

Geology: Outstandingly Remarkable Values

Forest Service Handbook Criteria:

The river corridor contains one or more examples of a geologic feature, process, or phenomenon that is unique, rare or exemplary within the region of comparison. The feature(s) may be in an unusually active stage of development, represent a “textbook” example, or represent a unique, rare or exemplary combination of geologic features (erosional, volcanic, glacial, or other geologic structures).

Region of Comparison:

United States Geological Survey’s Physiographic Provinces were chosen as the region of comparison for geology. Within the forest boundary there are two USGS physiographic provinces: Columbia Plateau and the Northern Rocky Mountains. A physiographic province is a geographic region with distinct landscape characteristics and commonly distinct rock types. The Northern Rocky Mountains consist largely of dissected uplands, not related to specific uplifts. The Northern Rocky Mountains includes mountains lying north and west of Yellowstone Park and into Canada. The Columbia Plateau is the area between the Northern Rocky Mountains and the Cascade Range and Basin and Range Province. The Columbia Plateau is distinguished as a plateau surface on a substratum of lava.

For the most part, the Nez Perce-Clearwater National Forests do not have very many water-related ORV’s (features directly related to water/streams). The Region of Comparison also includes Glacier National Park, Flathead National Forest, Kootenai National Forest, Idaho Panhandle National Forest, Beaverhead-Deerlodge National Forest, Payette National Forest, Custer Gallatin National Forest, Salmon Challis National Forest, Sawtooth National Forest and the Helena and Lewis and Clark National Forest. With such a large region of comparison, the geological ORV’s truly have to be outstanding in order to be considered.

Some of the features that would be distinct geologic features are gorges, arches, badlands, oxbows, caves, relic shorelines, bogs, waterfalls, deep canyons, hot springs and unique rock formations and outcrops.

USGS.gov, Geographic Names Information System (GNIS) is a searchable database that we used to locate major waterfalls, cliffs and pillars. Other waterfalls known locally were also considered.

We found six streams that we thought had unique or exemplary geologic features. The series of hot springs in Warm Springs Creek (known as Jerry Johnson Hot Springs) is one of the best examples of hot springs found in the region of comparison.

The GNIS included several pillars along the North Fork Clearwater and Kelly Creek, but these are not unusual in the region of comparison.

We determined that the waterfalls located in Cliff Creek, Falls Creek and Lost Pete Creek in the North Fork Clearwater subbasin and the combination of Big Mallard and Noble Creek are outstandingly remarkable.

There is one major cave on the forest, but it is not associated with a river or stream.

The Nationwide Rivers Inventory (NRI) mentioned several rivers with interesting geologic features. We considered this information in our review. Whistling Pig Canyon (tributary to Lake Creek in the Salmon River subbasin) has orbicular granite which is relatively rare, but this is not associated with the stream. Other geologic features listed in the NRI are not unique or exemplary in the region of comparison.