

LEG L: CARBON RIVER ENTRANCE VIA CARBON RIVER ROAD

The short (~8 mi or 12 km) Carbon River Road (or Fairfax Forest Reserve Road) diverges from State Route (SR) 165 (Mowich Lake Road) at about 1400 ft (427 m) elevation, roughly where the latter leaves the Carbon River canyon and the valley widens (Fig. L-1). After about 2 mi (3.2 km), it approaches the town of Fairfax. Fine deposits near here indicate that the area was inundated by a sequence of temporary glacial lakes that were formed when receding ice of the Puget lobe of the continental ice sheet blocked the Carbon River (Fig. L-2).

The road enters Mount Rainier National Park and passes through a forest of spectacular Douglas-fir trees before reaching Ipsut Creek Campground. However, much of this 5-mi (8 km) stretch of road in the park was destroyed in the flood of November 2006. The National Park Service is considering not rebuilding this road segment because the river, whose bed has aggraded, is a constant threat. Those who drive the primitive road from the national park entrance or who walk or bike in can access the network of trails that traverse the park, including one only 3.2 mi (5.2 km) long that leads to the terminus of Carbon Glacier, the largest glacier on Mount Rainier. The maps for this leg stop at the Carbon River Entrance to the park although the road log continues as far as Ipsut Creek Campground. You will need a trail map if you wish to hike or bike past the entrance.

Note: The status of roads and trails can be checked at the Mount Rainier National Park website or by contacting the park by phone. (See "Websites and Phone Numbers", p. 176.)

Distances along the route are given in miles, followed by kilometers in italics. If you take any of the optional side trips, you'll have to keep track of and add those miles to all the remaining mileages in the leg. Having a pencil and paper handy, and even a calculator will be helpful.

Mileage

- 0.0 Junction of SR 165 (Mowich Lake Road) with Carbon River Road (*aka* Carbon Glacier Road and Fairfax Forest Reserve Road). From southbound SR 165, bear left onto Carbon River Road.
- 0.0
- 0.4 If the weather is good, there are views of Mount Rainier from this area.
- 0.6

1.6 On Feb. 2, 2003, the road at about this location
2.6 suffered a collapse that was later attributed to possible subsidence of a coal mine. This type of subsidence is a concern in this area because of the numerous subsurface mines. Walsh and Logan (1989) summarized the extent of coal mining in Washington and provided an overview of the subsidence problem.

1.9 Lacustrine deposits, part of the ice-margin lakes
3.1 mentioned above, were mapped by Crandell and Miller (1974) near here, but are now covered by vegetation.

2.9 Bridge over Evans Creek, near the type locality of
4.7 the Evans Creek Drift (~22–15 ka). Manley Moore Road is about 100 ft (30 m) past the bridge.

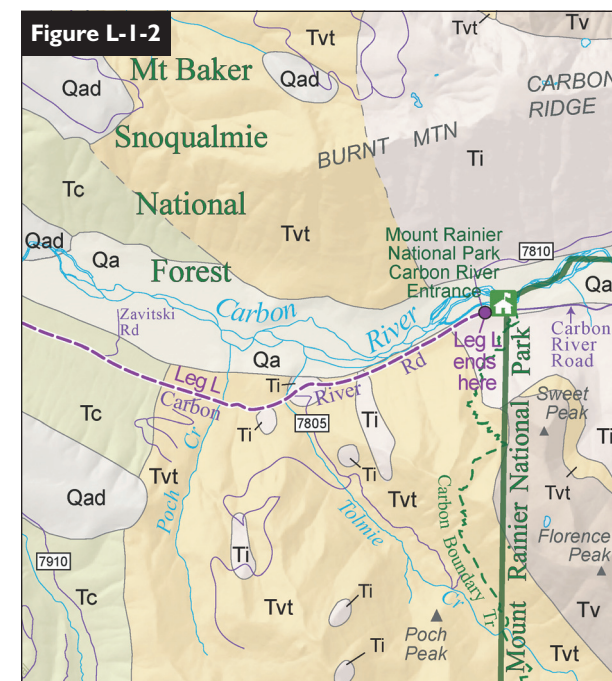
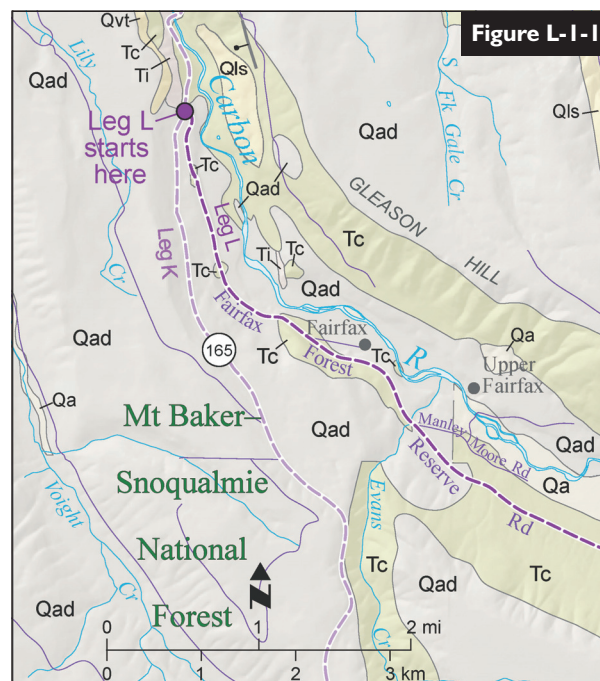
5.6 Note the large boulders in Poch Creek that were
9.0 carried here by a debris flow during a rainstorm in November 1995. Residents in the house just west of the creek heard intense rumbling as the debris roared down the channel. Poch Creek heads on

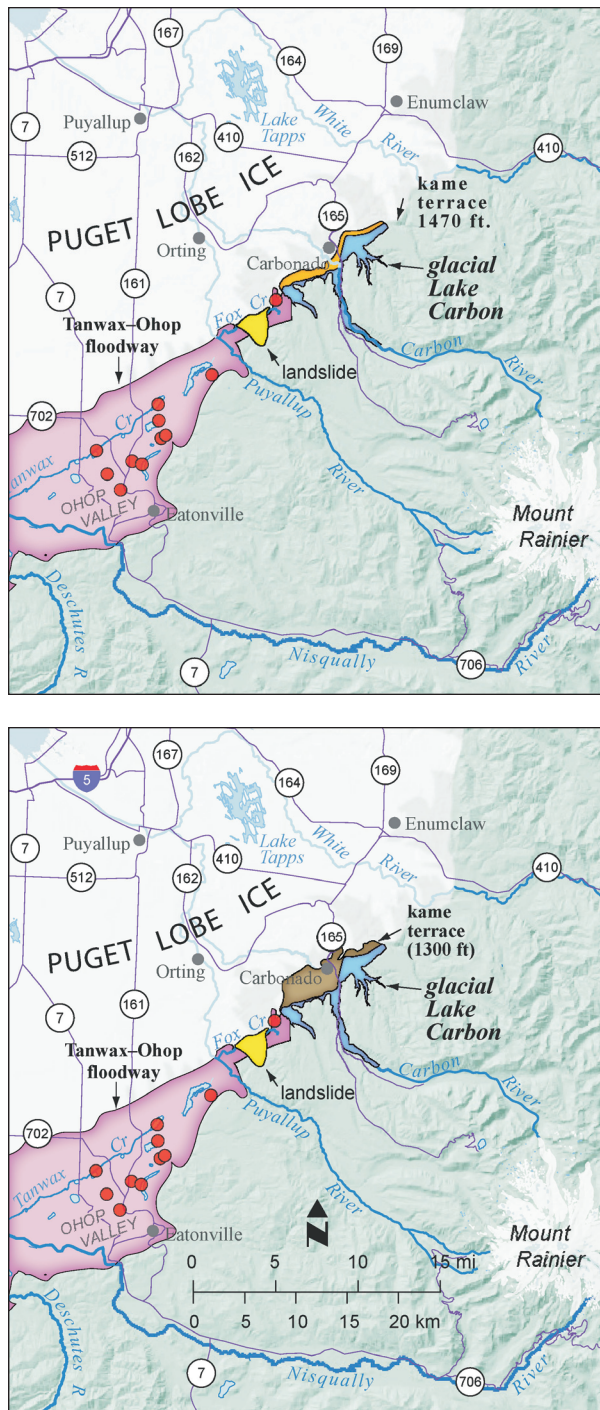
Poch Peak, about 2.8 mi (4.4 km) south-southeast of the here. The peak is composed mostly of Oligocene Ohanapechosh Formation.

5.8 This tributary to Poch Creek contains large boulders, also of debris flow origin.
9.3

6.1 Cross Tolmie Creek, which heads about 3.4 mi
9.8 (5.4 km) southeast of here at Tolmie Peak in Mount Rainier National Park. That peak is near where William Fraser Tolmie made his observations of Mount Rainier in 1833. (See "Historic Accounts of Activity at Mount Rainier", p. 13.)

Figure L-1. Geologic map for Leg L (two consecutive panels). The geology was adapted from 1:100,000- and 1:500,000-scale digital versions of Walsh (1987), Tabor and others (2000), and Schuster (2005) and has been draped over a shaded relief image generated from 10-m elevation data. The leg maps were constructed using source-map data whose scale is smaller than the leg map scale, thus minor exposures may not appear on leg maps. The map explanation is on the inside back cover.





- 6.4 Massive andesite bedrock is exposed on the right.
10.3
- 6.9 The road descends to the Carbon River.
11.1
- 7.6 One-lane logging bridge over the Carbon River.
12.2
- 7.7 Mount Rainier National Park, Carbon River Entrance, 1880 ft (573 m) elevation. The road is closed here. You can proceed on foot or by bike.
12.4

Figure L-2. (left) Diagrams showing portions of two stages of lakes that interconnected with glacial Lake Carbon (blue). Two kame terraces, orange (stage 1; elev. 1470 ft or 448 m) and brown (stage 2; elev. 1300 ft or 396 m), are inferred to have formed at the respective lake levels. The pink area is part of the floodway downstream of the lake. The flood inundated areas along the ice margin and probably merged with meltwaters from the Puget lobe near Rochester about 18 mi (29 km) south-southwest of Olympia. The landslide (bright yellow), which consisted of Pleistocene Lily Creek Formation and Wingate Hill Drift, likely blocked the meltwater channel during drainage, and thus enhanced the flood wave when the dam was breached. Some of the debris carried away by the flooding was deposited downstream as the lag of big boulders (red dots). The network of interconnected lakes was probably more extensive than that shown. Parts of some roads are shown. (See Fig. A-3, p. 55, for a more regional view of the flood area.)

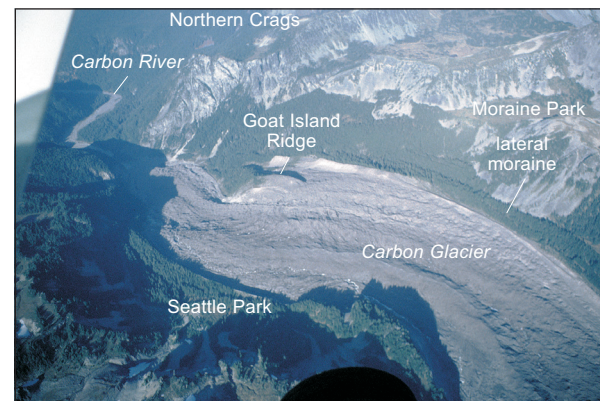


Figure L-3. Aerial-oblique view of the terminus of the Carbon Glacier taken in October 1999. The surface of the glacier in its terminal reach is almost entirely covered with rock debris. The Carbon River exits the snout of the glacier. The Wonderland Trail follows the righthand side of the right lateral moraine. View is to the north-northwest; an airplane strut is in the upper left.

- 10.5 Falls Creek picnic area.
16.9
- 10.7 Green Lake Trail trailhead. This trail ascends through some fine old Douglas-firs to Green Lake, a tarn.
17.2
- 11.1 Chenuis Falls Trail. Mother Mountain is visible from the parking area. The mountain is part of an andesitic sill complex with an average age between 23 and 21 Ma. It is lithologically and temporally distinct from the older andesites of the Fifes Peak Formation (Hammond, 2000).
17.9
- 11.9 Ipsut Creek Campground. The Carbon Glacier Trail is accessed from the far (south) end of the campground. It is about 0.5 mi (0.8 km) along the trail to Ipsut Falls, 3.2 mi (5.2 km) to a cable bridge that crosses the Carbon River, and 3.4 mi (5.5 km) to the Carbon Glacier terminus, a worthwhile destination (Figs. L-3 and L-4). At 3500 ft (1067 m), the terminus of the glacier is the lowest in the lower 48 conterminous states (Driedger, 1986). Those who choose to explore the area near the glacier's terminus should use caution because of the common rockfalls in that area.

You must retrace this route to access other legs. ■



Figure L-4. The rock-covered terminus of the Carbon Glacier with Mount Rainier in the background. The snout of glacial ice is visible in the center of the photo, the bed of the Carbon River in the foreground. Echo Cliffs borders the river on the right side of the picture. View is to the southeast from the cable bridge over the river on the Wonderland Trail. Photo taken August 2004.