

Compounding and Cascading Events

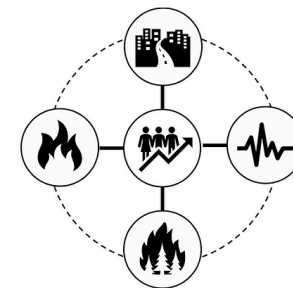
Panel 1: Towards a Better Understanding of Cascading and Compounding Disasters: Characterizing Drivers, Systems, and Relationships

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**Khorasani
Research Group**

Fire Following Earthquake



Credit: LA Times

Northridge Earthquake, California, 1994



Credit: NPR

Great-East Japan Earthquake, 2011

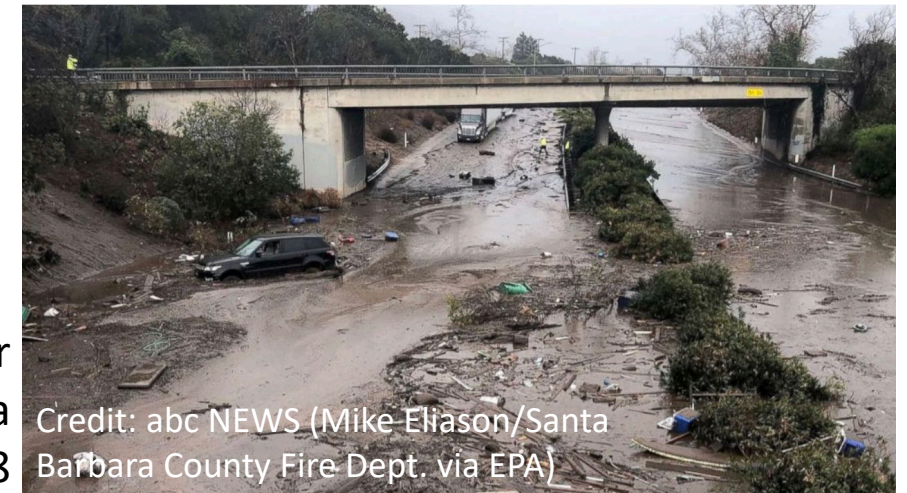
Fire Following Hurricane



Credit: NY Daily News

Breezy Point, NY,
Hurricane Sandy, 2012

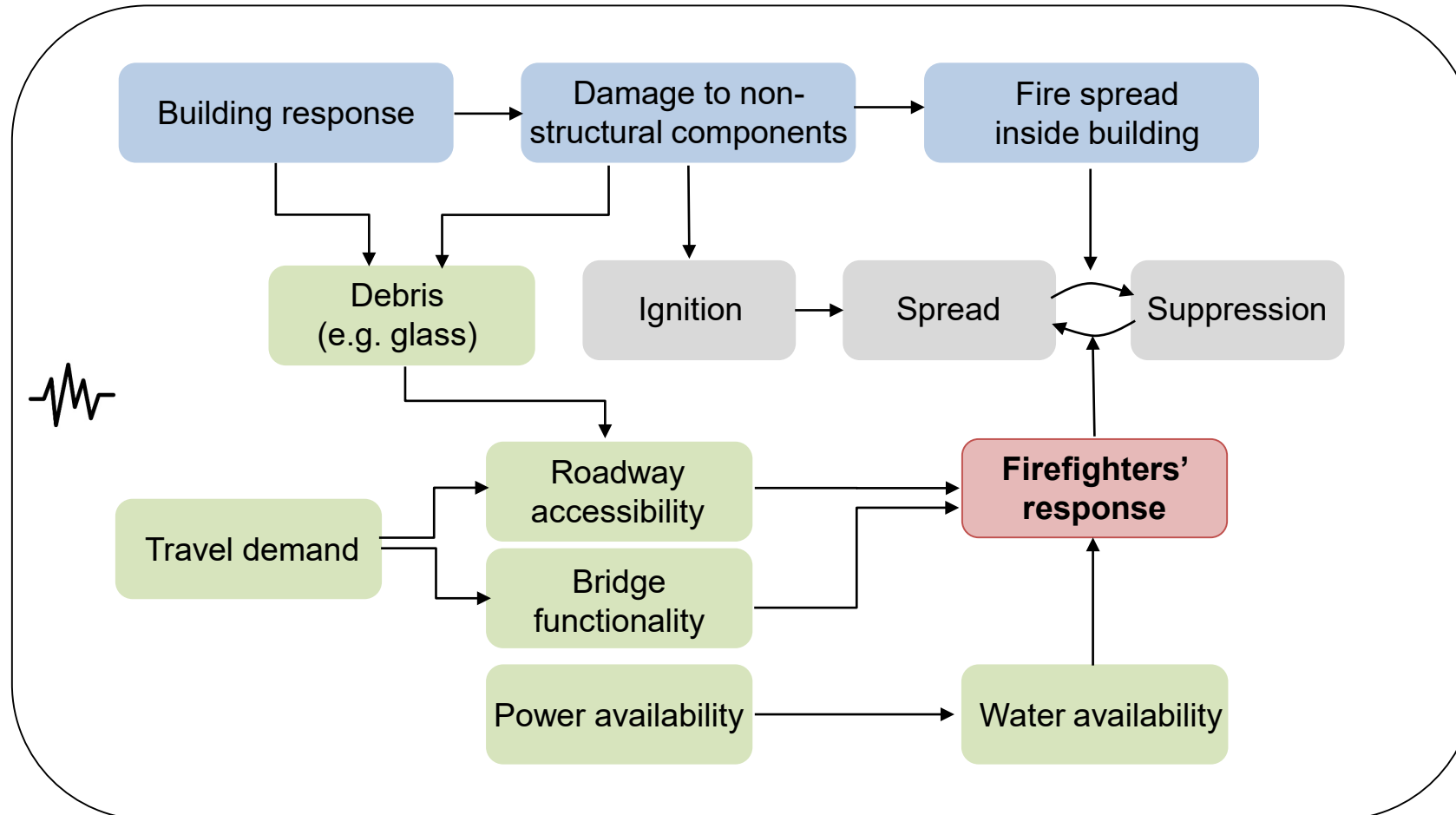
Post Wildfire Flood & Debris Flow



Credit: abc NEWS (Mike Eliason/Santa
Barbara County Fire Dept. via EPA)

Mudslides after
Thomas Fire, Santa
Barbara County, 2018

Damage to infrastructure networks and their interdependencies extend the impact of disaster and incurred losses:



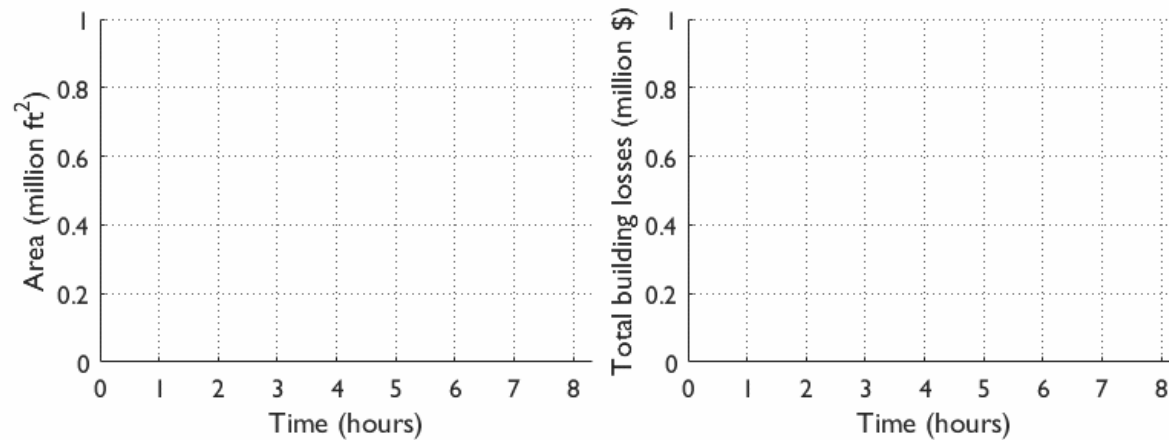
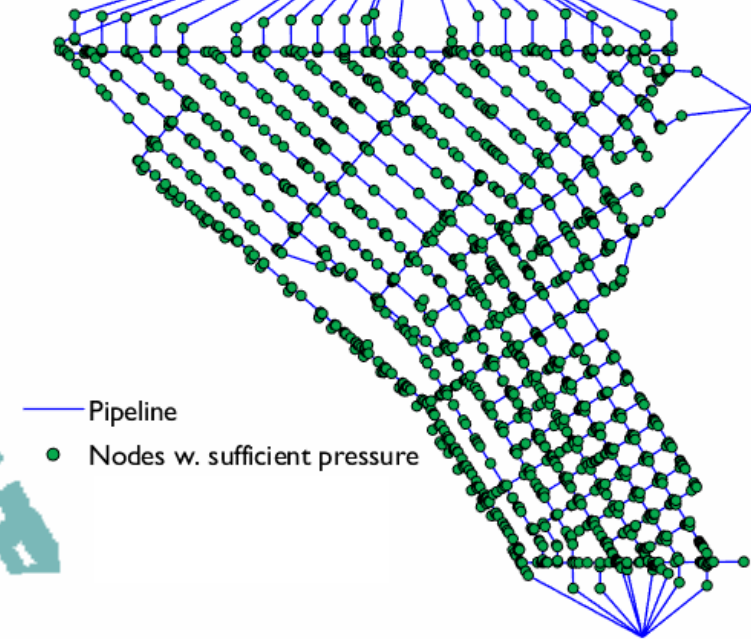
Transportation network



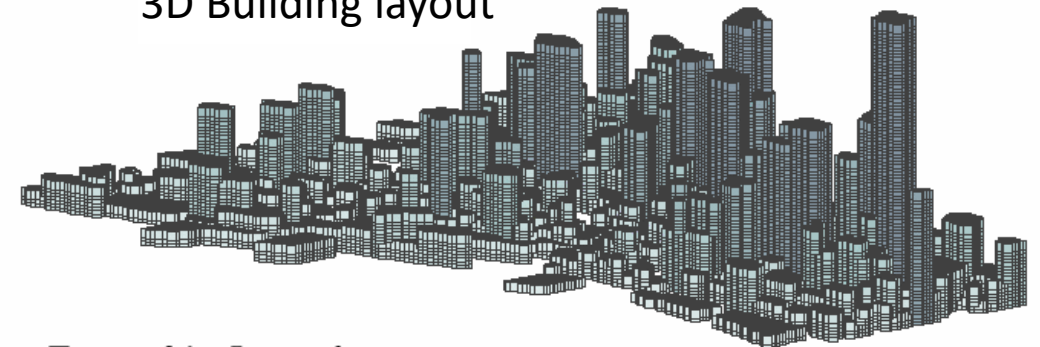
Building layout



Water network



3D Building layout



Time = 0 hr 5 min after ignition