New Mexico Environment Department partners with Google Public Sector and Woolpert Digital Innovations to identify water leaks statewide

Groundbreaking solution uses remote sensing satellites and Al

SANTA FE, N.M., Sept. 4, 2024 / PRNewswire -- Today, the New Mexico Environment Department (NMED), Google Public Sector, and Woolpert Digital Innovations announced Hydro Delta, a new initiative that leverages satellites and artificial intelligence to identify water leaks, often located underground.

This innovative technology will enable NMED to provide accurate and reliable data to community agencies for better water management, potentially saving millions in both dollars and gallons of water lost.

"Hydro Delta is a game-changer for New Mexico's drinking water, especially those systems serving rural New Mexicans," said Environment Secretary **James Kenney**. "Thanks to the guidance of Gov.Michelle Lujan Grisham's 50-Year Water Action Plan, our state is taking the lead in protecting our most precious resource in the face of climate impacts that threaten our water security."

In some New Mexican water systems, 40% to 70% of treated water is lost from leaks, primarily due to aging infrastructure. These leaks are often extremely difficult to locate and fix, especially in small, rural communities with limited staffing and resources.

Hydro Delta helps communities with timely and hyperlocal insights derived from millions of satellite images. Leveraging Earth Engine, Google's world-leading platform for the development and deployment of Geospatial AI, Woolpert has developed a Continuous Change Detection Platform that monitors key water indicators, such as soil moisture, vegetation health, and temperature. The system finds anomalies, many of which will not be apparent to human observers on the ground. It then reports them in an intuitive interface for decision makers.

"Ensuring access to clean, reliable drinking water is a priority for every state, and Hydro Delta showcasesNew Mexico's innovative leadership in using AI to protect this critical resource," said **Brent Mitchell**, Vice President, Go-to-Market at Google Public Sector. "Together with Woolpert, we are proud to power this initiative with Google Earth Engine and our cloud AI technology to help improve the overall sustainability and quality of the state's water systems."

Hydro Delta plays a crucial role informing the inspection strategies for leaking systems, and will minimize cost and search times. When a potential leak is detected, NMED staff will notify one of New Mexico's 1,100 water systems for investigation. The Bipartisan Infrastructure Law provides low-interest loans and grants to water systems, including the replacement of lead pipes, per- and polyfluoroalkyl substances (PFAS) identification, and general system updates. These federal funds increase opportunities for local water systems to secure funding to fix leaks.

"Woolpert is thrilled to partner with Google Public Sector and the New Mexico Environment Department on this groundbreaking initiative," said **George Azzari**, Director of AI at Woolpert Digital Innovations. "By leveraging our advanced geospatial expertise and Google's cutting-edge technology, Hydro Delta is poised to revolutionize how we identify and address water leaks across the nation. This tool is a testament to our commitment to developing innovative solutions that protect our most precious resource."

Water leaks pose an enormous challenge to New Mexico communities. In the Summer of 2022, the Village of Chama experienced a multi-week leak that resulted in a systemwide outage during the peak summer tourism season. With the use of aerial flyovers and satellite data, contractors were able to locate the source of the leak and resolve the issue. That success story was one of the key inspirations for Hydro Delta.

NMED and its partners envision Hydro Delta as a catalyst for identifying and solvingNew Mexico's water leak issues, and a blueprint for water security and sustainability solutions across the nation. NMED estimates it will save New Mexican water systems up to \$154 million.

The Hydro Delta project advances <u>New Mexico's 50 Year Water Action Plan</u>, with a primary component of the plan being to reduce leaks in drinking water infrastructure and increasing municipal conservation. To learn more about how Google Public Sector partners with government agencies on innovative ideas to improve constituent services, visit <u>here.</u> For more information about Woolpert Digital Innovations, visit https://innovations.woolpert.com.

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