

PROJECT PROFILE



Platoro Dam Monitoring and Control System Platoro, Colorado

Client:

Conejos Water Conservancy District

The Conejos Water Conservancy District (CWCD) undertook a project to upgrade the existing Automated Data Acquisition System (ADAS) equipment at the Platoro Dam project. Platoro Dam is on the Conejos River about 1 mile above the town of Platoro, Colorado. It is an earth filled structure consisting of a main embankment and a dike section, separated by a rock knoll in which the spillway is excavated. The maximum embankment height is 165 feet, and the reservoir formed by the dam has a capacity of 59,570 acre-feet. At approximately 10,000 feet above sea level, Platoro Dam is the highest man made dam in the United States. The reservoir and dam

provide flood control, irrigation water supply, recreation, and fish and wildlife enhancement.

The old ADAS equipment had become obsolete and limited maintenance support was available from the manufacturer. Engineered Monitoring Solutions was hired to design and install a replacement ADAS for the monitoring and control system. The ADAS at Platoro Dam is primarily used to monitor the elevation of Platoro Reservoir and to monitor and control the discharge flow from the reservoir into the Conejos River.

This discharge is controlled by two release valves at the outlet of the dam that can be operated locally at the dam or remotely from either one of two Network Monitoring PCs using dial-up modems and the public switched telephone network. The ADAS is also used to remotely control a phase converter that converts single phase AC power to 3-phase for operating the valve motor drives and an emergency generator. In addition, the ADAS is programmed to place a telephone call and notify CWCD personnel if unauthorized entry into the valve house is detected.

