SAN ANTONIO DAM

A Tunnel Radio case study

TUNNEL RADIO DELIVERS CRITICAL SAFETY NET FOR SOLO WORKERS AT SAN ANTONIO DAM

"It was an honor to be chosen by MCWRA to design and implement this solution, and we look forward to supporting them for many years to come."

—Jay Murray, Infrastructure Solutions, Tunnel Radio

An earth fill dam on the San Antonio River, the San Antonio Dam is a key source of water supply for the Salinas Valley residents in central California. Completed in 1967 for flood control, water conservation, and recreation, the dam impounds San Antonio Reservoir, a reservoir with a capacity of 335,000 acre-feet, and is owned and operated by the Monterey County Water Resources Agency (MCWRA).

Due to California's severe weather, including droughts and storms, the San Antonio Dam requires much monitoring and management. Being a smaller operation with a 600-foot gallery, the dam typically only has one employee working alone in the gallery at any given time. This has raised significant safety concerns for MCWRA, as cell tower signals don't reach the gallery floor, leaving lone gallery workers unable to call for help or assistance from the main office.

At best, the lack of clear, reliable communication presents operational inefficiencies for solo workers, who must traverse the 600 feet of gallery space to fetch tools or pass along messages to the main office. At worst, it could be life-threatening, leaving employees unable to call for help during an emergency.

For a solo worker in the tunnel, two-way radios between the gallery and office wouldn't be enough: they need to be able to access the public phone network for faster assistance in the event of an emergency. To address this critical safety challenge, MCWRA contacted Tunnel Radio of America in 2021 to develop a communication system that would enable workers in the dam to have both radio and phone access from anywhere in the gallery.

Our solution was a two-way radio system connected to the Public Switch Telephone Network (PSTN), so dam workers could radio the office or call any phone number, including emergency services, from the gallery floor.

"Working together with Tunnel Radio, we were able to collaborate on a system that not only enhances our operational efficiency, but provides critically needed, life-saving communication access for our employees in the dam." *—Russ Yoshimaru, Management Specialist, Monterey County Water Resources Agency*

The system consisted of our Ultracomm® digital radiating coaxial cable solution (leaky feeder) and amplifier connected to the PSTN interconnect device to deliver a strong radio signal with telephone connectivity throughout every square foot of the tunnel. We developed, implemented, and fully trained MCWRA staff on the system, ensuring they could clearly and easily communicate via radio and phone from anywhere in the dam—increasing operational efficiency and worker safety.

ABOUT TUNNEL RADIO

Tunnel Radio of America brings 35 years and over 1,000 underground miles of expertise to every challenge. To learn more about how Tunnel Radio can provide effective wireless systems for your projects, please visit our website at **tunnelradio.com** or contact us directly.