and other natural structures are created by a volcanic tuff ring. Encyclopedia Britannica states that tuff is "a relatively soft, porous rock that is usually formed by the compaction and cementation of volcanic ash or dust."



Source: USGS Geological Survey Circular 838
Location of Pluvial Fort Lake

Driving in this lakebed was exciting for us, as we wanted to see how many ancient lakebed attributes we could identify. The various places we visited are presented from east to west.

CRACK IN THE GROUND

This natural feature is located 90 miles South of Sunriver. Once you leave Oregon State Route 31, the paved road eventually turns to a gravel road. Crack in the Ground is a volcanic fissure created thousands of years ago by the eruptions. (Four Craters Lava Field south of Newberry Volcano is related geologically to Crack in the Ground.) Typically, this fissure would have been filled over the years by sediment; because of where it is located, the filling didn't happen. We hiked the "crack" end to end: It's about two miles long and 70 feet below the surface. The bonus for us was that the air temperature in the "crack" was much cooler than the 90-degree surface



temperature. The entrance from both ends is obvious, but we were careful after the hike not to walk to the edge of the fissure and fall in. This is one of our favorite sites to visit.

CHRISTMAS VALLEY SAND DUNES

Lost Forest Lane, Christmas Valley, OR. The Dunes are approximately 105 miles southeast of Sunriver. This area is remote, and once you have left the main road at the community of Christmas Valley, the roads are very rough and generally not paved. It's worth a trip to see this geological feature in an arid desert.

The dunes in Christmas Valley were created about 7,700 years ago when Mt. Mazama erupted and the ashes from the eruption were blown into Fort Lake. (This explosion also created Crater Lake. Crater Lake partially filled the caldera of the collapsed volcano. The

explosion was powerful: Before the eruption Mt. Mazama's elevation was 12,000 feet. After the eruption, the elevation was 8,157 feet).

On your way to the Sand Dunes, you will go by the Lost Forest, which is worth a stop. The Lost Forest is a 9,000-acre forest of ponderosa pine. The forest has survived over time with very little rainfall and surrounded by the dunes.

At the Dunes you can hike, play in the sand, drive the dunes on off-highway vehicle or simply sit by the sand and dream you are sitting by a beach with the water over the dune.

BIG HOLE AND HOLE IN THE GROUND

47 miles South of Sunriver (US 97 and OR 31). Use Google Maps or the Oregon Atlas and Gazetteer to help locate the site because the signage from OR 31 is not good. While Hole in the Ground can be hard to find, it is worth the effort. If you make it, do hike down to the middle of the crater to see the magnitude of the explosions.

Both Big Hole and Hole in the Ground are other examples of maar. Hole in the Ground was formed by volcanic explosions between 13,500 to 18,000 years ago. According to the USGS Geological Survey Circular 838.

The crater was formed in a few days or weeks by a series of explosions that were triggered when basaltic magma rose along a northwest-trending fissure and encountered abundant ground water at a depth of 300 to 500 m below the surface. After the initial explosion, repeated slumping and subsidence along a ring-fault led to intermittent closures of the vent, changes in the supply of ground water, and repeated accumulations of pressure in the pipe.

Big Hole is older than Hole in the Ground and has experienced more erosion. Big Hole is about a mile west of Hole in the Ground.

DAY TRIP: NEWBERRY NATIONAL VOLCANO MONUMENT

LAVA LANDS VISITOR CENTER AND LAVA BUTTE

Approximately seven miles north of Sunriver is Lava Lands Visitor Center, which is the interpretive center for Newberry National Volcanic Monument. Lava Butte exploded 7,000 years ago and left the lava fields. There is a trail that takes visitors to the top of Lava Butte, elevation 5,020, for a panoramic view. Other trails worth walking are the Trail of Molten Land and Trail of Whispering Pines. Both are interpretative trails.

BENHAM FALLS TRAIL VIA DESCHUTES RIVER TRAIL

Also accessible from the Lava Lands Center is the **Benham Falls**

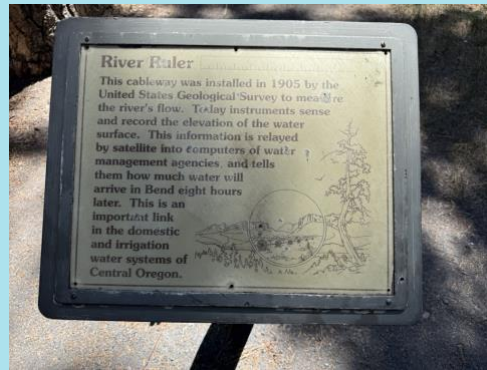


trail head. This is an easy 1.5-mile round trip trail to Benham Falls. (The most difficult part of the trail is mosquitos, and there are a lot of them.) The trail follows the Deschutes River, and there are places that you can be close to the banks of the river. The river also has

many rapids at this location. There is an observatory for the falls at the end of the trail. The trail also has informational panels that provide interesting facts about logging, such as the meaning of “log jam” and an early flooding detection system using a cableway.



Log Jam



River Ruler and the Cableway



Cableway across the river

If you decide to stay in Sunriver, you can ride your bikes to Benham Falls. I once rode my bike to the Falls and suffered a flat tire on my way back. I didn't have a repair kit, so I had to call my family to get a ride back.

NEWBERRY VOLCANO AND PAULINA PEAK

Newberry Volcano is approximately 25 miles southeast of Sunriver. The volcano, which last erupted in 690 A.D., is an active volcano. Paulina Peak is the highest point of the Newberry Volcano at 7,984

feet. For reference, this is higher than any mountain in the Appalachians. To access the Peak, look for the Paulina Peak trail. The hike is moderate with portions that are steep. If you don't want to hike the trail, you can drive to the summit. The views of the Newberry Volcano area are spectacular. There are two lakes on the mountain, Paulina Lake and East Lake, for boating and fishing. Also, the Big Obsidian Flow is worth a visit. It is the youngest lava flow at only 1,300 years ago. A favorite activity is the Paulina Plunge, which is a 1.5-mile mountain bike ride by waterfalls. We have ridden up to East Lake on our road bikes from Highway 97 to the lakes and back. It's a 25.5-mile ride going from 4,208 feet in elevation to 6,348 feet in elevation. Going up was a struggle and again going down was fun.

LAVA RIVER CAVE

About four miles from Sunriver is the Lava River cave, which is part of Newberry National Volcanic Monument. It is a 2.2-mile round trip. The cave is dark and cold, so bring flashlights. If you don't have flashlights, you can rent lanterns where you purchase tickets for the cave. Have a sweatshirt/sweater for the cool temperatures, and wear closed toe footwear. There are signs that request visitors to change clothes and gear if they have visited other to prevent contamination of the native bats that reside in the cave.

LAVA CAST FOREST TRAIL

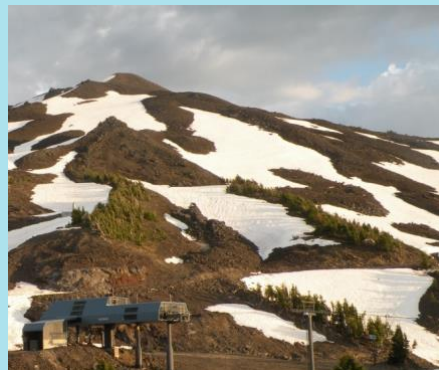
About 18 miles east from Sunriver is the Lava Cast Forest Trail. The access road is gravel road and is rough to drive on. The trail is a one-mile loop. The interpretative trail is paved and has information about tree molds that formed 7,000 years ago from molten lava. We liked exploring this trail and seeing the molds of ancient trees. We highly recommend this trail.



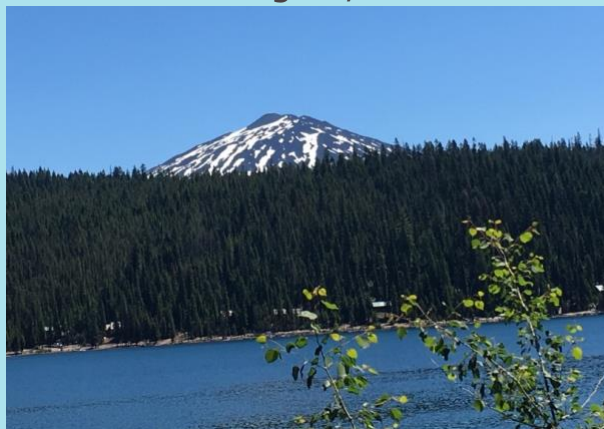
DAY TRIP: CASCADE LAKES LOOP

MT. BATCHELOR

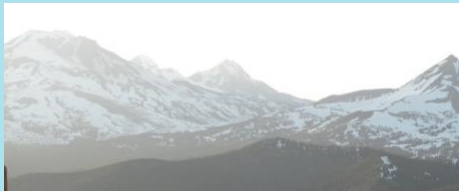
Mt. Batchelor is one of the main mountains that dominate the landscape south of Bend and west of Sunriver. Mt. Batchelor is a ski heaven in the winter. In the summer, you can ride the ski lifts to the top of the mountain at 9,065 feet. The top has a sweeping view of surrounding areas; on clear days, you can see Mt. Shasta in California, Mt.



Adams in Washington, and the nearby Three Sisters Peaks. On weekends during the summer months, you can have a [Sunset Dinner at Pine Marten Lodge](#) (not a brewery). We have had the Sunset Dinner and liked the food and the beautiful vistas. We have



biked from Sunriver to the base of Mt. Batchelor. A round trip is about 50 miles, climbing from 4,153 feet in elevation to 6,404 feet in elevation. It's a challenging ride, and I had to remind myself "what goes up must come down." Coming back down from Mt. Bachelor is a lot of fun - I had to watch my speed a couple of times.



View from Top of Mt. Bachelor



Main Building



Gondola



Mountain Biking Information



Hiking Information



View from Base of Mt. Batchelor -
South Sister, Middle Sister, North Sister, Broken Top

CASCADE LAKES NATIONAL SCENIC BYWAY

Cascade Lakes National Scenic Byway is about 20 miles west of Sunriver. The Cascade mountains provide a very impressive backdrop as you travel the Byway. Mt. Batchelor views are spectacular. The lakes and their surroundings provide for boating, fishing, and hiking. The Pacific Crest Trail is also accessible from the Byway. There are many access points. If you would like to hike the PCT, you can access it from Sisters Mirror Lake Trailhead off the



Byway 2.8 miles north from Elk Lake. You can also hike a loop that is about 8 miles and has elevation changes of approximately 800 feet. Another popular activity is cycling. There are cyclists that bike the Cascade Lakes Loop. We haven't ridden the loop, but we have cycled from Sunriver to Elk Lake. It is a scenic ride of 38 miles one way with gradual elevation

changes. We met up with our family for lunch at Elk Lake Lodge after the ride. [Elk Lake Lodge](#) has rentals for canoes and paddleboards and are first come, first serve. You can also fish on this lake. There are other lakes around Elk Lake that can be accessed either by car (such as Cultus Lake) or by foot (such as Devils Lake).

TODD LAKE, GREEN LAKE, BROKEN TOP

Todd Lake is about 22 miles west of Sunriver and about 3 miles west of Mt. Batchelor. The road leading to the parking is not paved and is hard to drive in sections. The trail to the lake, which is about 2 miles round, is moderate. As with other hikes, bring sunscreen and bug



repellants. Once you get to the lake, you are rewarded with views of Mt. Batchelor and Broken Top.

Green Lakes Trailhead – About five miles west from Mt. Batchelor



is the trailhead for this trail. This trail leads you to Lower Crater Creek Falls. We hiked this trail, which is relatively easy and flat. As we continued the

trail, we noticed that the creek was getting more and more swollen until the trail was not passable due to the spring snow melt.

Although the more adventurous members of our family wanted to

keep going, the more cautious members prevailed, and we turned back. We became acquainted with the expression YOLO – You Only Live Once, which was the argument used to



proceed. We decided not to YOLO and the YOLO crowd was not happy with that. When we go back, we do want to retry the hike and hopefully make it to the falls.

Broken Top is a 300,000-year-old highly eroded stratovolcano, where the collapsed magna chamber has been shaped during the last glacial age. The Meriam-Webster dictionary defines a stratovolcano as a volcano composed of explosively erupted cinders and ash with occasional lava flows. Broken Top is southeast of the Three Sisters peaks and northwest of Mt. Batchelor. We hiked towards the top of Broken Top it was a 11.5 miles hike and is a moderate to difficult hike. It took us seven hours to finish the hike. There is a requirement to fill out a free day permit before starting a hike, as the information on the permit helps first responders in case of a search and rescue.



Glaciers on Broken Top



View from the collapsed chamber

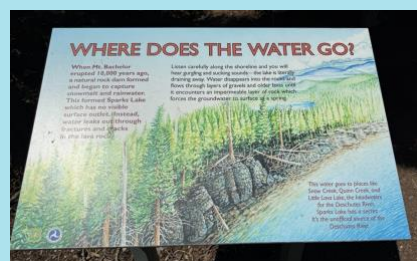
SPARKS LAKE

Sparks Lake is 5.6 miles west of Mt. Batchelor on the Cascade Lakes National Scenic Byway. The access road to the lake is not maintained and is a rough drive, but the drive is worth the payoff. The two-mile trail is called *Ray Atkeson Memorial Trail* and is an easy trail to walk or hike. The trail is named for Ray Atkeson, an avid nature photographer and Oregon state Photographer Laureate. The Atkeson Trail goes through lava fields created when Mt. Batchelor erupted about 10,000 years ago.

The lava fields had many deep openings, and we called them “mini crack in the ground” in reference to another geological feature in Christmas Valley (discussed under Pluvial Fort Rock Lake). The trail offers views of Mt. Batchelor to the east and Broken Top and South Sister mountain to the north



and west. The trail eventually reaches Sparks Lake, which was created by the snowmelt and rainwater trapped by natural rock dams. The lake has no visible surface outlet. Instead, the water leaks through the lava rock's cracks and fractures. As we were



walking by the shoreline, we could hear gurgling and sucking sounds as the lake is draining through the lava rocks. By the end of summer, the lake will be very shallow. We also learned that Sparks Lake has a secret – it is the unofficial source of the Deschutes River. The water from Sparks Lake travels approximately 15 miles south to Little Lava Lake, the official source of the Deschutes River.



Lava Fields – Cracks in the Ground



Mt. Batchelor through the trees



Inflated Lava on the Lake

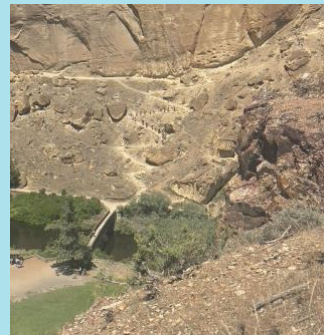


Sparks Lake, South Sister, Broken Top

DAY TRIP: SMITH ROCK & REDMOND

SMITH ROCK STATE PARK

The Park is 42 miles north of Sunriver and 9 miles north of Redmond. Smith Rock is a tuff rock formation from volcanic activities millions of years ago. The landscape was also impacted by lava flows from volcanic eruptions 500,000 years ago. The Crooked River made its mark as well. What you have now is Smith Rock, where the top of tuff walls are 600 feet higher than the



Crooked River. You can hike, mountain bike, rock climb, and ride horses in Smith Rock State Park. We have been to Smith Rock multiple times and have hiked Smith Rock. We began our hike by turn right after the bridge to access Misery Ridge Trail. This trail takes you to the top of Smith Rock and you will see Monkey

Face rock formation. We began our descent from Monkey Face by the Mesa Verde Trail, which merges into the River Trail. The River Trail will take you back to the bridge. This is a counterclockwise circuit. The views are spectacular. The hike can be difficult at times since it has steep climbs and at times it is easy by the river. The hike is



about 4.6 miles and took us two and half hours. To get to the trail from the parking lot the trail is steep down to the river and then gets steep as you climb from the river to the top. Please keep in mind as you hike into Smith Rock that the only way back to the parking lot is the same steep downward trail, now it is a steep upward climb. By the river there are areas that you can watch people with different expertise climb the rock cliffs.



Monkey Face rock formation on Misery Ridge Trail. Worth the hike to see this.



Crooked River flowing through Smith Rock

After visiting Smith Rock, stop by Redmond for beer or a bite to eat. We have listed couple of places in the write up for Redmond.

DAY TRIP: SISTERS, DEE WRIGHT OBSERVATORY, PROXY FALLS

SISTERS

Sisters is a city in Deschutes County 20 miles west of Redmond and 38 miles from Sunriver. The city takes its name from Three Sisters mountains that are on the horizon around it. The three Sisters mountains are part of the Cascade Range and were originally called Faith (North), Hope (Middle) and Charity (South). As mentioned previously, South Sister is the more active volcano of the Three Sisters. This is a good stop to eat lunch or get snacks and water for exploring areas west of it. Sisters also has numerous galleries, boutique shops that we like to frequent. If you like Alpaca wool products, [Alpaca By Design](#) is a good shop to shop at. After hiking



or pre hiking place is [Three Creek Brewing](#) (yes, another brewery) is a good spot to stop. When driving in from the east, you will reach the restaurant before you reach Sisters.

DEE WRIGHT OBSERVATORY



The Dee Wright Observatory (elevation 5,187') is 15 miles west of Sisters. The observatory, completed in 1935, sits in the middle of a black lava field from previous volcanic activities. The Observatory has great views of different Cascade mountains such as

Mount Jefferson, Three Sisters, Mount Washington, and Mt. Hood on a clear day. The windows in the observatory line up with the different mountains, and there is a plaque identifying the mountains. The best time of the year to visit the Observatory is summer, as the road can be seasonally closed in the winter.





Dee Wright Observatory



Mt. Washington



Lava Field

Also, from the Observatory you can access Lava River National Recreation Trail. This is a very easy half a mile interruptive trail in the lava fields.

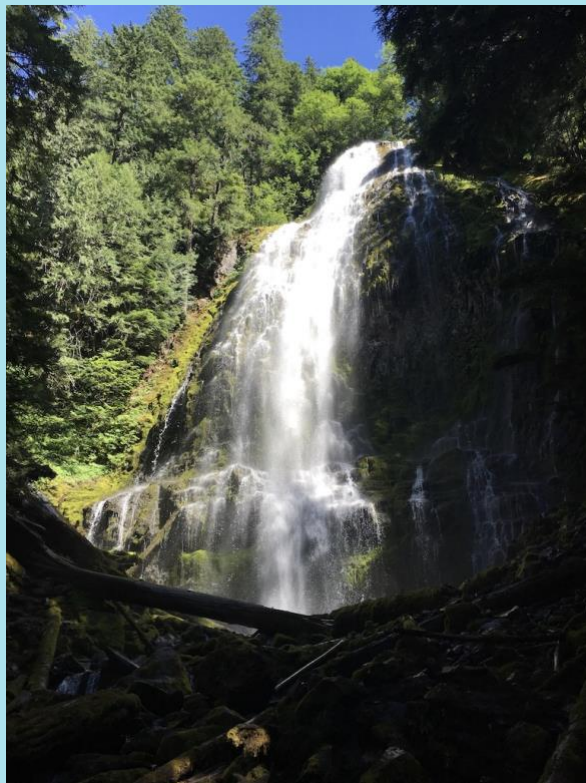
PROXY FALLS LOOP TRAILS

The falls are in the Three Sisters Wilderness Area. Proxy Falls is 13 miles west from Dee Wright Observatory on the McKenzie Highway: This Highway is closed in the winter. The landscape transitions from lava fields to a forest as you travel west. Parking is on the side of the road, and there are restrooms by the highway. There are two trails. The lower falls trail is relatively easy; the other trail takes to the upper falls trail. The upper trail is a little more strenuous, and there are some elevation changes that can be challenging.





Lower Proxy Falls



Upper Falls

FINAL THOUGHTS

We cherish our visits to Central Oregon. There are many activities to choose. It is nice to just sit by the Deschutes River as it flows by in Sunriver or the Old Mill district in Bend. We return to many sites on return trips, while also searching for new experiences. It never gets old.

Through this long post, we hope we have provided information to give ideas on what to do in central Oregon, whether it's walking, hiking, biking, kayaking, relaxing, or reading. We have thoroughly enjoyed every trip.