

A Road Guide Along I-90 From Spokane to Coeur d'Alene

Spokane International Airport

Welcome to the Pacific Northwest. Natural resources were what first attracted French, English, and U.S. citizens to the area. The fur trade was established in 1810, and gold was discovered in 1860. Spokane, the "Lilac City," has a history tied to mining in the "Silver Valley" of Idaho. The town of Spokane Falls was platted by James Glover in 1878, and the Northern Pacific Railroad reached the townsite in 1881. Today, Spokane, Washington, a major city in the region, is known for aluminum manufacture, agriculture, timber, mining, medical centers, and Fairchild Air Force Base. Notable annual events include the Northwest Mining Convention and the Lilac Bloomsday Run. The trip time on Interstate-90 from Spokane east to Coeur d'Alene is 45 minutes.

Junction of West Airport Road and US-2

Geologically, Spokane is near the margin of the Columbia Plateau with the Northern Rocky Mountains. The Columbia Plateau is underlain by lava flows of the Columbia River Basalt Group erupted during the Miocene epoch between 17 and 6 million years ago. These basalts are among the largest terrestrial basalt flows known on earth. Classic basalt columns of the Priest Rapids Member are exposed in roadcuts leading to and from the airport. The near perfect six-sided joint columns were formed as the 2,100°F molten rock cooled. The deposits between the separate flows are interbeds of the Latah Formation and contain the fossils of a warm temperate Miocene flora similar to those of central China and the southeastern United States today. A Quaternary deposit of wind-blown silt called loess forms the Palouse Formation that blankets much of the Columbia Plateau. This rich deposit is the basis of dry farming on the rolling Palouse country. Here on the Spokane Plains the loess was stripped and the underlying basalt was scoured during catastrophic Ice Age floods from Glacial Lake Missoula. The Spokane or Missoula floods, as these events are called, formed landscape that has been referred to as "scabland." In this area is the beginning of the Cheney-Palouse Scabland tract of anastomosing channels that stretch 85 miles south to the Snake River. The landscape between Spokane and Coeur d'Alene is dominated by erosional and depositional landforms of the latest Ice Age floods. These geologic events occurred about 15,000 to 12,000 years ago and periodically released as much as 500 cubic miles of water from Glacial Lake Missoula.

Junction of US-2 and I-90

Interstate-90 descends Sunset Hill. A view of downtown Spokane is directly ahead. The mountains beyond are the western foothills of the Northern Rocky Mountains. At the

bottom of the grade the Interstate and railway viaducts span the valley of Latah Creek that has cut through the Spokane Flood deposits.

Junction of US-195

Just south of here along highway US-195, the valley slopes reveal as many as fourteen major Missoula flood events separated by nonflood deposits. To the north Latah Creek joins the Spokane River near the site of old Fort George Wright. The flow of the Spokane River has sculpted the basalt into forms like "the bowl and pitcher" in Riverside State Park.

The Interstate passes east-west through Spokane. Historic buildings in this downtown area include the Davenport Hotel and the Paulsen Building. The large pavilion, visible to the north in nearby Riverfront Park, was built for the 1974 World's Fair. The elevation at the top of Spokane Falls is about 1,860 feet. Just south of the Interstate are hospitals and medical facilities that serve the Inland Empire.

Hamilton Exit

Basalt outcrops can be seen in roadcuts of the Interstate and in Liberty Park on the south. Lava flows filled the Spokane Valley to an elevation of at least 2,400 feet, but from here to Coeur d'Alene only small remnants of the flows have survived erosion.

Sprague Exit

The Interstate curves into the Spokane Valley. The rounded summit of Mount Spokane (elevation 5,878 feet) is visible to the northeast on the skyline. Scenic viewing is excellent from the Vista House in Mount Spokane State Park, and the panorama covers parts of not only Washington but also Idaho, Montana, and Canada. A ski area occupies the eastern slope. The bedrock on the north side of the valley is the Precambrian Priest River Crystalline Complex that is over 1.5 billion years old. The Precambrian rocks south of the valley are mostly metasediments of the Proterozoic Belt Series.

Broadway Exit

The flood gravels of the Spokane Valley and the Rathdrum Prairie are the sole source aquifer for 400,000 people in the Spokane-Coeur d'Alene area. Every day 350 to 650 million gallons of ground water passes westward under the state line. The "underground river" moves nearly 100 feet a day and is pumped at a daily rate of 125 to 680 million gallons into the orange and white storage tanks visible throughout the valley. The aquifer gravels in the valley are as deep as 500 feet and are also an important source of construction aggregate.

gate. Several large gravel pits intercept the water table at about 75 feet.

Argonne Exit

The red roof of the Riblet Mansion, now a commercial winery, is visible atop the basalt cliffs on the north. Riblet tramways are known worldwide. Visitors can ride a Riblet gondola from Riverfront Park across the Spokane Falls. On the south, the Dishman Hills Natural Area, a north-trending ridge of Precambrian bedrock, narrows the Spokane Valley. Missoula flood waters exceeded an elevation of 2,700 feet here and left huge boulders scattered on the scoured bedrock of Dishman Hills.

Pines Exit

North of I-90 a large flood pendant bar trails to the west on the lee side of the scoured bedrock knobs. The knobs are Precambrian Newman Lake Gneiss, part of the Priest River Complex. A prominent terrace of flood gravel to the south parallels I-90 for several miles.

Sullivan Exit

The Kaiser Aluminum Trentwood plant and the acre-size buildings of the Spokane Industrial Park, formerly a U.S. Naval Supply Depot, are visible north of the Spokane River. On Sullivan Road a parking area provides easy access to the Spokane River Centennial Trail, a 35-mile-long hiking and bicycle path from Spokane to Post Falls.

Liberty Lake Exit

Three golf courses occupy a large gravel deposit that impounds Liberty Lake. Originally thought to be glacial moraines, these deposits are now recognized as catastrophic flood bars. Most tributary valleys of the Rathdrum Prairie contain similar flood-dammed lakes like Newman, Hauser, Spirit, Hayden, and Twin.

Port of Entry

Idaho/Washington border. The state line is the northward extension to the Canadian border of a meridian located at the confluence of the Snake and Clearwater rivers about 115 miles to the south. The Interstate crosses the Spokane River, which begins at Coeur d'Alene Lake.

Pleasant View Exit

Jacklin Seed Company on the south. The Rathdrum Prairie is one of the world's largest producers of bluegrass

lawn seed. Extensive fruit orchards once dominated the Spokane Valley; only a few remain.

Post Falls Exit

Treaty Rock is the site where Frederick Post contracted with Chief Seltice in 1871 to purchase the waterfall from the Coeur d'Alene Tribe. For years electricity from Post Falls supplied power to the Coeur d'Alene mining district 30 miles to the east. The present-day dam controls the flow of the Spokane River from Coeur d'Alene Lake, the second largest lake in Idaho.

Coeur d'Alene Exit

Coeur d'Alene, the "City-by-the-Lake," has a history of mining, logging, and recreation. It began as a military fort established by General William Tecumseh Sherman in 1879. Coeur d'Alene was the name French fur traders gave early in the nineteenth century to the shrewd Indians in the region. It means "heart as pointed as an awl" in respect of the Indians' sharp trading savvy. In the 1880s, the discovery of gold and silver in the Coeur d'Alene mountains kindled a mining boom. The Silver Valley has more recorded silver production than any district on earth. At the turn of the century dozens of steamboats plied the lake carrying tourists on popular excursions; by the 1930s the steamers had all but disappeared. Today tourists can enjoy the scenery from modern excursion boats. Lumbering and forestry have played a long and persistent role in the growth of the area, and modern forest nurseries are also an important industry. Lake Coeur d'Alene is dammed by the flood gravels from Glacial Lake Missoula, except for a Precambrian bedrock knob, Tubbs Hill (see *GeoNote 25* for a brief explanation of the Tubbs Hill geology). The dam of gravels produced the "drowned topography" of the lower Coeur d'Alene and St. Joe rivers and the numerous bays and extensive shoreline of the lake.

Additional reading from the Idaho Geological Survey:

GeoNote 25. *Walking Field Trip in Tubbs Hill Mylonites, Coeur d'Alene, Idaho.*

GeoNote 26. *Glacial Lake Missoula and the Spokane Floods.*

Bulletin 28. *Guidebook to the Geology of Northern and Western Idaho and Surrounding Area.*

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