

# ENVIRONMENTAL HAZARDS IN VALLEJO



**Earthquake**



**Wildfire**



**Drought**



**Extreme  
Weather**

## Earthquake

- Statewide, moderate earthquakes ( $\geq$  M5.5) may occur up to four times a year. Strong earthquakes (M6-M6.9) occur on an average of every 2-3 years. Major earthquakes (M7-M7.9) occur about every decade.
- An earthquake ( $\geq$  M6.7) in the Bay Area would generate strong shaking & ground failure throughout the region, damaging nearly all of the Bay Area.
- The Concord-Green Valley & the Hayward-Rodger's Creek faults have the highest likelihood of producing a M6.7 earthquake within the next 30 years.
- Building types susceptible to earthquake damage include structures built prior to 1950, unreinforced masonry buildings (URMs) & soft-story buildings. URMs can be reinforced with the addition of structural reinforcements.

## Wildfire

- Wildfires are uncontrolled fires on undeveloped land, requiring suppression. They can be initiated naturally or by humans (85% of cases).
- Wildfires compromise rivers and watersheds, wildlife habitats, and local economies. After wildfires, the vulnerability to flooding increases due to forest destruction & ground cover damage within watersheds. Secondary hazards include reservoir contamination, transmission line destruction and flood contribution.
- Smoke and air pollution contains soot, tar & toxins (e.g., formaldehyde, benzene). Health impacts include difficulty breathing, depression & anxiety.
- Climate change can make forests more vulnerable (e.g., drought, invasive species) & increases lightning occurrences, wind speeds, and hot, dry spells.

## Drought

- Water resources in Solano County have been stressed by periodic drought cycles and overuse. Climate change is expected to exacerbate existing conditions. A few weeks of drought during critical periods of agricultural development can have disastrous effects.
- Drought impacts the entire county via reduced air & water quality, increased water prices, restricted access to recreational areas & water restrictions.
- Climate change will likely exacerbate the following stresses: growing population, poor water quality, groundwater overdrafts & aging urban water infrastructure.

## Extreme Weather

- Extreme weather encompasses high heat, high winds & heavy rain.
- Winds over 60 mph are damaging. High winds can cause damage across areas of up to hundreds of miles.
- Heavy rain can cause flooding, especially on impervious surfaces.
- Of the three types of extreme weather, heavy rain events from 2000-2020 caused the second greatest dollar amount in property damages.
- Warning time for all three types of extreme weather are generally available several days in advance.

# NEXT STEPS TO CONSIDER



## Earthquake

- Download "My Earthquake Alerts & Feed" app
- Review the California Residential Mitigation Program for seismic retrofitting options at [californiaresidentialmitigationprogram.com](http://californiaresidentialmitigationprogram.com)
- Be aware of active faults: [usgs.gov/programs/earthquake-hazards/hazards](http://usgs.gov/programs/earthquake-hazards/hazards)



## Wildfire

- Search for nearby Fire Safe Councils (e.g., Green Valley)
- Check the news for potential free air purifier programs
- Monitor air quality with PurpleAir Sensors [www2.purpleair.com](http://www2.purpleair.com)
- Review prevention strategies & report tall/excessive weeds on vacant lots at [vallejoca.hosted.civiclive.com/cms/one.aspx?portalId=16925451&pageId=17871056](http://vallejoca.hosted.civiclive.com/cms/one.aspx?portalId=16925451&pageId=17871056)



## Drought

- Review the National Drought Monitor at [droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)
- Review drought status/restrictions at [vallejoca.hosted.civiclive.com/cms/one.aspx?portalId=16925451&pageId=17968563](http://vallejoca.hosted.civiclive.com/cms/one.aspx?portalId=16925451&pageId=17968563)
- Install a sustainable garden designed around secondary water
- Participate in the water-efficient landscape rebate program (up to \$1,000) offered by SCWA



## Extreme Weather

- Register for Alert Solano at [AlertSolano.com](http://AlertSolano.com)
- Download American Red Cross' "Emergency: Alerts" app
- Review emergency information at [solanocounty.com/depts/oes/emergency](http://solanocounty.com/depts/oes/emergency)

