ENVIRONMENTAL HAZARDS IN FAIRFIELD

Earthquake

Wildfire

Flood

Extreme Weather

Earthquake

- Statewide, moderate earthquakes (≥ 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 (≥ 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.

Flood

- Flooding is the second most destructive hazard. It is usually caused by extreme weather & excessive rainfall. Secondary hazards include levee failure & bank erosion.
- The National Flood Insurance Program (NFIP) offers insurance to homeowners, renters & business owners in participating communities such as Fairfield. Participating communities must regulate any development in floodplain areas per NFIP criteria (e.g., new buildings must be elevated to protect against damage by a 100-year flood).
- Warning times range from 24 to 48 hours for communities to prepare.

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
- Be aware of active faults: 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
- Review wildfire prevention tips at fairfield.ca.gov/government/city-departments/fire/fire-prevention-and-inspection-program/wildfire-prevention

Flood

- Review floodplain management at fairfield.ca.gov/government/city-departments/public-works/floodplain-management?locale=en
- Review resources at water.ca.gov/Programs/Flood-Management/Community-Resources/Flood-Risk
- Review Flood Factor at riskfactor.com
- Review the Adapting to Rising Tides program at explorer.adaptingtorisingtides.org/home

Extreme Weather

- Register for Alert Solano at AlertSolano.com
- Download American Red Cross' "Emergency: Alerts" app
- Review emergency information at solanocounty.com/depts/oes/emergency
- Review disaster preparedness resources at fairfield.ca.gov/government/city-departments/fire/c-e-r-t/emergency-preparedness