FIRECARES

DO YOU KNOW YOUR SAFE GRADE?

FIRECARES

Community Assessment Risk/Response Evaluation System: **FireCARES**

March 11, 2016

Fire Department Core Values

Protect lives, property, and the environment through **preparedness, prevention, public education,** and emergency **response** with an emphasis on quality services, efficiency, effectiveness, and safety.

Challenges Are Driving Dangerous Decisions

- Forcing decisions to cut fire department resources faster than we can evaluate their impact

- Cuts can leave a community without sufficient resources to respond safely and effectively

Matching Resources to Risk

If fire department resources (both mobile and personnel) are deployed to match the risk levels inherent to hazards in the community, it has been scientifically demonstrated that the community will be far less vulnerable to negative outcomes in…

- firefighter injury and death
- civilian injury and death
- property loss

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Matching Resources to Risk

- Following a community hazard/risk assessment, Leaders must prepare a plan for **timely** and **sufficient coverage** of all hazards and the adverse risk events that occur….

→***Standard of Response Coverage***.

(Standards of Cover)

Fire Department Performance

- **Resource Availability/Reliability** is the degree to which the resources are ready and available to respond.

- **Department Capability** is the ability of the resources deployed to manage an incident.

- **Operational Effectiveness** is the product of availability and capability. It is the outcome achieved by the deployed resources or a **measure** of the ability to **match resources** deployed to the risk level to which they are responding.

Fire Service Leaders Faced with Decisions

- When evaluating current capability or measuring impact of a **change** in the level of resources deployed, department leaders (and community officials) must decide:
  1. What resources to commit to **risk management** (prevention/pre-planning/preparation);
  2. What resources to commit to **response/mitigation**
  3. The **acceptable level of risk**.

Fire Service Leaders Faced with Decisions

- Decisions must be based on **understanding** of
  - relationship between community **hazards** and associated **risk**,
  - basic **emergency response infrastructure**, including fire department response capability
  - **outcomes** of emergency incidents

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FireCARES =

- Community Assessment/ Response Evaluation System
- Same Study Team as NIST Studies
- DHS/AFG Grant
- DOD – ROGUE project

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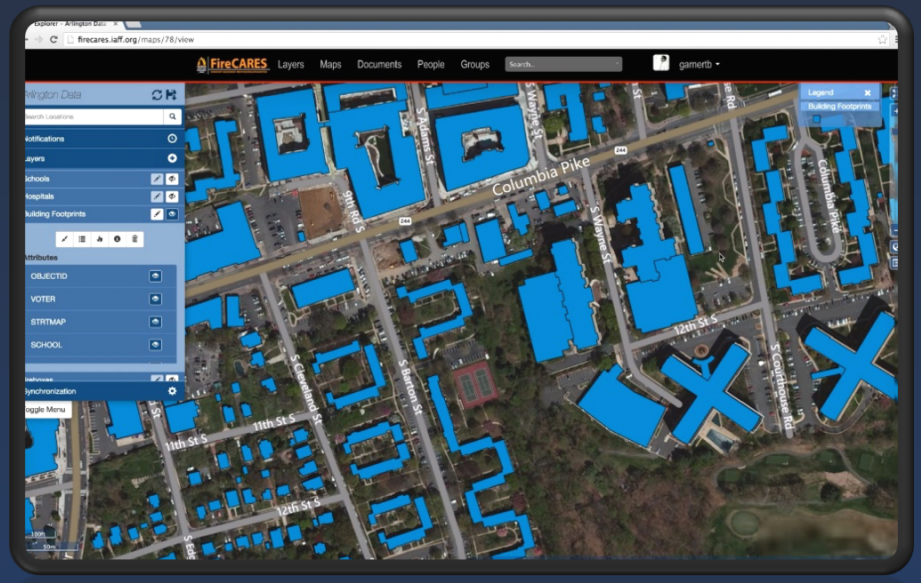
- GIS-based tool is being constructed of multiple layers of **“Big Data”**
  - Real estate data
  - Public health data
  - Census data
  - Building foot prints
  - HAZUS data



– And multiple other GIS layers including 11+ years of structure fire data

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- **High-Hazard Occupancies** – High-rise buildings, hospitals, schools, nursing homes, explosive plants, refineries, public assembly structures, and other high life hazard or large fire potential occupancies.

- **Medium-Hazard Occupancies** – Apartments, offices, mercantile and industrial occupancies that may require extensive use of fire fighting forces.

- **Low-Hazard Occupancies** – One-, two- or three-family dwellings and scattered small business and industrial occupancies.

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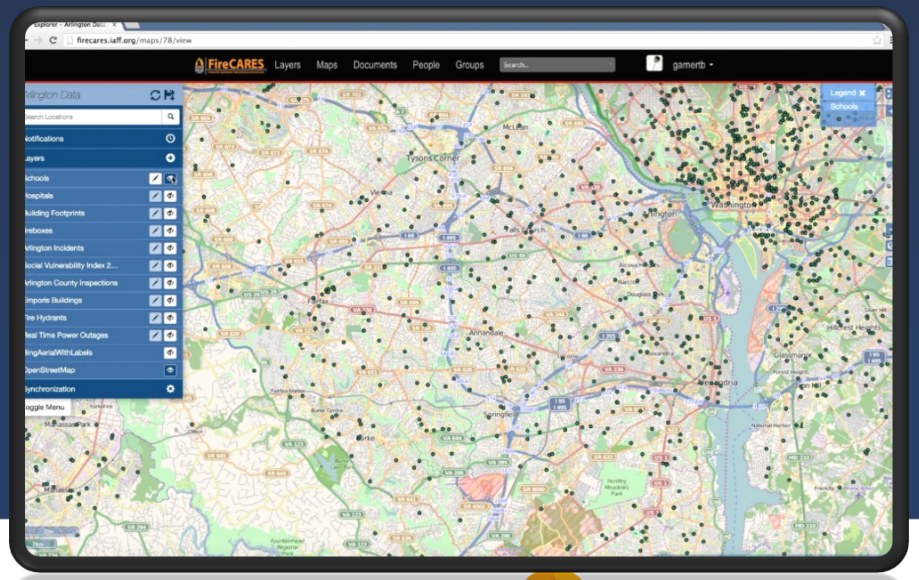
- Data layers are compiled to build the 'risk profile' or the community risk assessment for Fire departments
- Includes national fire station layer
- Other local response related data can be added to the system
  - hydrant locations
  - inspection reports



Connections: Bringing It All Together

NFORS

National Fire Operations Reporting System

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www.firecares.org