



The Wasatch Range is one of hundreds of normal-fault-bounded ranges in the Great Basin. This is the range that forms the east side of the Great Salt Lake and whose waters had been irrigating Mormon farms around Salt Lake City and Ogden for 20 years when the Union Pacific arrived in 1869. The Wasatch Range forms a veritable wall with elevations of more than 10,000 feet and would be impenetrable to railroads except that a "water gap" exists. About 10 million years ago, before the uplift of the Wasatch and other normal-fault ranges in the Basin and Range geologic province (Great Basin hydrologic province), a river flowed westward across the area from the Rocky Mountains (which are 50 million years old). Down-cutting of the river kept pace with the rise of the range and maintained a water gap through the range, represented now by the Weber River, which flows into Great Salt Lake, and a tributary of the Weber River, Echo Canyon. Thanks to this water gap, the UP mainline west of the Aspen and Altamont tunnels is able to follow a constant downhill grade from Wyoming into Utah and through the Wasatch range "wall" to the Great Salt Lake.

In this northeastward view at Echo, Utah, where the UP arrived in late 1868, a westbound UP container train is coasting down Echo Canyon just above the canyon's confluence with the Weber River.



This photo is taken from the same location as the previous photo and shows the same westbound UP container train. The train is going into a 90-degree right turn to head northwest down the Weber River. Some of the heaviest construction on the UP route was between this point and Ogden, where the UP follows the Weber River through the heart of the Wasatch Range and the deepest and most rugged part of the Weber River Canyon water gap. Thousands of Mormon workers built the tunnels and trestles needed to negotiate the 30 miles between this point and the mouth of the canyon near Ogden. Note the overgrown branch line in the left foreground, which is the Echo-Park City Railway, built in 1880.



In 1871, the Summit County Railroad Company built a narrow gauge railway 5 miles southward from the UP mainline at Echo up the Weber River to coal mines around Coalville (not shown separately on the map). In 1880, the Utah Eastern Railroad added 23 miles to the narrow-gauge line, building southward from Coalville along the Weber River to silver mines at Park City. At the same time, the UP constructed the Echo-Park City Railway, a standard-gauge spur line, alongside and just west of the narrow gauge line. The narrow-gauge lines were subsequently abandoned and, in 1989, UP abandoned the 28-mile E-PC line.

This bridge carries the E-PC grade over Interstate-80 to the UP mainline at Echo; a few hundred feet of E-PC track was left in place for car storage, seen at the far end of the bridge and in detail in the previous photo. The E-PC grade is now a popular rail-to-trail. I could find no evidence of the narrow-gauge grade.



This steel and wood bridge carries the E-PC over a road near Echo, Utah, and is now part of the Historic Union Pacific Rail Trail.



The E-PC grade 4 miles south of the UP mainline at Echo. Note the culvert to allow runoff to flow under the grade. Echo Reservoir, an impoundment of the Weber River, is in the background.



The E-PC grade 5 miles south of the UP mainline at Echo. The grade crosses wetlands along the Weber River just south (upstream) of Echo Reservoir.