

## County of San Diego: 2018 CSAC Challenge Awards Executive Summary

### Know Your Hazards - A Public Map Tool

**OVERVIEW:** Know Your Hazards is an interactive, online tool that allows users to explore and prepare for hazards at their home, work or school.

**CHALLENGE:** The County of San Diego Office of Emergency Services' (OES) website, [ReadySanDiego.org](http://ReadySanDiego.org), offers valuable disaster preparedness information organized by hazard and community. Before the new tool, users could not search specific wildfire, earthquake, flooding, and tsunami hazard levels for their community. To fill the gap, OES created the tool using preparedness information available on [ReadySanDiego.org](http://ReadySanDiego.org) as a foundation, but in a single map viewer.

**INNOVATIVE SOLUTION:** To provide interactive hazard information to the public, OES developed Know Your Hazards ([ReadySanDiego.org/Know-Your-Hazards](http://ReadySanDiego.org/Know-Your-Hazards)). The overarching goal is to inform the public on what to do before and during a disaster, and the likelihood of hazards at customized locations. To accomplish this, OES created a web-based tool with an easy-to-use map interface that allows the user to perform an address search and toggle map layers on and off for a quick visual display. The tool provides hazard and preparedness information on wildfires, earthquakes, flooding and tsunamis in both English and Spanish.

The OES team worked with multiple agencies to gather and integrate authoritative datasets, including CAL FIRE Fire and Resource Assessment Program (FRAP) data on Fire Hazard Severity Zones (FHSZ), United States Geological Survey (USGS)/California Geological Survey (CGS) Earthquake Shaking Potential for California 2016 and Major Faults 2014 data, Federal Emergency Management Agency (FEMA) 100-year Floodplain information, and CGS Tsunami Inundation Zone Maps.

Know Your Hazards utilizes the Esri ArcGIS Online cloud-based mapping platform, which is secure and scalable. After investigating the capabilities of the “mapping applications” and “widgets” available through ArcGIS Online, the team chose to use the customizable Web AppBuilder mapping application. Significant testing and development helped to optimize the performance and reliability of the map tool. Esri Technical Support assisted in determining the configuration that would display address search results most consistently across various internet browsers.

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County Leadership and CAL FIRE launched Know Your Hazards to the public at a press conference. The user interface is intuitive and does not require training. Know Your Hazards also offers a streamlined mobile view and functionality for anyone accessing the internet.

**ORIGINALITY:** Know Your Hazards encourages disaster preparedness through a fully interactive and modern mapping interface. By delivering access to preparedness information via the map tool, users quickly obtain curated results. With the growing accessibility of data, the demand for simple, streamlined, and well-developed solutions to accomplish what were once more challenging tasks is increasing. Know Your Hazards is a useful model of how this can be done.

**COST EFFECTIVENESS:** The OES team developed Know Your Hazards as an ancillary assignment. Staff worked on all phases of the project, including developing the concept, conducting research, building prototypes, gathering datasets, testing the tool, and troubleshooting issues in the ArcGIS Online platform. OES took advantage of the County's Enterprise License Agreement with Esri, which provides an Esri ArcGIS Online Organizational Account for publishing and hosting GIS services and mapping applications.

**RESULTS:** Know Your Hazards has drawn approximately 14,800 views and been positively received by the public and local media. Last year, the development team participated in a National Association of Counties (NACo) webinar, in which they provided insights and best practices for utilizing Esri tools to develop a public mapping application.

### **PROJECT/PROGRAM CONTACT:**

Michael Robles, GIS Analyst  
County of San Diego, Office of Emergency Services  
5580 Overland Avenue, Suite 100  
San Diego, CA 92123  
858-715-2340  
[Michael.robles@sdcounty.ca.gov](mailto:Michael.robles@sdcounty.ca.gov)