Building

Community Resilience

The Role of Non-governmental Organizations in Making Places
More Resilient



Brent Woodworth: President and CEO – LA Emergency Preparedness Foundation

Community Resilience:

The ability to withstand shocks and stresses And bounce back stronger

 Encompasses a wide variety of areas, from Environmental resilience to social resilience

Factors

- Population Growth
- Infrastructure
- Communications
- Economic
- Civic Cohesion
- Natural and Man-Made Disasters
- Cross-Sector and Cross-City Collaboration



"I Lost Everything"

EARTHQUAKE Turkey - August, 1999



"The sky turned to night"



Guaga Pichincha Volcano

VOLCANIC ERUPTION

Ecuador - October 1999



India Earthquake

Magnitude 7.9 Earthquake

Affected Population: 16,972,606

Human Fatalities: 30,000 +

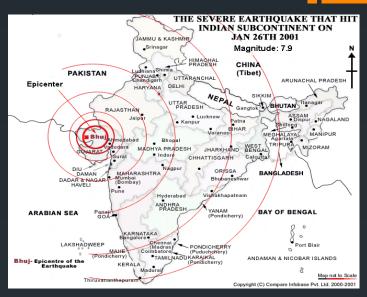
Injured Persons: 68,478

Destroyed Houses: 228,906

Damaged Buildings 397,538



Bhuj, India January, 2001





India: Gujarat Earthquake Relief

Receipt, Packing and Distribution of Supplies



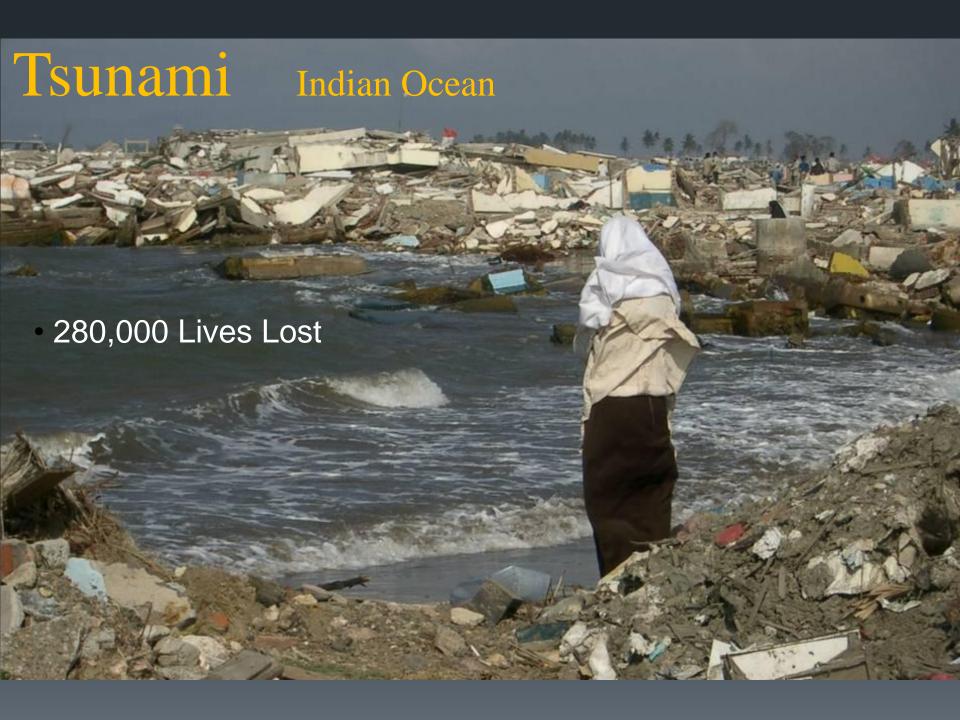




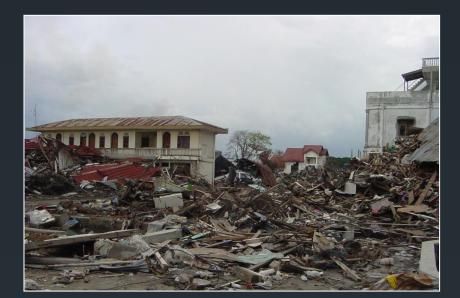


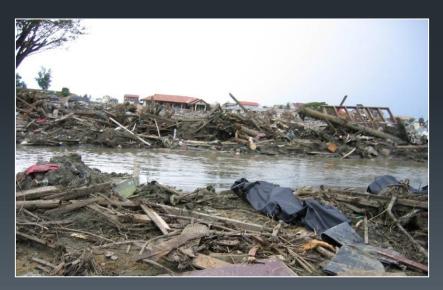






Tsunami Banda Aceh Indonesia





Debris and Bodies





Pakistan Earthquake

- Balakot / 60% loss of life

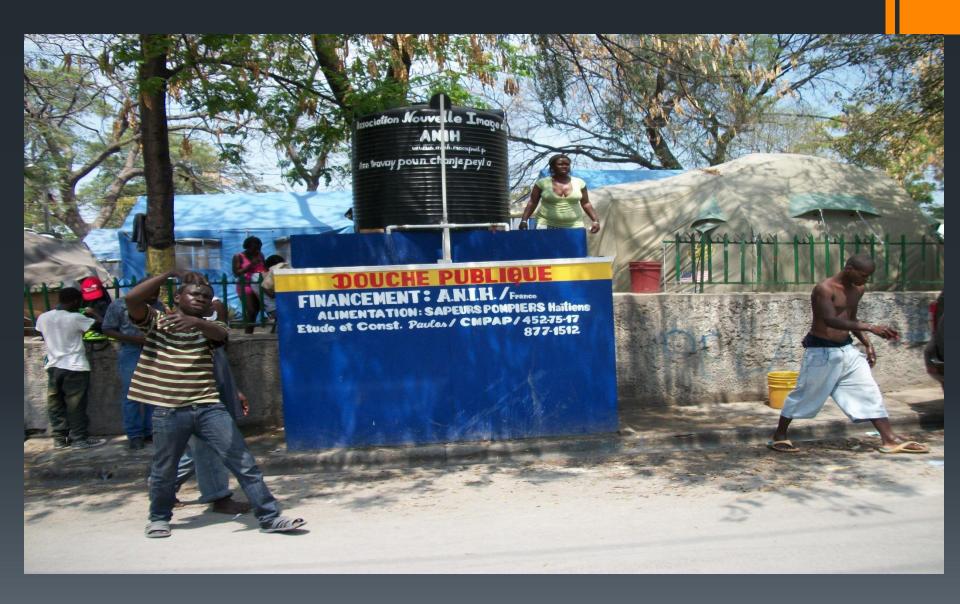


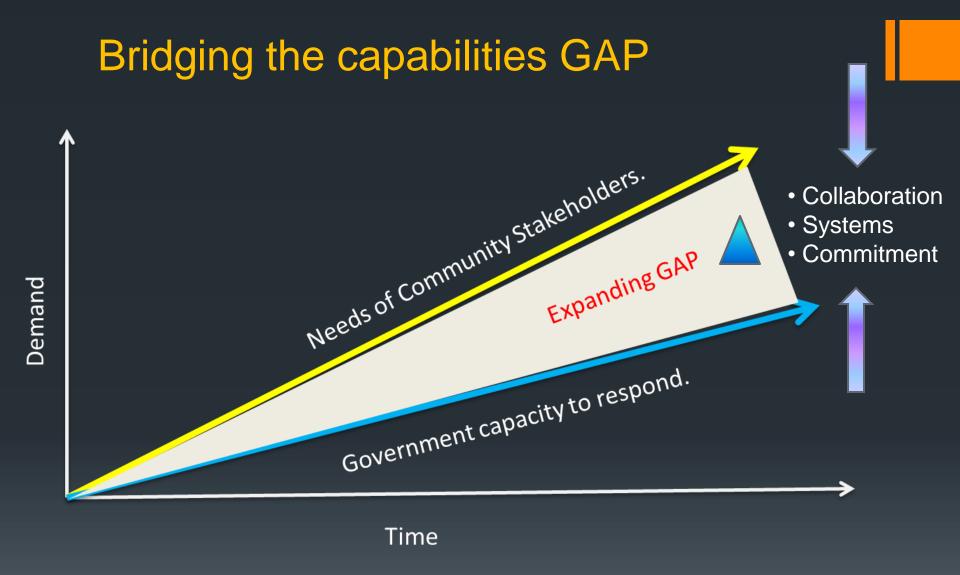


Minami Sanriku, Japan: October, 2011



Haiti: 2010





Community Resilience:

What Does It Take?

- Innovation
- Collaboration
- Sustainable
- Measurable
- Repeatable



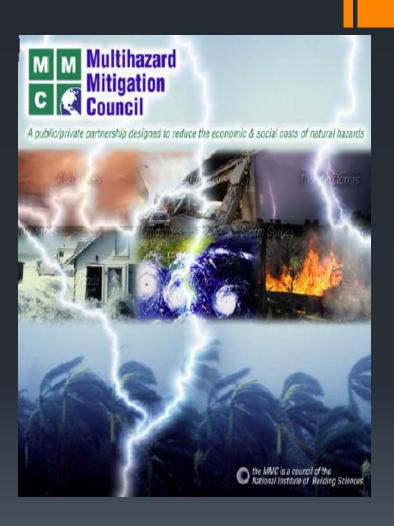
Why Invest?

Natural Hazard Mitigation Saves

- An independent study to assess the future savings from Mitigation activities.
- Developed in cooperation with OMB & CRO.
- Presented to US Congress
- International Industry Benchmark

Benefits of Investing In Pre-Disaster Mitigation

4:1 Benefit / Cost



"An Ounce of Prevention is Worth a Pound of Cure"

Community Resilience Innovation Challenge

- Nationwide Program
- Awards up to \$35,000
- No financial match required
- Simplified application process



Structured and Managed By:





Community Resilience Innovation
Challenge





2012 Community Resilience Innovation Challenge

NEW OPPORTUNITY!



Objectives

 Create a culture of community resilience by identifying needs, mobilizing partners, and creating innovative, motivating, and effective solutions that can be grown, sustained, and replicated.

2012 Community Challenge Funding

- Awards will range up to a maximum of \$35,000.
- No financial match is required.
- Award funds will be paid directly to the award winning agency, institution, business entity, association, organization, or group.
- Supports both existing initiatives and new collaborations.

Higible Applicants

- Agencies, institutions, business entities, associations, organizations or groups operating within the local jurisdiction where the project will be conducted.
- \cdot . Only projects within the USA and USA territories will be considered.
- · All projects must start within 30 days of receiving award funds
- Award funds must be fully utilized within 1 year of receipt.

Application Deadline: Postmarked (TBD) emailed by 11:59 pm PDT.

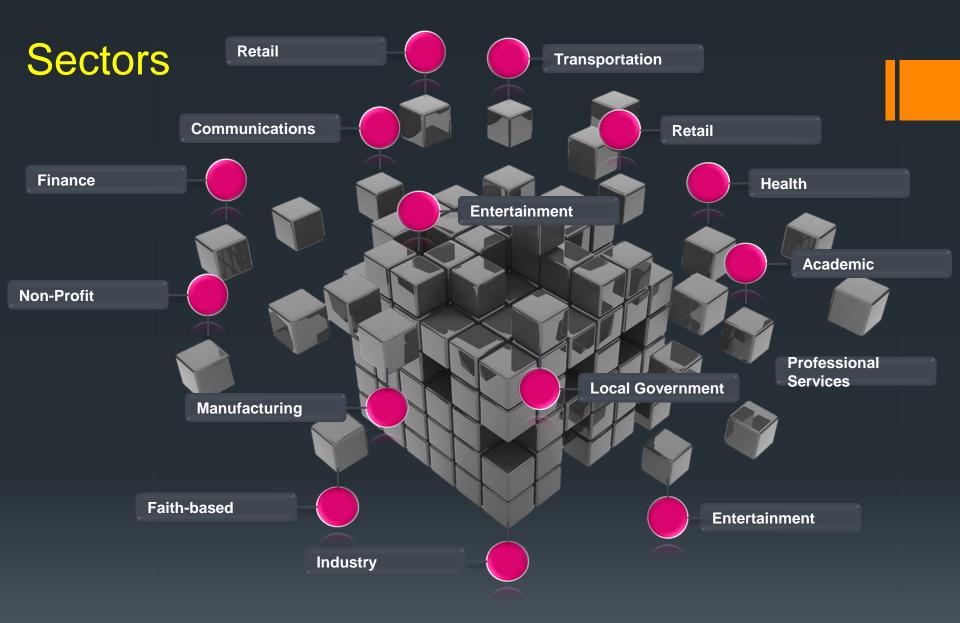
Evaluation Criteria include, but are not limited to, the following factors: Innovation * Collaboration * Project Sustainability * Replication * Benefits

For more information and to download the application form, visit: www.ChallengeAwards.org

Program Managed By



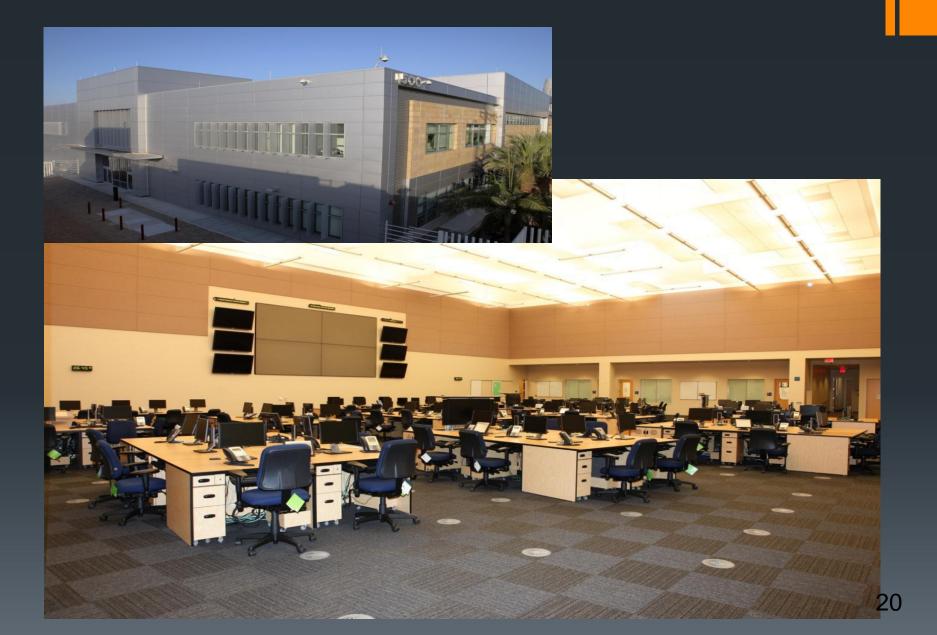




Community Stakeholder Sectors

- Critical Infrastructure Utilities, Voice, Data, Highways, Services
- Healthcare Hospitals, Pharmacies, Clinics
- Banking Finance, Insurance, Legal
- Entertainment Arts, Media, Sports, Recreation
- Manufacturing Heavy Industry, Chemicals, Process, Oil and Gas
- Construction Development, Facility Management, Real Estate,
- Hospitality Food and Beverage, Lodging, Tourism
- Information Technology Computers, Servers, Software
- Transportation Automotive, Postal / Shipping, Supply chain, Warehousing
- Associations Professional Services, Consulting
- Retail Wholesale, Grocery, Consumer Goods and Services
- Faith Based Houses of Worship, Organizations
- Academic Universities, Colleges, Schools
- Non-profits NGO's, Foundations
- Government Local, State, Federal

LA Emergency Management Division EOC and BOC



3 Phase Community Resilience Continuum:



1) Build Community Stakeholder Collaboration

- 15 Sectors: Business, Government, Academic, Faith-Based
- Participation, Collaboration, Trust, Commitment



2) High Value Tools: Community Stakeholder Network (CSN)

- Situational Awareness & Decision Support
- Information Sharing Utilities, Business, Government, Community
- Dynamic Mapping & Modeling
- Business Intelligence
- "Information is as important as Food, Water, or Shelter in a Crisis"



3) Leadership and Coordination

- Rapid, and Collaborative event response
- Government and Community Stakeholder Sector protocols
- Identify, manage and address immediate and emerging needs
- Creative and High-impact Contributions
- Provide sage advice, guidance, and coordination

Building Community Resilience

Top Down Approach / Bottom Up Approach

How to Make it Work:

Collaboration cannot be mandated. Success requires:

- Trusted, and committed leadership across sectors
- The determination to overcome roadblocks
- The ability to listen, interface, communicate and work with community stakeholders (Public and Private)
- The ability to make the trade-off's necessary to make the best interests of community stakeholders the #1 priority
- Identify and reduce redundant efforts break down silos
- Share information



Top Down



Business Intelligence



 Wisdom is a collected, connected understanding built from knowledge—that gives insight into the future

 Knowledge applies human skill, experience, and perspective to make the information useful

Information

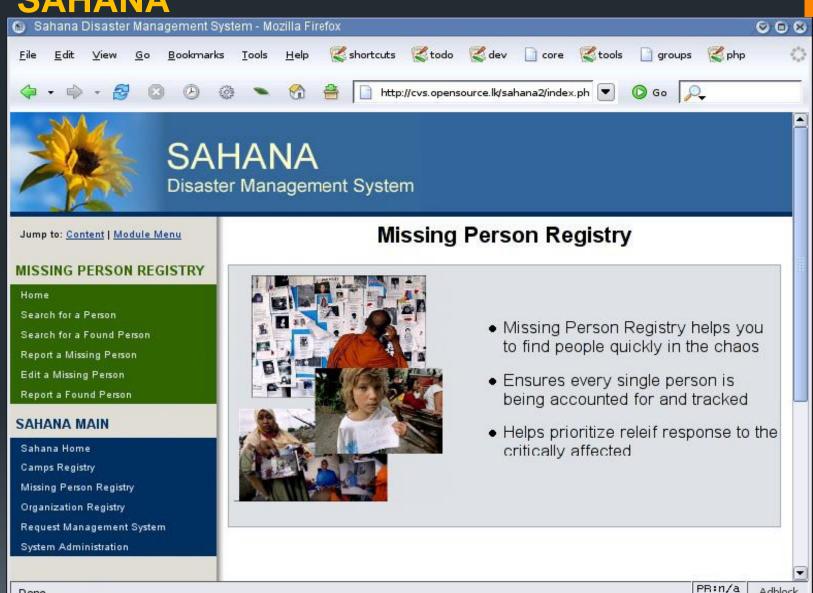
 Information structures, patterns, and connects data

Data

• **Data** is something that is gathered

SAHANA

Done



Adblock

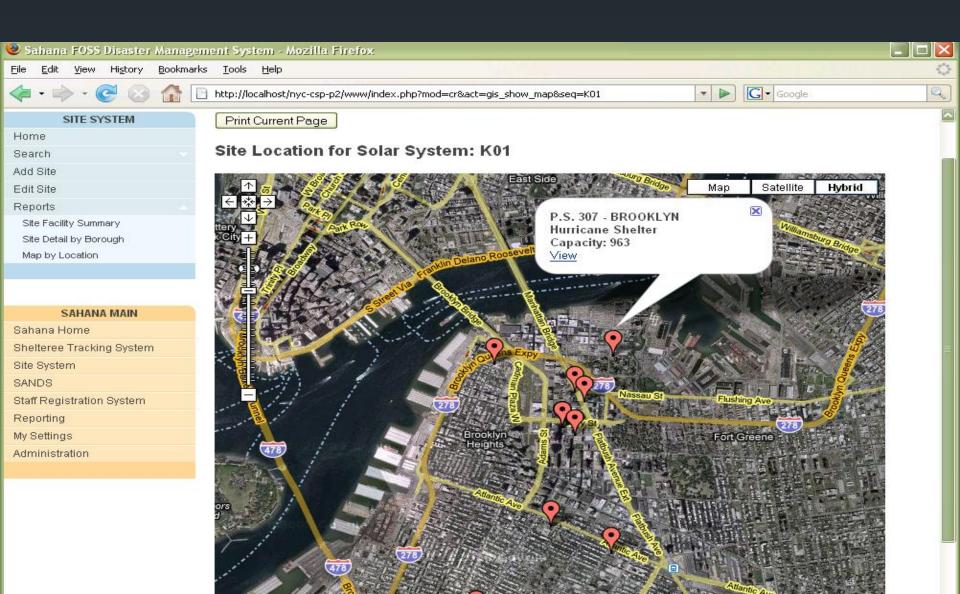
Sahana Deployments

- Asian Tsunami in Sri Lanka 2005
- Kashmir Earthquake in Pakistan 2005
- Landslide disaster in Philippines 2005
- Sarvodaya and Terre des Hommes (NGOs), Sri Lanka 2005
- Yogjakarta Earthquake, Indonesia 2006
- Cyclone Sidr in Bangladesh 2007
- Ica Earthquake, Peru 2007
- Coastal Storm Plan in New York City 2007
- Ica Earthquake, Peru 2007
- Chendu-Sitzuan Province Earthquake, China 2008
- Flooding in Bihar, India 2008
- Cyclone Nargis, Myanmar 2008
- National Disaster Management Center & Ministry of Resettlement & Disaster Relief Services, Sri Lanka – 2009
- City of Tampa Florida, USA 2009

Sahana Deployments

- Port-a- Prince Earthquake, Haiti 2010
- WFP and WHO (UN) 2010
- Earthquake, Chile 2010
- Floods, Pakistan 2010
- Floods, Venezuela 2010
- Hurricane Karl, Mexico 2010
- Christchurch Earthquake, New Zealand 2011
- Floods, Colombia 2011
- Hurricane Irene, USA 2011
- Joplin Tornado, USA 2011
- Tohoku Earthquake and Tsunami, Japan 2011
- Hurricane Sandy, USA 2012
- Wildfires, Chile 2012

NYC OEM - Site Management



The Community Stakeholder Network (CSN)

A system to support enhanced Communication, Collaboration, and Community Resilience.

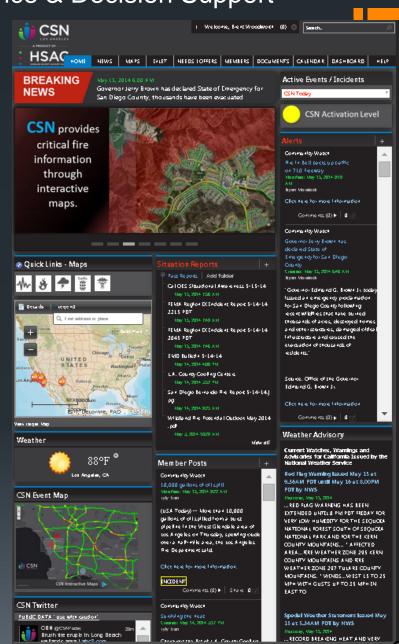
Developed by: Business, Government, Non-profit, Faith Based, Academic and Community Associations



A trusted source for Business Intelligence & Decision Support

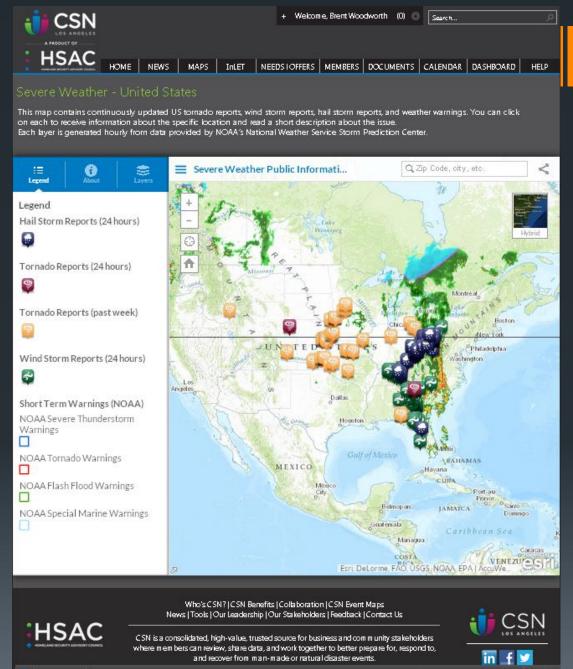
Situational Awareness Capabilities

- Breaking News & Daily Updates
- 2. Interactive Maps
- Earthquake Impact Modeling
- 4. Trusted Situation Reports
- 5. Stakeholder Sector Posts
- Social Networking Data
- Secure Collaboration Board
- Needs / Offers Posting
- 9. Instant Polling & Surveys
- 10. Customized Dashboard
- 11. Calendar & Weather
- 12. Handheld Device Support



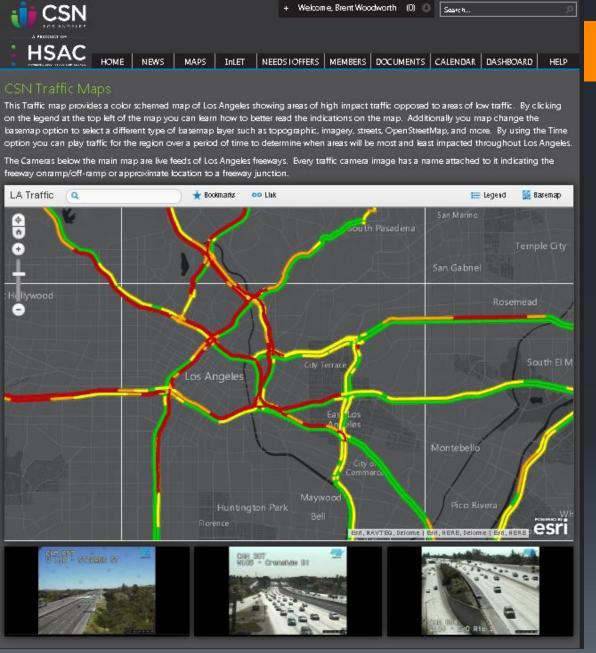
Interactive Mapping

- Severe Weather
- Event Maps
- Transportation
- Utilities
- Relief Sites
- Crowd-sourcing
- EQ Impact



Interactive Mapping

- Live Traffic
- Event Maps
- Transportation
- Utilities
- Relief Sites
- Crowd-sourcing
- EQ Impact



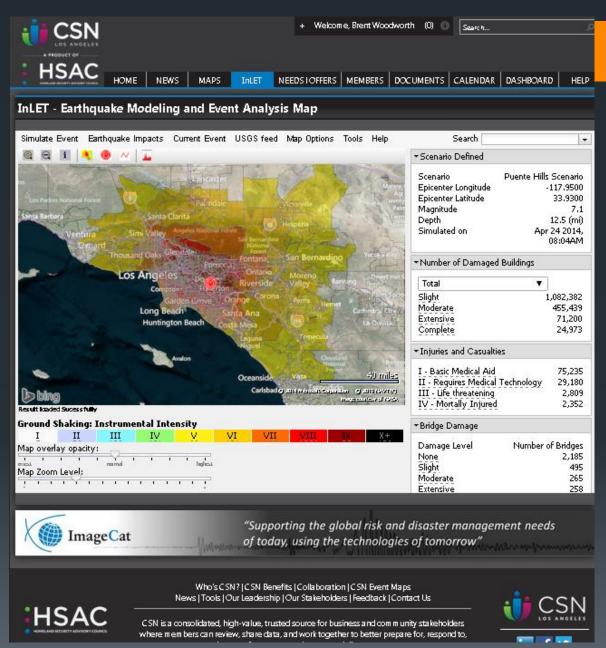
Advanced Mapping

- Pre-event Modeling
- Actual Event Analysis

Multiple data layers

- Linked to USGS
- Utilizes HAZUS

Damage and loss Estimation analysis

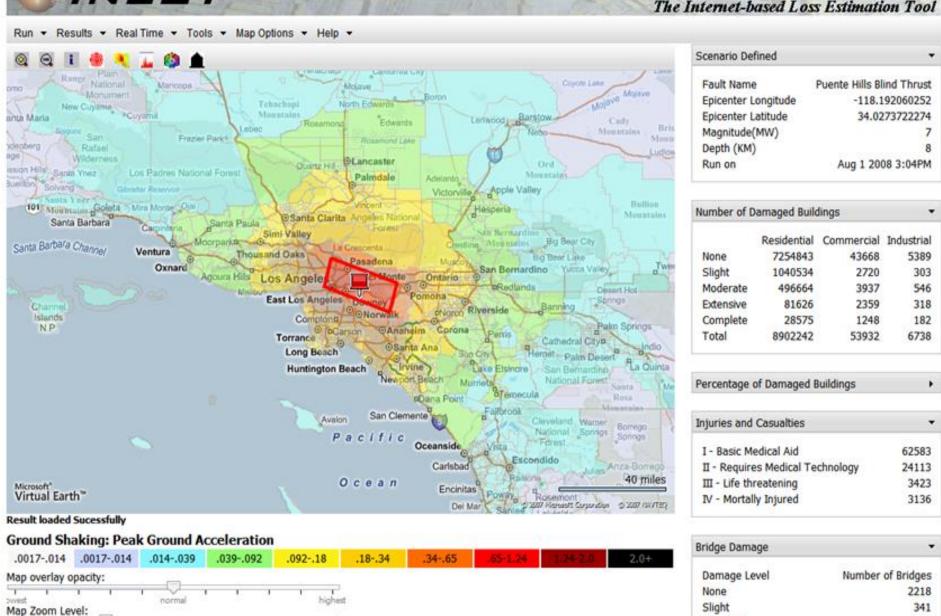




The Internet-based Loss Estimation Tool

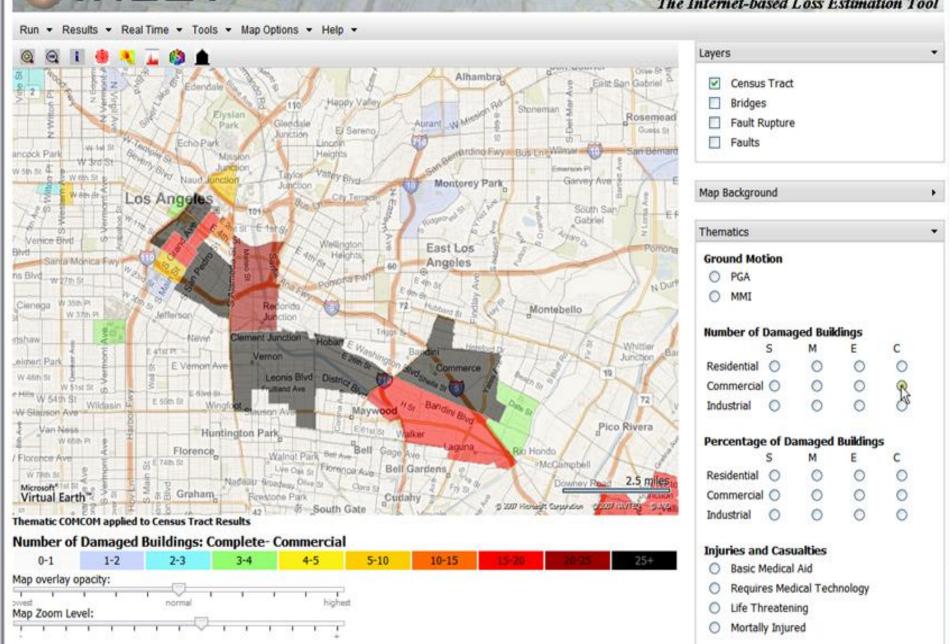
Moderate

Extensive

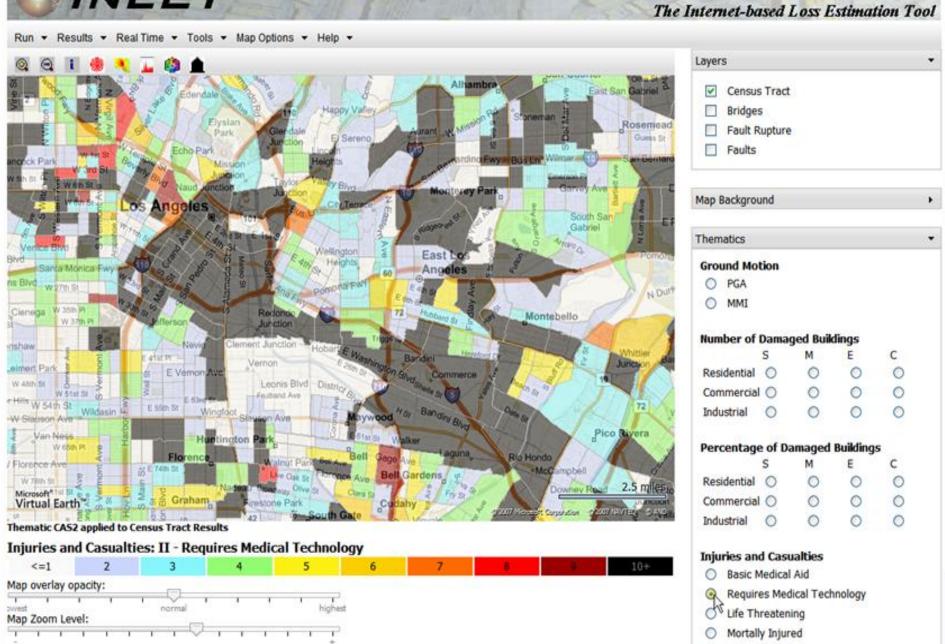


603









BREAKING NEWS

Feb 24, 2014 5:00 PM

2 to 4 inches of rain expected throughout Los Angeles County in coming days.

Severe Storm 2014



February 2014

2/24

Storm approaching Southern California

CSN tracking Weather reports.

Breaking News posted on CSN.

2/25

2/25 – News reports indicate major Storm event approaching.

CSN tracking Weather reports.

Alert Posted on CSN. (Voluntary Evacuations)

2/26

2/26 - CSN Alerts for predicted evacuations (Colby Burn area)

CSN team activated -Preparedness activities started

CSN Mapping for Colby burn area gathered.

CSN Breaking news activated.

2/27

CSN staff fully activated

CSN starts Coordination with LA County EOC

CSN staff begin preparations for high probability impact areas.

CSN staff develop maps in preparation for possible flooding and landslides.

CSN staff customize Home Dashboard.

BREAKING NEWS

2 to 4 inches of rain expected throughout Los Angeles County in coming days.

Member Post



Bryan.Morelock@gmail.com

STORMY WEATHER WITH SIGNIFICANT RAINFALL EXPECTED DURING THE SECOND HALF OF THE WEEK... A DRAMATIC CHANGE IN THE WEATHER IS EXPECTED THE SECOND HALF OF THE WEEK AS A COUPLE OF WINTER STORMS ARE FORECAST TO MOVE ACROSS SOUTHWESTERN CALIFORNIA. THESE TWO STORMS WILL BRING SIGNIFICANT RAINFALL...HIGH ELEVATION SNOW AND GUSTY WINDS





bryanmorelock@itcrisis.com

Residents in Colby Fire burn area voluntarily asked to evacuate. Colby Fire burn area includes all properties north of Sierra Madre between the western city boundaries of Azusa/Glendora (Yucca Ridge) to the eastern boundary of properties on the west side of the Little Dalton Wash (near Loraine Ave.). These areas have the highest risk of being impacted by flooding/debris flows from rainfall due to the loss of vegetation from the

BREAKING NEWS

City of Glendora on Orange Alert, Voluntary Evacuations ordered



bryanmorelock@itcrisis.com

The City of Glendora has downgraded to the YELLOW level protocol for the Colby Fire Impact Area, NO EVACUATIONS are in effect. If you have been evacuated, you may now go home. We appreciate your patience during this storm. Go to cityofglendora.org/colbyfire and cityofglendora.org/afterthestorm for additional information.





2/27

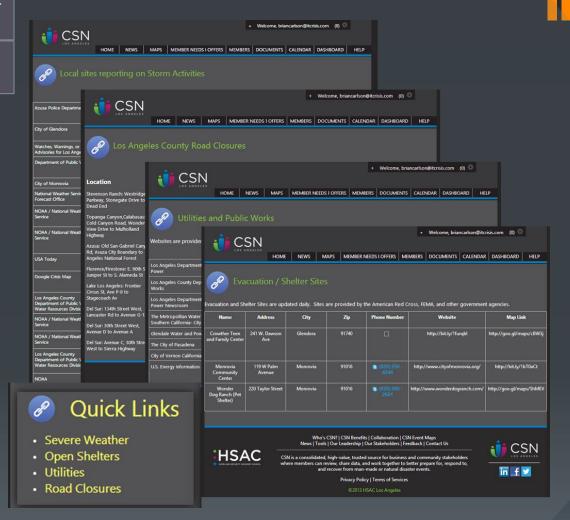
CSN staff fully activated

CSN starts Coordination with Members CSN staff begin calling CSN member organizations.

Needs / Offers posted prior to the event.

CSN staff create Quick Links pages in preparation for member self service needs.





2/28 5:45 am CSN staff arrive at LA County

6:00 am - 6:00 pm

LA EOC activated

at Level 2.

CSN able to coordinate collaboration with EOC representatives.

Situation Reports posted.

for information and updating system. Important updates posted on average every 15 minutes.

"Severe Weather" map to track storm cells.

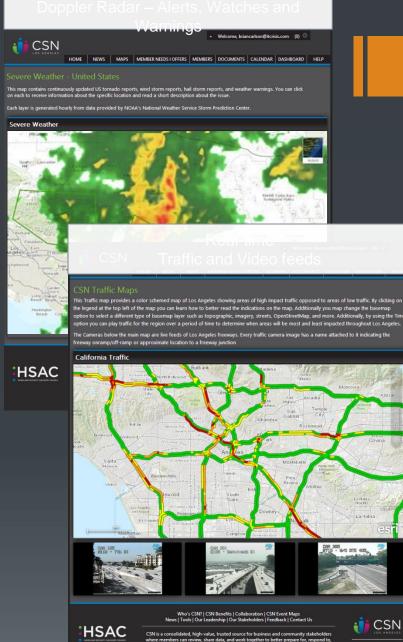
"Traffic" map to track storm cell impact.

situation updates.

6:00 pm LA EOC scales down.

9:00 pm **CSN** departs EOC.

CSN team crawling sources CSN adds interactive CSN adds interactive CSN participated in all EOC CSN community updates posted on average 2 hours before public release from EOC.



Severe Storm

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Thank You



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