

StormCenter Communications



Wildland Fire Program



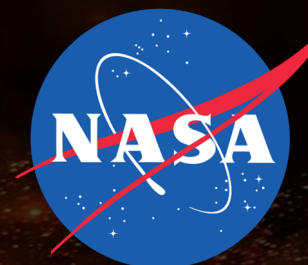
NASA Moraga-Orinda Fire District Project

Principle Investigator: Dave Jones

Phase I: Address 5 Key Pillars (Study)

Phase II: Execution of Findings

SBIR Technology Implementation



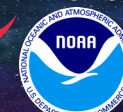
Partner

Tactical Fire Remote Sensing Advisory Committee
November 29-30, 2022 Virtual Meeting



FIRESENSE COLLABORATION ENVIRONMENT
MORAGA-ORINDA FIRE DISTRICT - MOFD

INFORMATION SOURCES





Wildland Fire Program

5 Key Pillars

- Establish an instance of GeoCollaborate to build capacity and engage users
- Local outreach and capacity building within Moraga-Orinda Fire District;
- Assess data & needs within the Moraga-Orinda Fire District;
- Determine what needs to be done to increase local capacity in wildfire community
- Establish an ESIP Wildfire Cluster



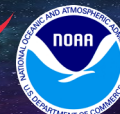
Establish ESIP Wildfire Cluster

Determine How to Build Local Capacity

Assess Data Needs within District

Local Outreach & Capacity Building

GeoCollaborate Real-Time Cross-Platform Sharing





Wildland Fire Program

ESIP Wildfire Cluster

Any community working on proactive wildfire management approaches

Any agency or org that has an interest in proactive wildfire management

Monthly meetings (virtual)

Applying geospatial tech, AI, ML for rapid testing & dissemination

Establish ESIP Wildfire Cluster

ESIP Wildfire Cluster

- Napkin Drawing



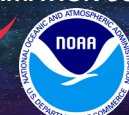
Wildfire Cluster

What part of the fire should I put out? What part to leave burn???

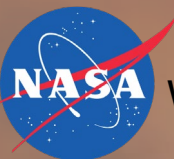


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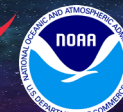
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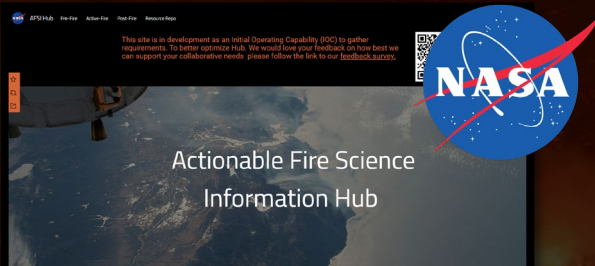


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Determine How to Build Local Capacity



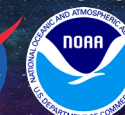
Equal Access to...
And sharing of...
Trusted Data



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Local Outreach & Capacity Building

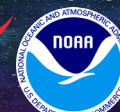
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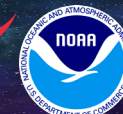
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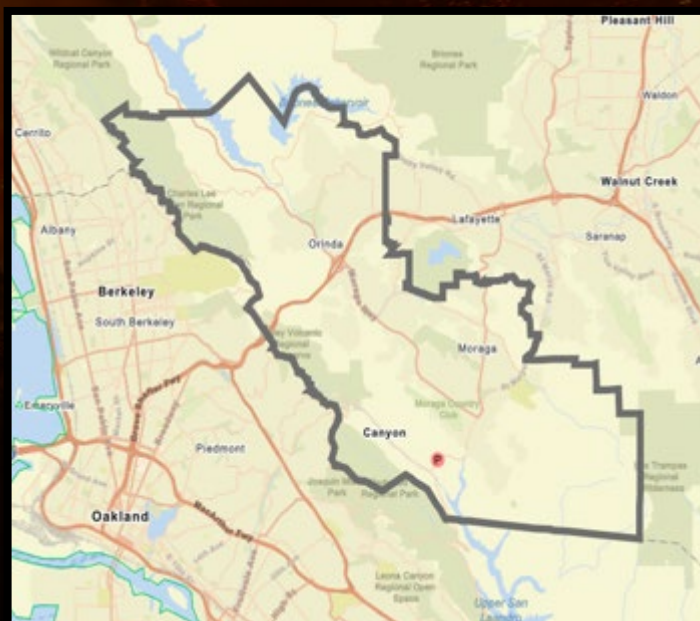


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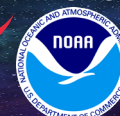
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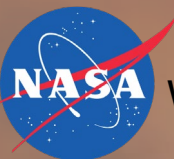
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Assess Data Needs within District



- What data is being used currently?
- What data is not available to all?
- What data would be useful?
- What data challenges exist & why?
 - Understanding
 - Timeliness / Latency





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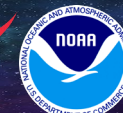
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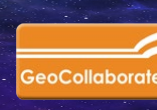
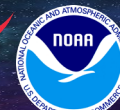
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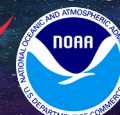
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Local Outreach & Capacity Building

- How can we improve outreach and user engagement?
- How can we best provide MOFD with the right data at the right time across the same platform collaboratively?
- Can we engage the community through existing trusted channels?
- Can the community access and trust the data?



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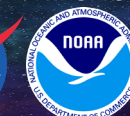
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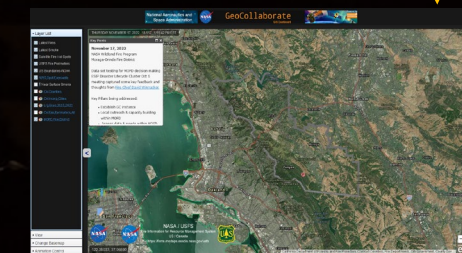
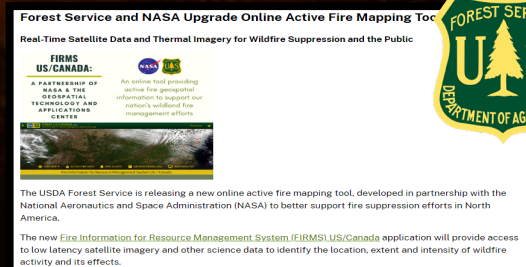
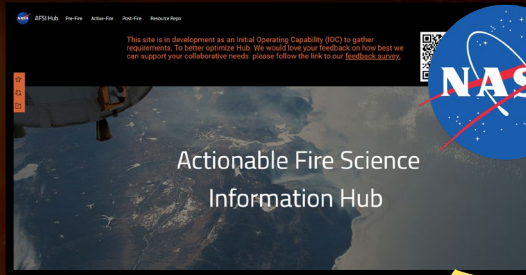
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Trusted Sources



- Cross-Agency Collaboration
- LIVE collaboration sessions
- Data updating in Real-Time
- Human-Led Dashboards
- Prioritizing Trusted Data
- Building Community Capacity

Many Websites & Data Portals Out There

Hubs, Portals & Data Sources

The collage displays several prominent web portals and data sources:

- GOES Image Viewer:** A NASA portal for viewing GOES satellite imagery, showing a map of North America and a list of available channels.
- National Weather Service:** A portal for weather forecasts, observations, and data, featuring a map of the United States and a list of available data.
- OWP (Ocean Weather Prediction):** A portal for ocean weather prediction, showing a map of the United States and a list of available data.
- CDC (Centers for Disease Control and Prevention):** A portal for disease prevention and control, featuring a map of the United States and a list of available data.
- STAR JPSS (STAR Joint Polar Satellite System):** A portal for satellite data, showing a map of the United States and a list of available data.
- BTAC (Biosphere Technology and Applications Center):** A portal for biosphere technology and applications, showing a map of the United States and a list of available data.
- Earthquakes:** A portal for earthquake data, showing a map of the United States and a list of available data.

Many browser windows look like this

fsapps.nwcg.gov/afm/gisdata.php

VIIRS Band	Wavelength (nm)	Spatial Resolution (km)
11	0.60 - 0.68	0.40 x 0.8
13	1.58 - 1.64	0.40 x 0.8
14	3.55 - 3.93	0.40 x 0.8

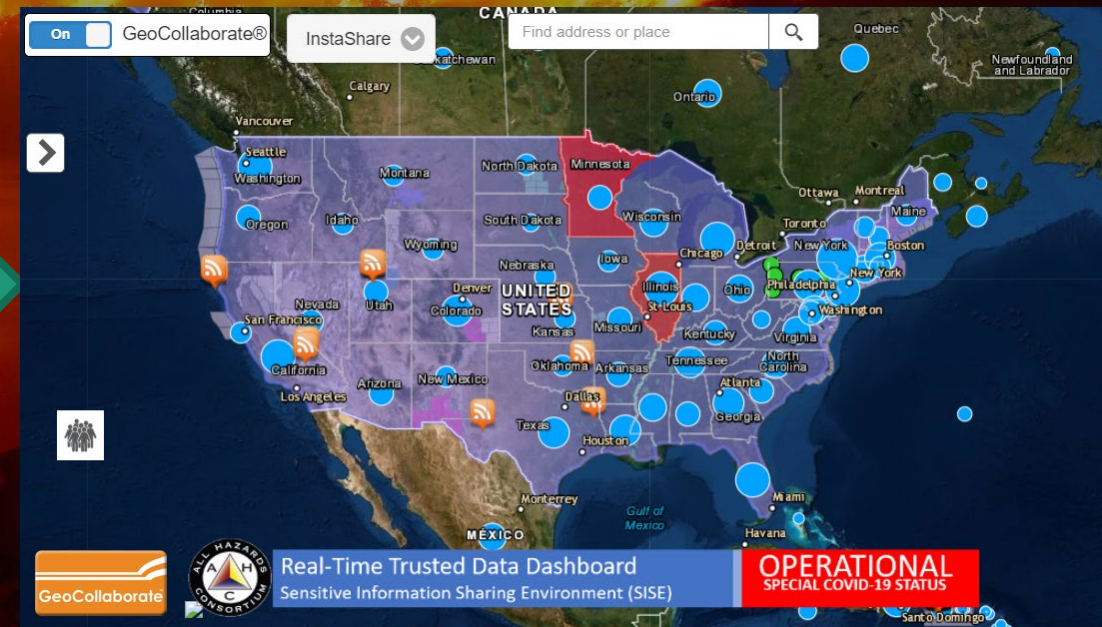
Products and data:

- CLASS
- CLASS FTP (last 90 days of available data - 775 MB)
- Imagery Team Site
- EDR Long Term Monitoring
- Imagery (CSV)

Graphical Tropical Weather Outlooks | Active Storms | Marine Forecasts

GeoCollaborate Unifies Disparate Trusted Sources

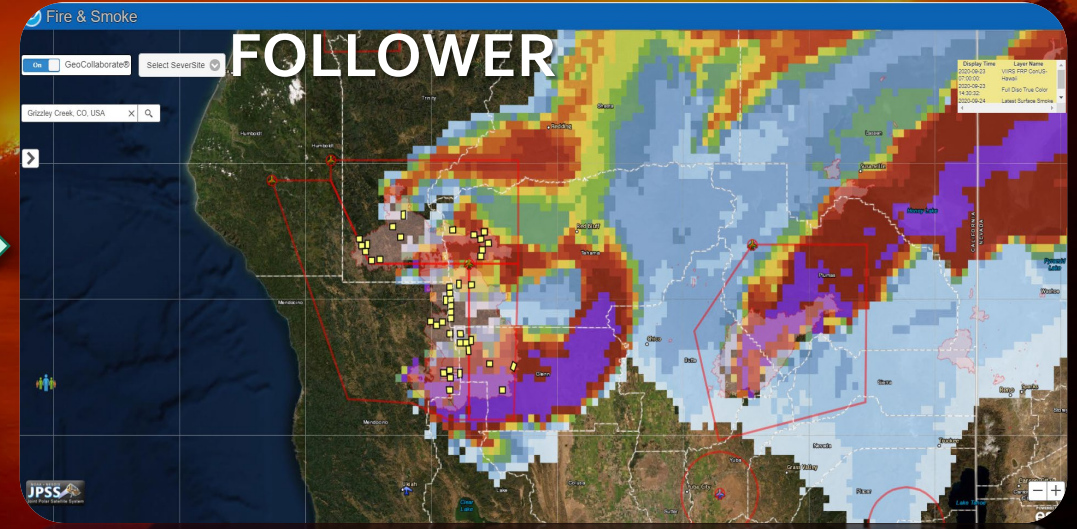
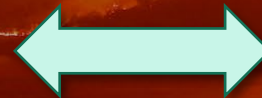
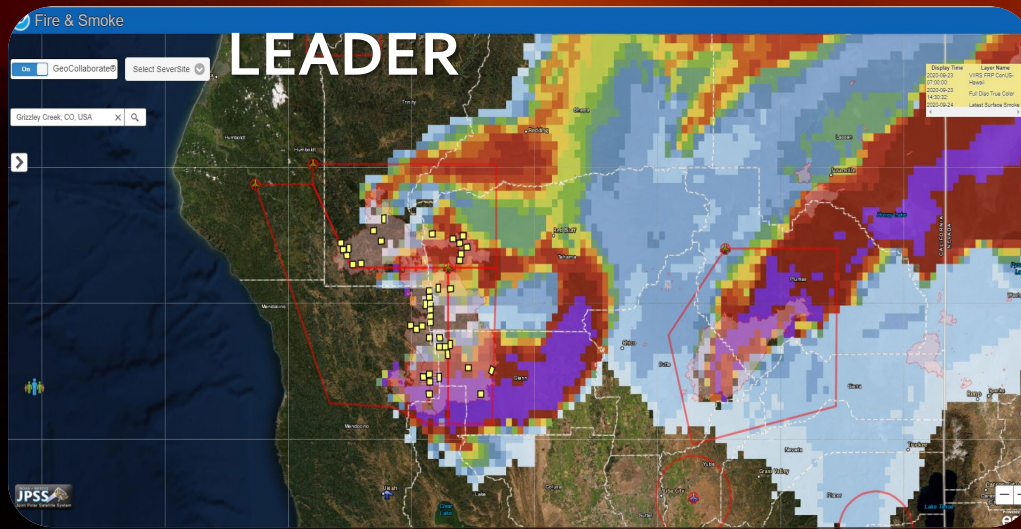
In a collaborative environment



Deliver Trusted Data from disparate sources, in real-time, onto any map

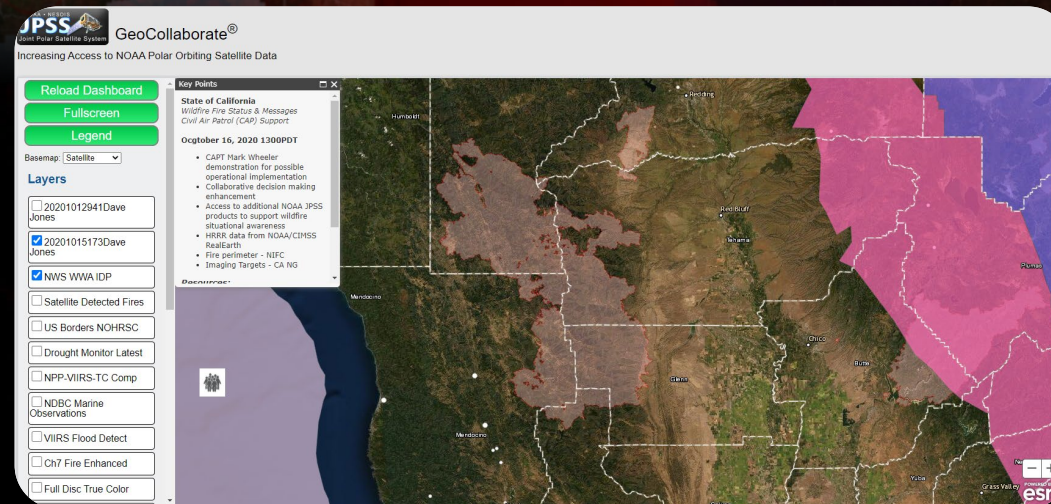
GeoCollaborate Unifies Disparate Trusted Sources

In a collaborative environment



COLLABORATIVE DASHBOARD

Geographic location
(Area of Interest & Data Layers)
can be selected by
individual user

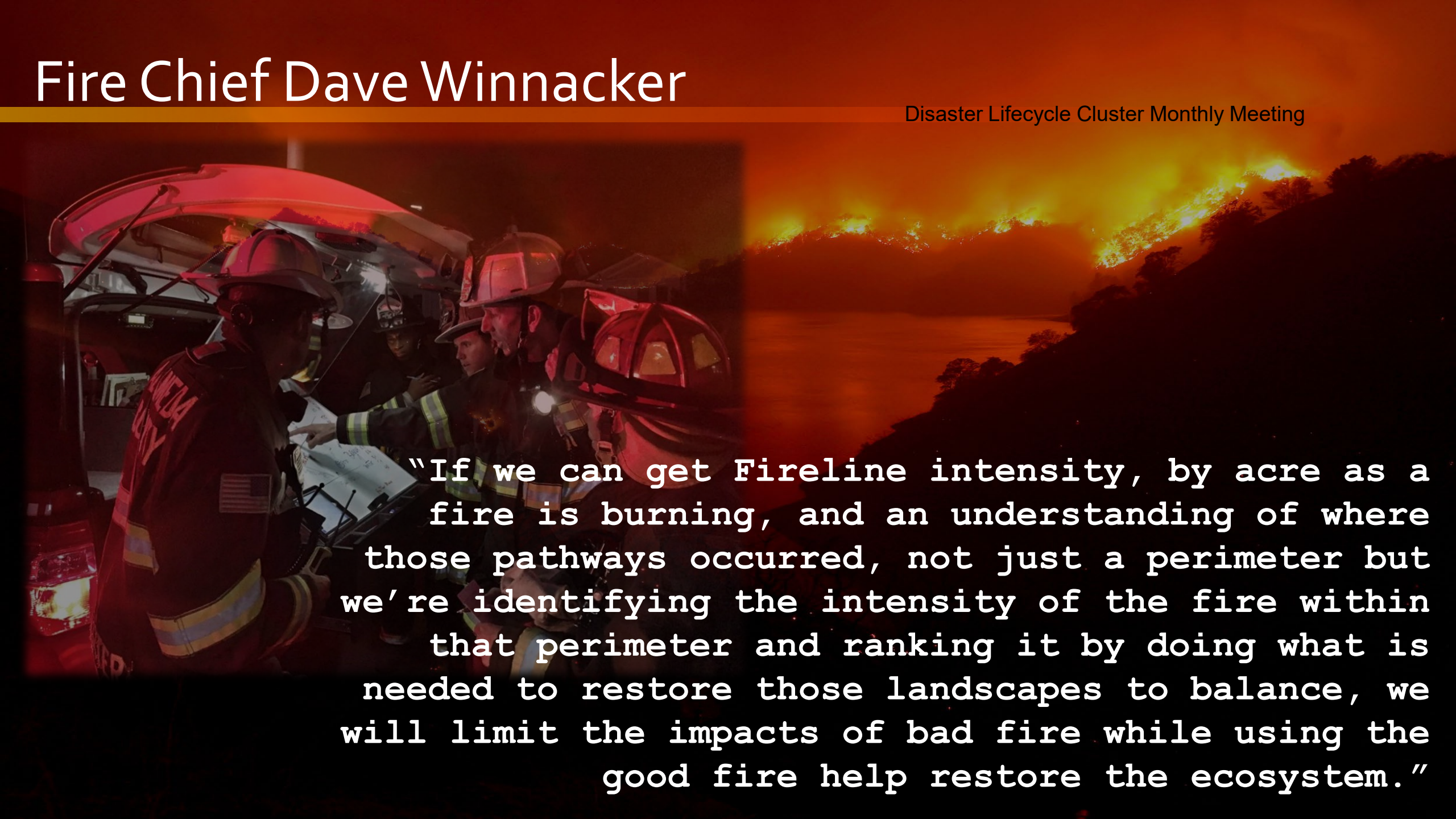


OGC compliant data formats for rapid interoperability

*Satellite, drones, models, observations, reports, pictures
Output from AI, ML – data driven decision making

Fire Chief Dave Winnacker

Disaster Lifecycle Cluster Monthly Meeting



"If we can get Fireline intensity, by acre as a fire is burning, and an understanding of where those pathways occurred, not just a perimeter but we're identifying the intensity of the fire within that perimeter and ranking it by doing what is needed to restore those landscapes to balance, we will limit the impacts of bad fire while using the good fire help restore the ecosystem."

Thank you!

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Contracts Manager:

Nancy Campbell

nancy@stormcenter.com

410-203-1316 (o)



Thank you!

LIVE Brief Demonstration of GeoCollaborate During the Break

