

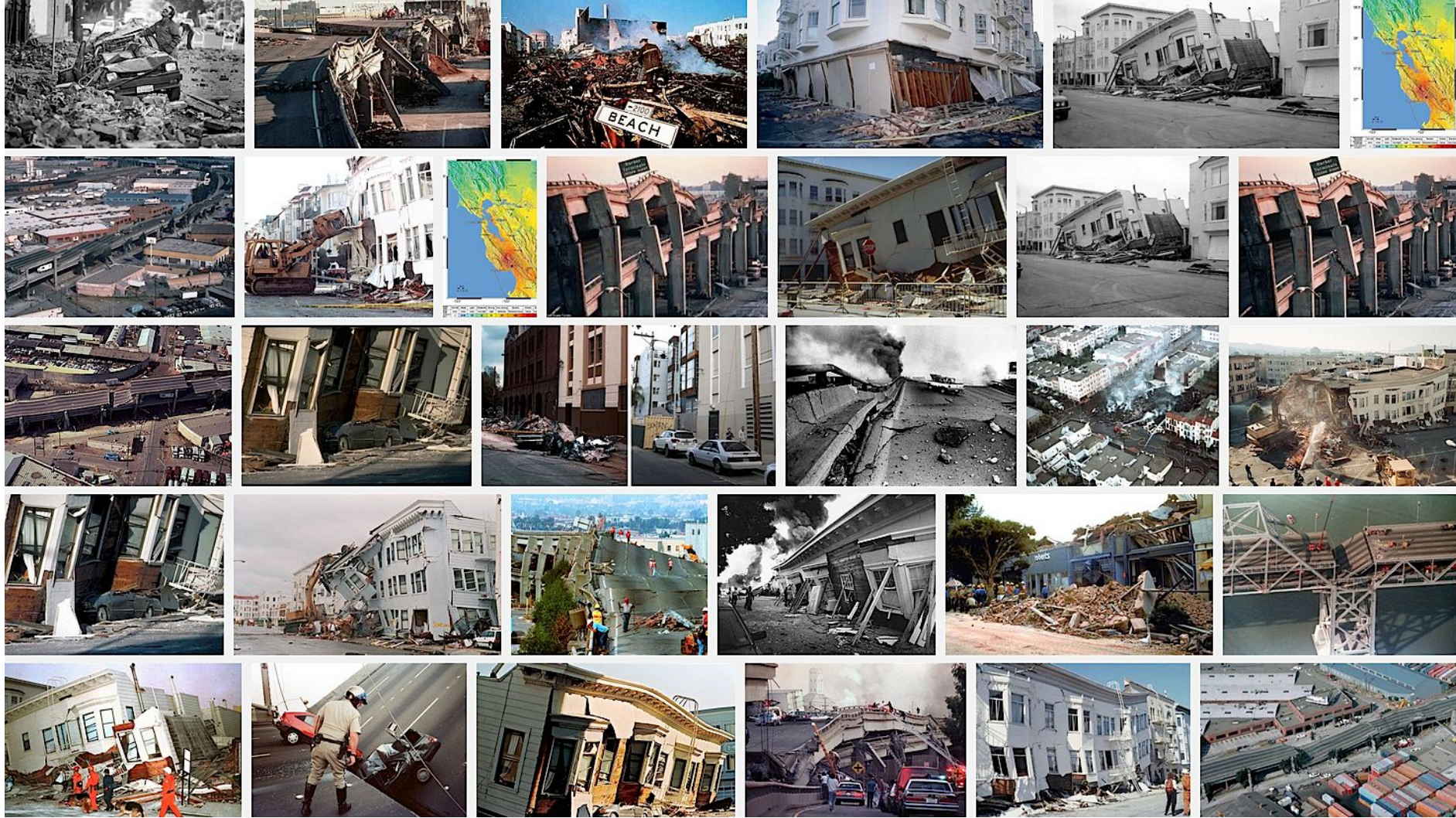
# Using OpenStreetMap and QGIS to build resiliency maps



The view from San Francisco, California  
**Stefano Maffulli**

FOSDEM 2019









**Warm clothes and sturdy shoes**



**Radio (battery operated or hand crank)**



**Cash**

[Https://www.sf72.org](https://www.sf72.org)



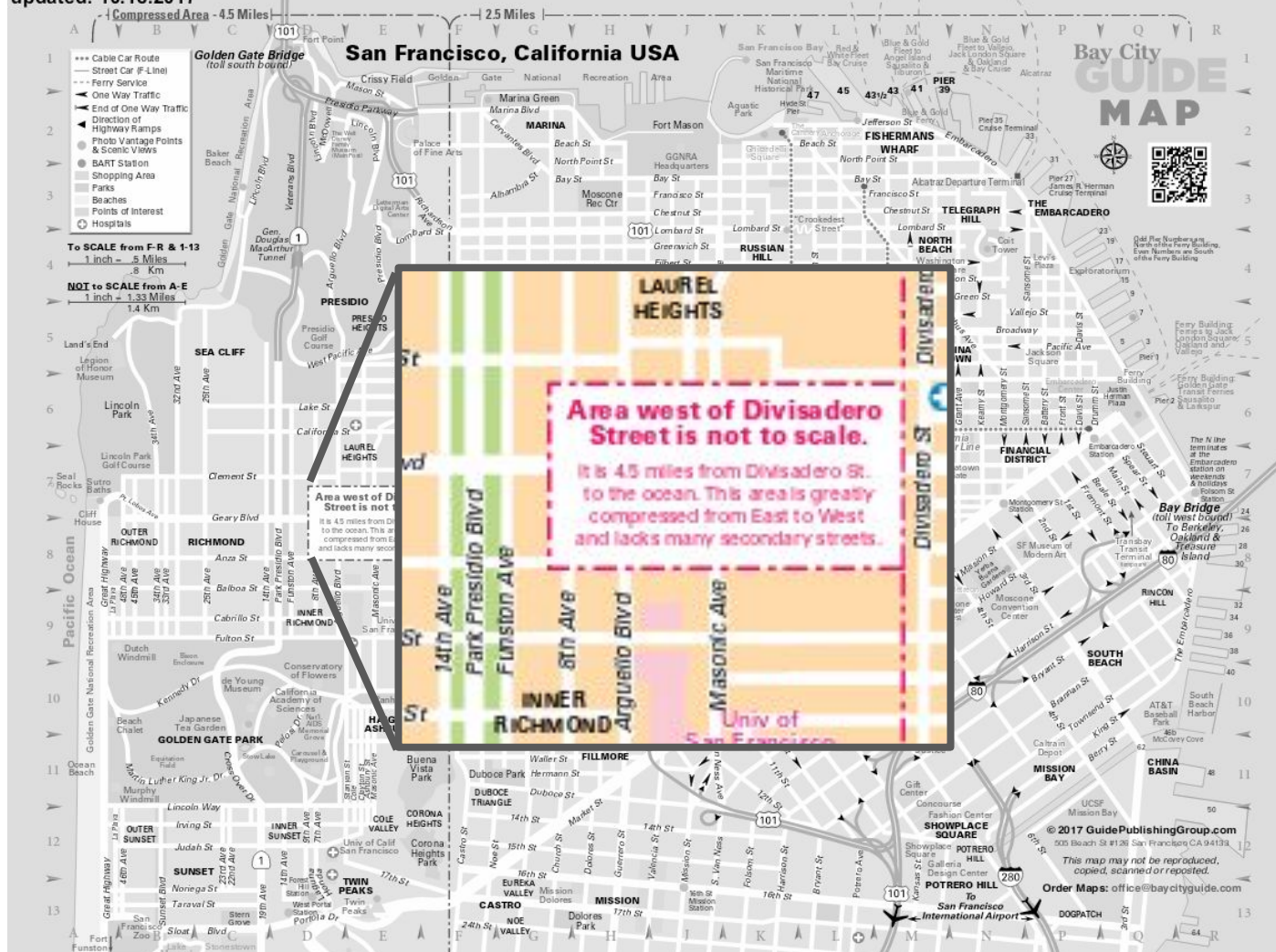
**Sleeping bag or blankets**



**Cellphone charger (battery operated or car plug-in)**



**Tools**





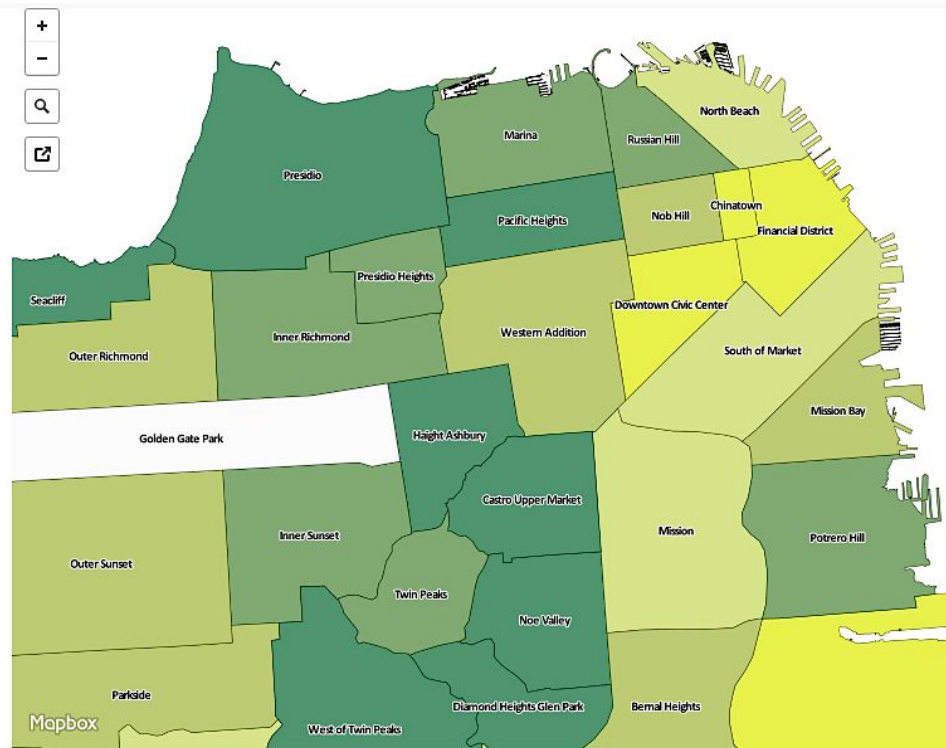




## San Francisco Climate & Health Program

[Climate Projections](#)

[Health Impacts](#)



[sfclimatehealth.org/neighborhoods](https://sfclimatehealth.org/neighborhoods)





I have a plan.



Search

Where is this?

Go



## Query Features

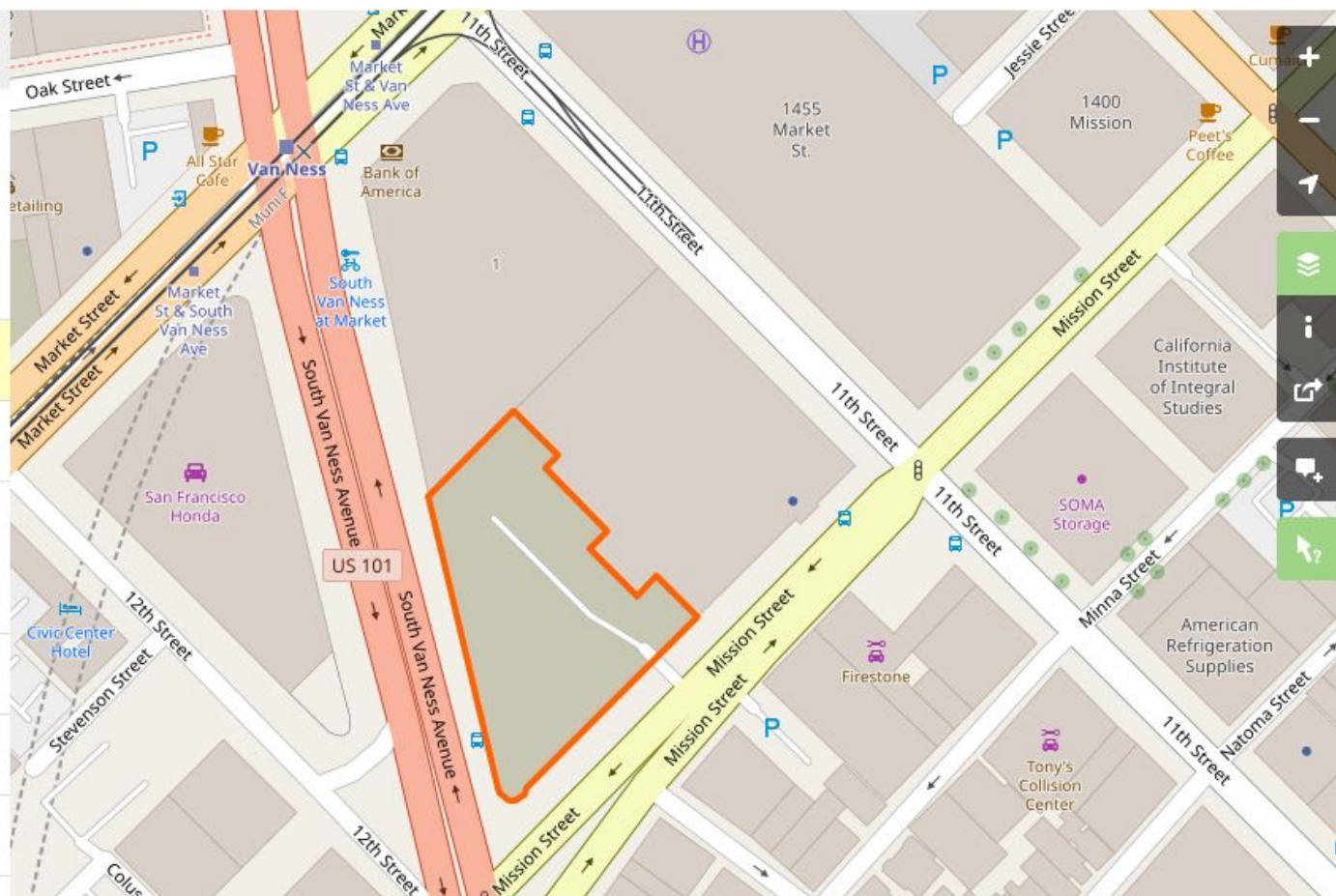
## Nearby features

Building #32945902

Construction #32945927

Service Road #563926188

## Enclosing features

County Boundary [San Francisco City and County](#)City Boundary [San Francisco](#)State Boundary [California](#)Timezone [America/Los\\_Angeles Timezone](#)

# Why use OSM for a resiliency map

Most features are readily available:

- Hospitals, schools, fire stations
- Places with hazardous materials like:
  - Car (and other vehicle) repair shops (shop:car\_repair)
  - Construction zones (landuse:construction)
  - Gas stations (amenity:fuel)

OSM has a built-in review and edit process for data-entry and validation



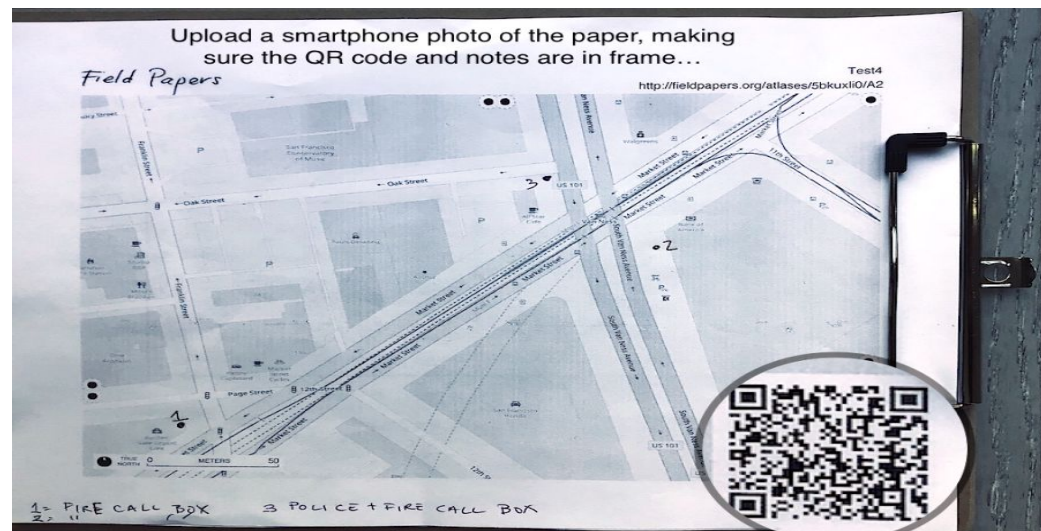
# Making OSM work for your city

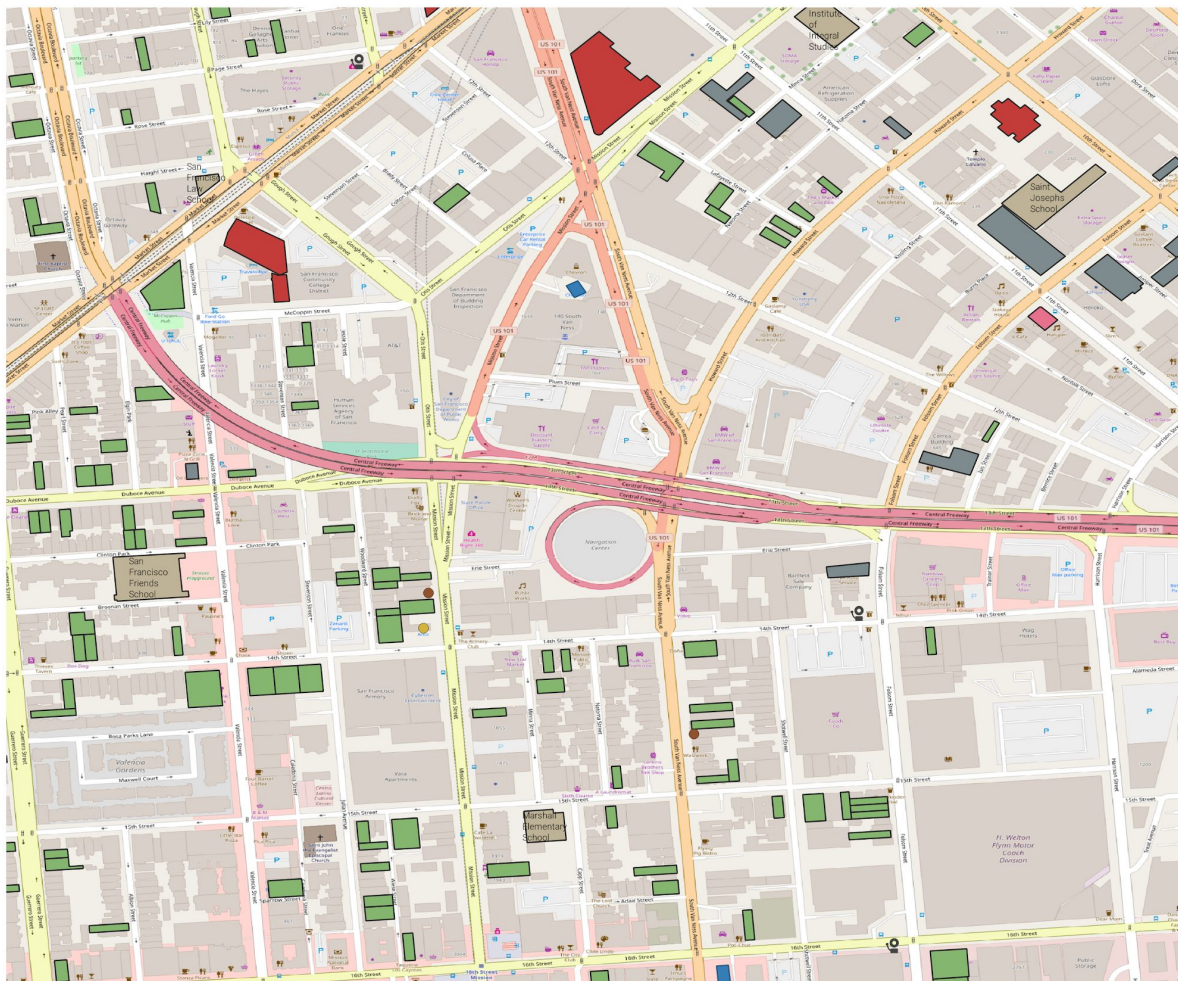






# Getting the mappers out





- amenity\_fuel
  - shop\_car\_repair
  - 🚒 fire\_alarm
  - ⛑️ amenity\_hospital
  - amenity\_fuel
  - building\_construction
  - landuse\_construction
  - amenity\_hospital
  - shop\_car\_repair
  - amenity\_school
  - Softstory buildings
  - SF buildings
- OSM Standard



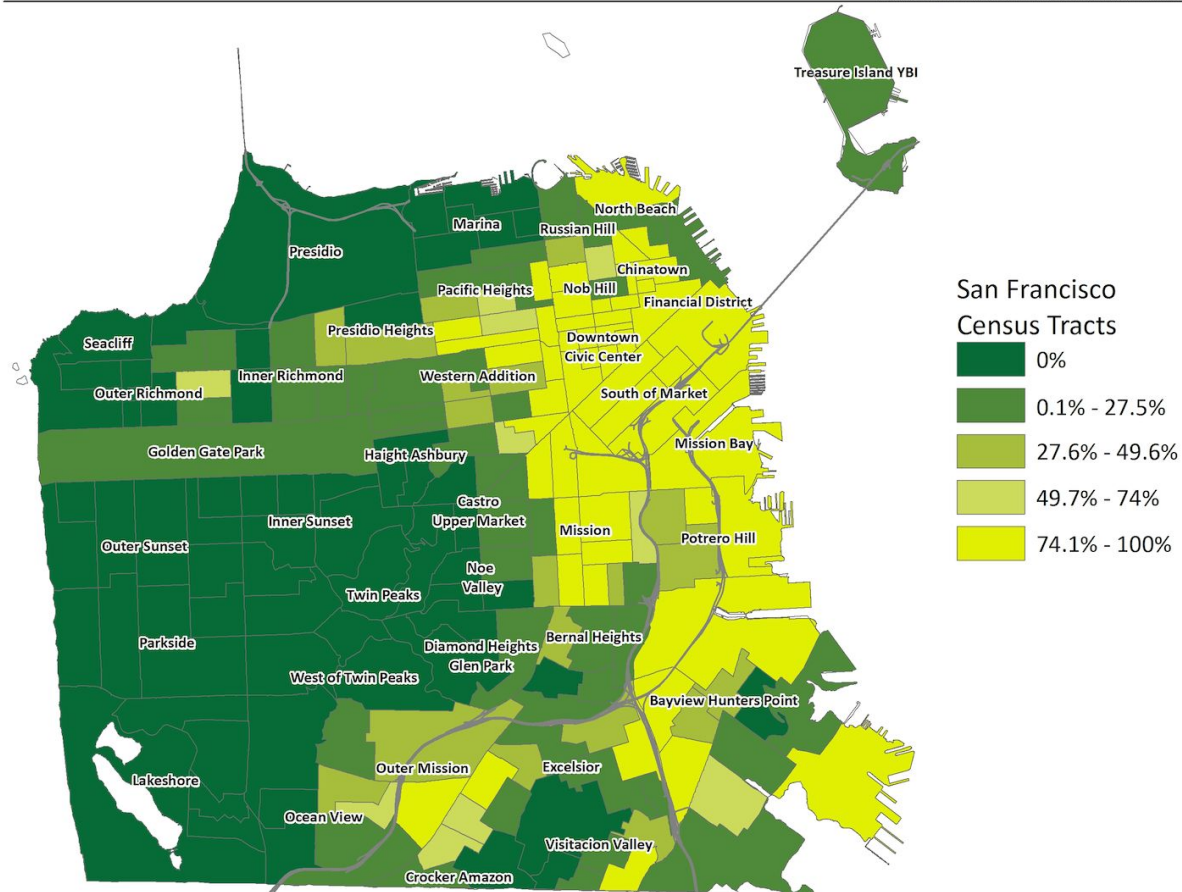
Not just quakes



ANDREW LOUIE PHOTOGRAPHY (C)2014

# Percent of land-area in 'high' or 'very high' heat vulnerability zones

City and County of San Francisco Department of Public Health: Environmental Health Branch



Created Date: 8/11/14



# What's next

More data entry for San Francisco

- Ongoing, fairly easy to solve

A better system for visualization and printing

- Light-weight (no custom OSM server)

Expansion to other areas

- Want to run a resiliency map initiative in your community?

# Keep in touch!

resiliencymaps.org (updates, tutorials, mailing list)

Twitter: @resiliencymaps

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