

# underground

## Virtual & In-Person

# LUNCH & LEARN

## ACCELERATED REHABILITATION OF THE WHITE ROCK TUNNEL

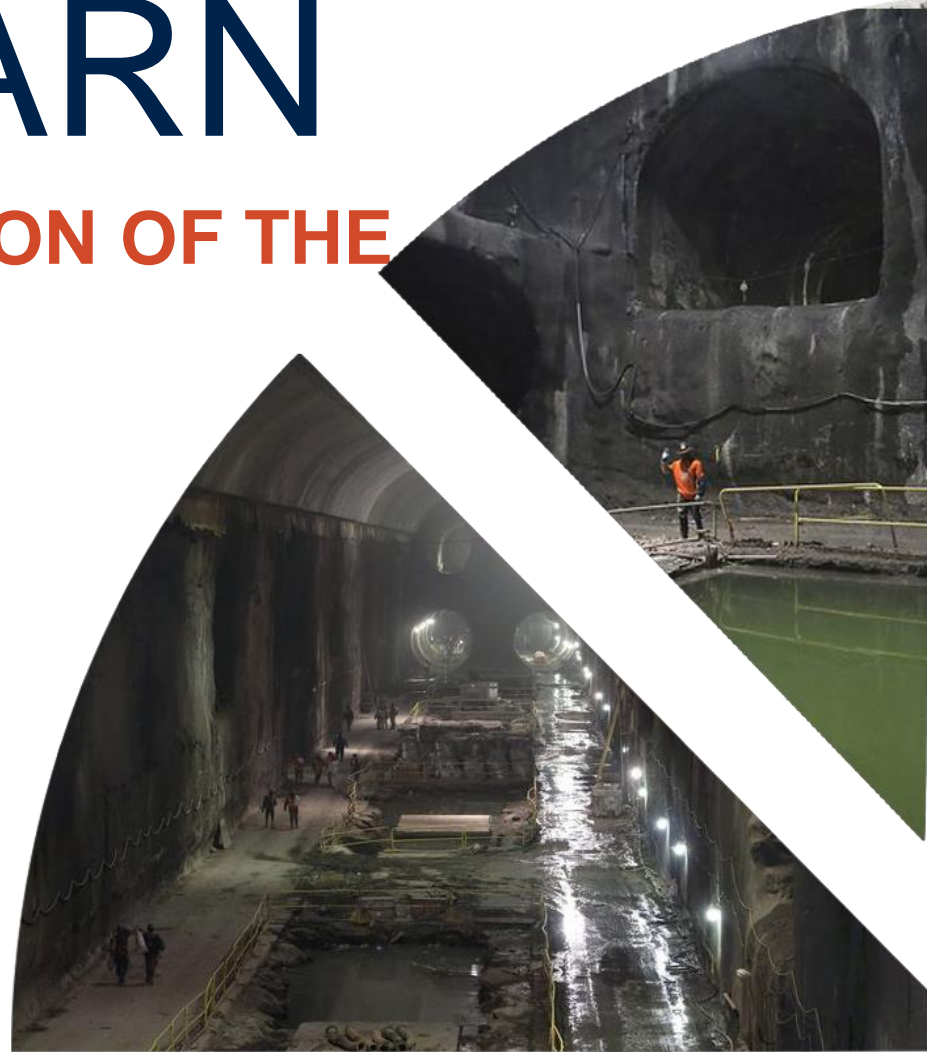
November 10th, 12-1PM

When unwatered after more than 50 years of operation, the White Rock Tunnel of the Upper American River Project in the foothills of the Sierra Mountains exhibited failing rockbolts and ground falls. Repairs designed for the 5 mile-long, 24-foot horseshoe unlined hydropower tunnel included pattern rock bolts, shotcrete, and cleanout of the rock trap. The work, originally scheduled for two 3-month winter outages, was completed under challenging conditions in a single 4-month outage following a carefully sequenced work plan using robotic shotcrete and rockbolter machines. Flexibility, creative solutions, and collaboration by all parties were key to project success.



David is a Vice President with Mott MacDonald and is based in Lakewood, Colorado. He has 39 years of engineering and construction management experience in the design, construction, and rehabilitation of underground structures, and infrastructure for hydroelectric power plants and water resource project in North America and overseas. In his

nearly 20 years with Mott MacDonald, he has supervised design and construction of new tunnels, tunnel rehabilitations, geotechnical site investigations, detailed engineering designs, and construction engineering for numerous difficult soft ground and rock underground projects. His support of permitting and licensing efforts for underground projects has included completion of technical studies, alternatives analysis, development of construction budgets and contingencies, and participation in public hearings. He has served on Dispute Review boards, value engineering boards, independent technical review boards and testified as an expert witness.



**November 10th, 12-1 PM**

**Berthoud 241**

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