

UNCOMPAHGRE PROJECT, GUNNISON TUNNEL  
Gunnison River  
Montrose vicinity  
Montrose County  
Colorado

HAER CO-95  
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
U.S. Department of the Interior  
1849 C Street NW  
Washington, DC 20240-0001

**HISTORIC AMERICAN ENGINEERING RECORD**  
**UNCOMPAHGRE PROJECT, GUNNISON TUNNEL**

**HAER No. CO-95**

**Location:** Gunnison River, Montrose vicinity, Montrose County, Colorado

**Dates of Construction:** Uncompahgre Project, 1903-1923  
Gunnison Tunnel, 1904-1909

**Engineer:** Ira W. McConnell, resident engineer, 1903-1907

**Builder:** Taylor-Moore Construction Company, then U.S. Bureau of Reclamation

**Original Owner, Use:** U.S. Bureau of Reclamation, irrigation

**Current Owner, Use:** U.S. Bureau of Reclamation, administered by Uncompahgre Valley Water Users' Association; irrigation

**Significance:** The Uncompahgre Project, initially begun by the state of Colorado, was one of the first five projects taken up by the Bureau of Reclamation. The Gunnison Tunnel was the first tunnel built by the bureau. It has been significant in reshaping the development of the Uncompahgre Valley of western Colorado.

**Description:** The purpose of the Gunnison Tunnel was to carry irrigation water from the Gunnison River to the Uncompahgre Valley and the irrigated fields located there. The Gunnison River passes through a 1,800' gorge in western Colorado known as the Black Canyon of the Gunnison. This gorge, which is the one of the most spectacular geographical features in the United States, is the location of the diversion dam of the Uncompahgre Project that turns water into the Gunnison Tunnel.

The total length of the Gunnison Tunnel is 5.8 miles. It has an almost square cross section with an arched roof. The tunnel is about 11' wide and has a height of 12' to the top of the arch. It is built on a grade of 0.2 percent, which gives a velocity of 10' per second to the water when the tunnel is running full. The capacity of the tunnel is over 1,000 cubic feet of water per second.

**History:**

The idea of the diversion of the Gunnison River was first taken up by the State of Colorado in 1901, but the funds had all been expended by 1902 and it was consequently abandoned. However, the Bureau of Reclamation began a similar inter-basin diversion in 1902. The core of the project was the Gunnison Tunnel, begun in 1905 by the Taylor-Moore Construction Company. When the company went bankrupt that same year, the U.S. Bureau of Reclamation took over the project and finished it.

Construction of the tunnel was carried on at four headings. The first heading was begun at the Gunnison River and carried westward through granite and hard crystalline rock. The second and third headings were driven east and west from a single shaft located a short distance from the west portal. The fourth heading was driven eastward from the west portal through a loose gravel and adobe formation. Most of the tunnel was dug through solid rock, and extreme heat, humidity, and lack of ventilation often made work unbearable. Large amounts of hot water and carbon dioxide were encountered while drilling the tunnel, which made conditions even more hazardous. These problems added to the cost of the Gunnison Tunnel, which at \$3 million or \$100/foot was considerably higher than similar projects constructed during this period.

The Uncompahgre Project was dedicated on September 23, 1909, with President Howard Taft, Secretary of the Interior Richard A. Ballinger, Senator Charles Hughes, Representative Edward Taylor, and Colorado Governor John F. Shafroth all in attendance. This project was largely responsible for the economic growth of the Montrose, Colorado, area.

**Sources:**

Anderson, Harold, Manager, Uncompahgre Water User's Association, Montrose, Colorado. Interview by field team, July 27, 1971.

Beidleman, Richard G. "Gunnison River Diversion Project. Part II." *The Colorado Magazine* XXXVI, no. 4 (October 1959): 266-285.

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"The Black Canyon of the Gunnison, Today and Yesterday." U.S. Department of the Interior. Geological Survey. Bulletin No. 1191. Washington, DC: Government Printing Office, 1965.

Davis, Arthur Powell. *Irrigation Works Constructed by the United States Government*. New York: John Wiley & Sons, Inc., 1917.

Page, Arthur W. "Running a River Through a Mountain." *World's Work* XIV, no. 5 (September 1907): 9322-9330.

Wilhelm, Albert. "The Great Gunnison Irrigation Project." *Scientific American Supplement* LXVIII, no. 1749 (September 18, 1909): 184-185.

**Historians:** Steve Rae and T. Lindsay Baker, July 27, 1971 and January 10, 1972

**Project**

**Information:**

The Uncompahgre Project, Gunnison Tunnel was inventoried for the Historic American Engineering Record as part of the Southwest Water Resources Project, a joint project with the Texas Tech Water Resources Center. The survey was subsequently published as *Water for the Southwest: Historical Survey and Guide to Historic Sites* by the American Society of Civil Engineers in September 1973.