

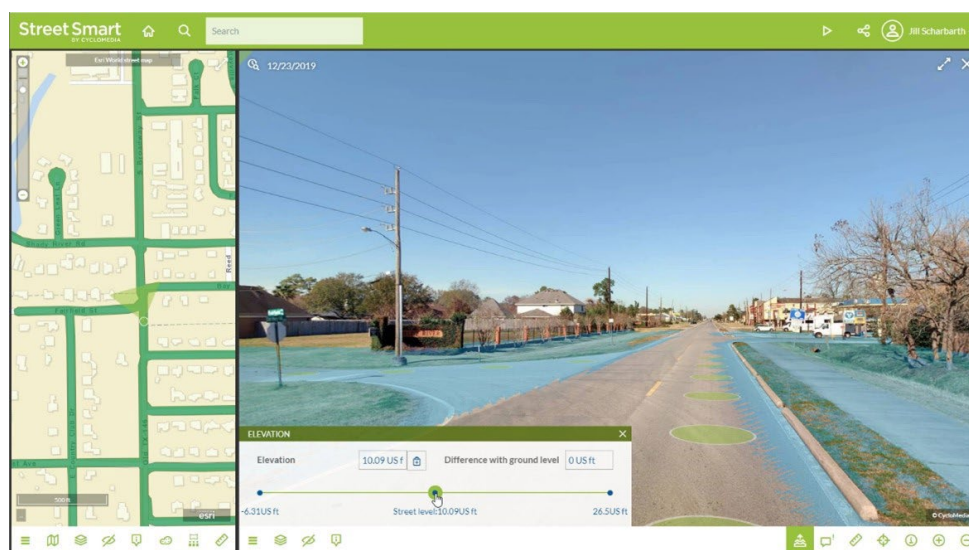
Improving Utility Risk Management in the 21st Century

The Future is Now the Present

Runaway wildfires over the past few years should logically result in every Utility ruthlessly reviewing their risk mitigation procedures for extensive upgrade or complete overhaul. Once-in-a-lifetime events are now once every few years and the old ways are no longer up to the reality of the new challenges. One of the largest issues facing Utilities today is the lack of complete, accurate, and up-to-date network asset data within their GIS. When disaster strikes, they need immediate access to the most current asset location and condition characteristics. Cyclomedia, through the power of ground-based imagery and LiDAR, is well positioned to arm you with information, analytics and insights that facilitate better risk management practices for day-to-day tasks, both in office and in field.

Not Our First Rodeo

Cyclomedia has extensive experience working with utility concerns and municipalities before, during, and after disasters. From updating and hardening overhead electric networks in hurricane-prone areas to assessing condition of pole infrastructure to handle ice storms, Cyclomedia imagery and data analytics has provided actionable insights that support data-driven decisions. For example, through the Elevation Tool in our Street Smart™ application, users can quickly and easily determine where water levels will rise and flow in a flooding event and identify which assets may be at risk. Cyclomedia has completed projects to determine the first-floor elevation of all residences and businesses throughout entire counties to predict areas at risk during a flood.



[Click to view our Street Smart Elevation Tool video.](#)

On March 3, 2020, one day after a tornado devastated Nashville, Tennessee, Cyclomedia mobilized its fleet to support and enhance disaster relief effort. In partnership with the Metropolitan Government of Nashville, Davidson County, and the State of Tennessee, we were able to quickly capture and deliver street-level imagery and LiDAR to assist with storm damage assessment.



[Click to view our Nashville Tornado Response video.](#)

Improving Fire Risk Mitigation

A key first step for Utilities to this end is to have available on demand a complete inventory of the precise locations and dimensions of vegetation encroachments within designated high risk fire threat zones.

With an extensive fleet of mobile recording systems, Cyclomedia can efficiently cover and capture thousands of miles along the distribution network. Within just weeks, not months, of data capture, your team can begin receiving high-resolution imagery, LiDAR data, and vegetation encroachment analytics –turnaround time that we have proven in the field time and time again. Cyclomedia’s automated vegetation encroachment and fuel load rating (FLR) analytics tools identify locations where vegetation is near overhead electric conductors and pole assets, providing an authoritative and accurate record for the pre-inspection phase.

Additionally, over time, frequent re-capture of network assets helps maintain a reliable and robust database that supports change detection and other important analysis and insights. Maintaining an accurate dataset of vegetation encroachments and fuel load will enable any Utility to become more proactive in mitigating the damage from, or even preventing, potential threats outright. With access to the precise locations and severity of overgrown vegetation you will be able to reduce operational costs, including optimizing the deployments and priorities of tree cutting crews.

The Cyclomedia **Solution**

Cyclomedia's 3D asset modeling and advanced analytics help reduce utility risks with key capabilities powered by innovative technologies:

- **Populate databases with accurate GIS data.** Document the location and condition of assets and infrastructure.
- **Regular data captures.** Collecting on a scheduled refresh allows utilities to stay up to date on their assets and have historical records to compare against.
- **Run change detection.** Use temporal data to understand the detailed changes to your assets throughout your Distribution network.
- **Bring the field to the office.** Reduce the safety risks associated with sending crews into the field. Know terrestrial conditions and reduce operations costs.