During the last ice age, a lobe of the Cordilleran Ice Sheet formed an ice dam that blocked a major valley in what is now eastern Montana, creating Glacial Lake Missoula. Between 15,000 and 13,000 years ago the ice began to recede and the lake periodically breached the ice dam. These breaches created an estimated 40 catastrophic floods that flowed westward during this time period. These ice-age floods, also known as the Missoula Floods, swept across what is now eastern Washington and onward to the Pacific Ocean along the Columbia River corridor. The floods scoured the landscape on a massive scale, leaving eroded scarred terrain known as the Channeled Scablands. Flooded areas were often scoured down to bedrock, as can be seen east of Sprague Lake and the Karakul Hills. In the Cheney-Palouse scablands region, the former channels are also preserved by a series of lakes. The largest and deepest scabland lake is Rock Lake, in the northeast portion of the map.

Flooded areas were often scoured down to bedrock, as can be seen east of Sprague Lake and the Karakul Hills. In the Cheney-Palouse scablands region, the former channels are also preserved by a series of lakes. The largest and deepest scabland lake is Rock Lake, in the northeast portion of the map.

This map shows the topographic evidence of the Missoula Floods on a portion of the Channeled Scablands in eastern Washington known as the Cheney-Palouse scabland tract. Smooth, linear features are former channels of the floods, while the more textured land adjacent to the pathways was higher in elevation and was thus unaffected by the flooding.

In the area adjacent to the flooded channels, much of the landscape is covered in loess (windblown glacial silt). Loess covers the agriculturally productive Palouse region, an area of rolling hills in the southeastern corner of the map.