

How QD RAWS Is Helping Ventura County Control Wildfire Risk



Establishing a wildfire monitoring network

OVERVIEW

Did you know Ventura County, California has been rated the [most at-risk county](#) in the [most at-risk state](#) for wildfire?

In their efforts to manage this risk, county officials do their best to stay aware of exactly when and where conditions are most conducive to the spread of fire. And that means closely monitoring local temperatures, as well as humidity, wind, fuel moisture levels, etc.

Here's the challenge: In a county that is almost twice the size of Rhode Island and ranges in elevation from 50–8,800 feet (15–2,690 meters) above sea level, fire conditions can vary dramatically from one area to another. To solve that challenge, Ventura County has created and continues to expand its network of Remote Automated Weather Stations (RAWS).

The Problem: Prioritizing network expansion

Even as Ventura County deployed its first fixed RAWS sites, officials realized the county's network would eventually need to expand. To prioritize the expansion, officials needed to understand and quantify the amount of risk at various candidate sites. This posed a chicken-and-egg problem: How could they identify additional at-risk sites before deploying additional fixed RAWS? To solve this problem, they needed a single weather station that could be:

1. REPEATEDLY DEPLOYED ACROSS DIFFERENT SITES

They needed a portable unit that could easily be set up and taken down without committing to permanent installation.

2. AS ACCURATE AS A FIXED RAWS

The data collected by this unit would be just as critical as that collected by fixed RAWS. So, it would need to be just as accurate.

3. AS DURABLE AS A FIXED RAWS

This unit needed to withstand the same harsh conditions as a fixed RAWS, plus the stress of repeated deployments.

JUSTIFYING FUNDING FOR NETWORK EXPANSION

For many communities, building a network for fire weather monitoring is an extended process. They start with a few of their highest-priority monitoring sites. Then they expand as budgets allow and as additional needs are prioritized.

This approach can help communities get a fast start on building out their networks. But it can also stall the expansion process if they cannot demonstrate that additional sites are sufficiently at risk to merit additional budgetary allocations. So, these communities end up facing the same chicken-and-egg problem as Ventura County. How do you demonstrate risk when you don't already have the weather station that would collect the necessary data?



We purchased the QDRAWS just to have for project work like vegetation management. Then we also used it to identify good spots for permanent stations... It's just been great. It's easy to deploy. Easy to take down. It's a great product.

— Ken VanWig,
Fire Captain, Wildland/Aviation Division (Retired)
Ventura County Fire Department

The solution: QD RAWS

The solution for Ventura County ended up being AEM's Quick Deploy Remote Automated Weather Station (QD RAWS). THE QD RAWS is durable enough and simple enough to deploy that it can be repeatedly set up across various candidate sites, and county officials can trust the scientific-grade data it delivers to help them determine the level of risk at each site. Here's why:



FAST, EASY DEPLOYMENT

The QD RAWS is designed to be deployed by one person within 15 minutes without tools, a field PC, or technical training. Each unit is light and portable.



PRECISION SENSING

The QD RAWS utilizes the same sensors and telemetry as our fixed RAWS, which has set the standard for North American data accuracy.

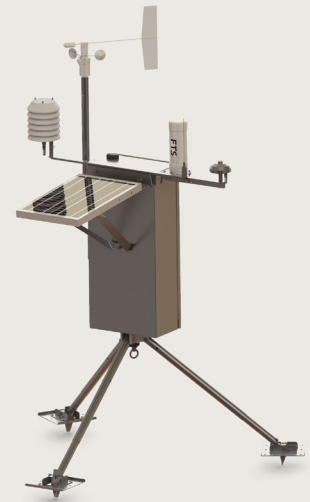


RUGGED CONSTRUCTION

The QD RAWS is designed to deliver a long service life even in the harshest conditions. It comes as a fully sealed, water-tight unit that can shed snow and withstand wind gusts up to 100 mph (160kph). It has no plastic parts.

Ventura County's expanding wildfire monitoring network

After about six years of service, Ventura County's QD RAWS is still running strong. Over the past three years, the county has been using it to collect vital information about a site in Simi Valley. Based on the data, county officials have concluded that there is sufficient wildfire risk at the site to recommend the installation of a fixed RAWS, which would free up the QD RAWS to begin evaluating the next potential at-risk site.



WHY AEM?

AEM's purpose is to empower communities and organizations to survive – and thrive – in the face of escalating environmental risks. In the case of Ventura County, that meant establishing and strategically expanding its wildfire weather monitoring network. So, they always know when and where conditions are most conducive to the spread of fire, and they can act accordingly.

When it comes to managing wildfire risk, clients like Ventura County tend to choose AEM for a wide variety of reasons. But three specific reasons consistently rise to the top:

RELIABLE SENSING

Research-grade sensors deliver data with scientific precision. Rugged construction means they will continue to do so year after year, even in the toughest of conditions.

CUSTOMIZABLE DESIGN

From stand-alone weather stations to expansive networks, from sirens and strobes to text messages and APIs, our monitoring and alerting solutions can be tailored to your specific needs.

ACTIONABLE INSIGHTS

Dashboard views and curated imagery from your at-risk sites deliver the situational awareness you need to make fast, smart decisions at every stage of the wildfire event lifecycle.