Enhancing Executive Situation Awareness with GIS

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Cal OES GIS Division

Tasked with providing GIS support to incident response & recovery operations and daily operations of all Cal OES business areas.

- Develop map, app, and mobile products to enhance situation awareness and support decision-making during emergency management operations.
- Provide GIS and data analysis expertise.
- Develop map & app products to support planning, mitigation, response, and recovery daily operations.
ArcGIS Online - AGOL

- Online mapping application
- Interactive map products
  - Web Viewer
  - Web Journal
  - Situation Awareness Viewer
  - Dashboard
- Daily Operations products
  - Access and Functional Needs
  - Law Enforcement
  - Executive
- Situational Awareness products
  - Incident Impact maps
  - Incident SA Maps
- Mobile Applications
  - Workforce
  - Survey 123
Executive Situation Awareness

- Traditionally reports have been in the form of PDFs, emails, slide presentations.
- Information is static, can get lost.
- No visual context to information.

- AGOL gives information visual context.
- Live data feeds, no static information.
- Dynamic and interactive.
Traditional Reporting

- Information received in the form of:
  - Emails
  - PDFs
  - Slide Presentations
  - Word of Mouth

- Information is static:
  - Out of date
  - Report can be from previous operational period

- Information can get lost, not read, or not relayed to the proper personnel
Digital Reporting

• Static to Interactive
  ➢ Live feeds
    ➢ i.e. NOAA Radar
  ➢ Real-time updates
    ➢ i.e. WebEOC
  ➢ Interactive layers

• Utilize reports from vetted sources to populate data layers
  ➢ Add information as it comes in, do not have to rely on waiting for next op period report

• Creates a standardized common information picture
Digital Information Products
Situation Awareness Viewer

- **Fire Points**
  - New Active
  - Active Fire
  - Recently Contained
  - Inactive Fire

- **Controlled Fire Line**
  - Current

- **Fire Perimeters**
  - New Active
  - Active Fire

- **Soberanes Fire Progression (9/19/2016)**
  - 2016-07-25
  - 2016-07-31
  - 2016-08-08
  - 2016-08-17
  - 2016-08-23
  - 2016-08-31
  - 2016-09-09
  - 2016-09-12
  - 2016-09-14
  - 2016-09-19

- **MODIS Fire Detection**
  - Active Burning
  - Last 12 hrs
  - Last 24 hrs
Winter Storms Situation Awareness

Statewide Updates 4/13/2017 at 1000 hours
Sources: CA State Warning Center Daily Situation Report

Winter Storm Summary

2017 Statewide February Winter Storms Activations
- The State Operations Center (SOC) is at Level 1 activation.

Flood Outlook

Statewide Updates 4/13/2017 at 1000 hours
Sources: CA State Warning Center Daily Situation Report

Graphical Hazards Viewer

Counties with rivers forecast to meet or exceed Flood stage:
Operations Dashboard