

Barker Dam

- The Barker Dam is a gravity dam that began being constructed in 1906.
- It was named after the original owner of the land Mrs. Hannah Connell Barker.
- The Central Colorado Power Company designed and built the dam to provide electricity to small mining camps as well as Denver.
- The dam is located in Boulder County just east of Nederland.
- The surrounding geology consists mostly of granite and metamorphic rocks.
- The granite bedrock has escaped most affects of glacier erosion.
- Some affects of wind and water erosion have occurred leaving the bedrock loose and crumbly.
- Originally the construction of the dam was started in 1906 by the Eastern Colorado Power company but then it was taken over by the Central Colorado Power Company in 1908.
- Concrete, lifts, and plums were used to construct the dam.
- A low strength grout was used in between the lifts to hold them together which made the dam prone to leaking. In 1946 large aggregate was placed between the dam and a large precast cement slab and grouted in place to prevent further leaking.
- To further reinforce the dam it was post tensioned with high strength cables.
- Materials were transported by teams of up to 16 horses from Orodell to Nederland.
- To counter the stress caused by the 1,828 foot drop in elevation from the dam to the power plant ball-peen welding was invented in 1909.
- Barker Dam was the first in the world to use pre-stressed concrete.
- In June of 2000 the dam reached its capacity and water was able to flow over the top of the dam.
- Majority of its water comes from runoff from Arapahoe Glacier and snowmelt from Indian Peaks.
- Today it provides 40 percent of Boulder's drinking water.