

# Case Study: County of Maui's Rapid Sewer System Assessment and Recovery with Dragonfly

## THE CHALLENGE

In August 2023, devastating wildfires swept across Maui, Hawaii, with Lahaina suffering catastrophic losses: more than 100 lives lost, 2,200 buildings destroyed, and over 5,000 residents displaced. The fires left the area unrecognizable and critically impacted public infrastructure, including the sanitary sewer collection system. The County of Maui faced urgent challenges:

- Severely limited staff and equipment to perform CCTV sewer inspections
- Time constraints due to concurrent recovery and coordination with FEMA and EPA
- Increased infiltration and reduced sewage flows disrupted wastewater treatment processes
- Critical need to identify pipes requiring immediate repair so the community could safely return

## OUR SOLUTION

To help restore Lahaina's sewer infrastructure, Jacobs deployed **Dragonfly**, an AI-powered condition assessment tool. Traditional CCTV methods would have taken 30% longer and required significantly more resources. Instead, Dragonfly enabled a **faster, more accurate, and collaborative solution**:

- Automated CCTV video review and defect identification by Dragonfly AI
- Remote coordination across five time zones and three continents
- Concurrent inspection and assessment allowed by weekly data batch processing
- Integrated visual dashboards (via Argon<sup>SM</sup>) for rapid defect prioritization and reporting

## TIMELINE OF KEY EVENTS



## RESULTS

Jacobs' innovative inspection process enabled Maui County to:

Inspect and assess

**90,000**

linear feet of  
pipeline in **30 days**

Deliver **bid-ready** design  
packages including GIS maps,  
drawings, and cost estimates

Inspect and assess

**512**

unique pipelines, flagging  
those needing urgent repair

Plan **immediate** and  
**long-term** infrastructure  
repairs with confidence

**2024**

Smart Water Project  
of the Year

**Distinction**



*"Dragonfly was key to quickly assessing the County's sanitary sewer collection system for emergency repairs after the wildfire event."*

**Deborah Aweau**

Capital Improvement Program Coordinator

*"Dragonfly saved us time by reviewing CCTV inspections and identifying pipes in poor condition so we could focus our time on fixing the issues instead of identifying them."*

**Juan Rivera**

Capital Improvement Program Manager

## WHY IT MATTERS

Maui's recovery required more than rebuilding—it demanded innovation, precision, and speed. By transforming traditional inspection processes with AI, Jacobs helped the County move from disaster response to recovery faster than thought possible. Dragonfly not only provided valuable data but also brought clarity—enabling decision-makers to act decisively, efficiently, and with confidence in supporting communities as they return safely to their homes.

## LEARN MORE

[dragonfly-info@jacobs.com](mailto:dragonfly-info@jacobs.com)

[www.jacobs.com/technology/dragonfly](http://www.jacobs.com/technology/dragonfly)