

DHS Wildland Urban Interface Fire Initiative

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DHS Interest in WUI Fire

In December of 2017, the Federal Emergency Management Agency (FEMA) Administrator requested the Department of Homeland Security Science and Technology (DHS S&T) research new and emerging technology that could be applied to wildland fire incident response, given the loss of life that occurred in California during the fall of 2017.

A workshop was hosted by DHS at the National Emergency Training Center (Emmitsburg MD) on April 18th 2019.



DHS Interest in WUI Fire

The project has identified three overarching conclusions:

- ✓ Time criticality of Wildland Urban Interface (WUI) fire incidents
- ✓ Available technology solutions exist
- ✓ Public education and preparedness measures are vital



Findings

1. Implement and scale the use of remote sensing assets to provide state and local stakeholders real-time, accurate, low-cost ignition detection and tracking information—especially fire perimeter using a mix of in situ, aerial, and space-based systems.
2. Improve the ability of available and adaptable public alert and warning technologies to deliver more targeted and effective message across the whole community, particularly to the Access and Functional Needs (AFN) population.
3. Improve use of key public and private social media and internet resources and capabilities to appropriately share data and adapt existing applications to enable more efficient and effective evacuation—e.g., expand and accelerate public-private partnerships through IPAWS to include WUI incident-related evacuations, warning, and alerting.



Findings

4. Support broader use of existing fire modeling and forecasting tools for pre-incident planning; while also advancing efforts to create high-confidence, timely WUI fire-specific models that can be used to inform response tactics during extreme conditions.
5. Increase infrastructure resilience, especially critical infrastructure lifelines and support functions for wildland fire response—e.g., improve the resilience, interoperability, and reliability of communications, power utilities, digital links, and data center infrastructure.
6. Integrate private, open, and crowdsourced data, resources, and capabilities to improve public safety situational awareness of WUI fire ignition detection and tracking.
7. Support wide-scale adoption of interoperable, low-cost blue-force tracking technologies that feed near real-time situational awareness across key stakeholders, missions, and operations.



Comments / Questions?