



# Lake County Preparedness 101

*Friends of Twin Lakes*



**Public Health**  
Prevent. Promote. Protect.

12 September 2022



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# Purpose and Intent

- **Purpose**—To provide basic preparedness information to the FoTL community
- **Intent**—Promote and enhance preparedness and resilience for the individual, families and communities in the southern part of Lake County



To ***save lives*** and protect our community—through ***whole community preparation***



# Agenda

- Introductions
- Context for disaster and emergency discussion
- Personal preparedness
- Questions



# Why Prepare?

- FEMA @ Ready.gov 72 hours
- Recent disasters
- The unexpected event
- Personal resilience
- Community resilience
- Take advantage of ***Blue-Sky*** time







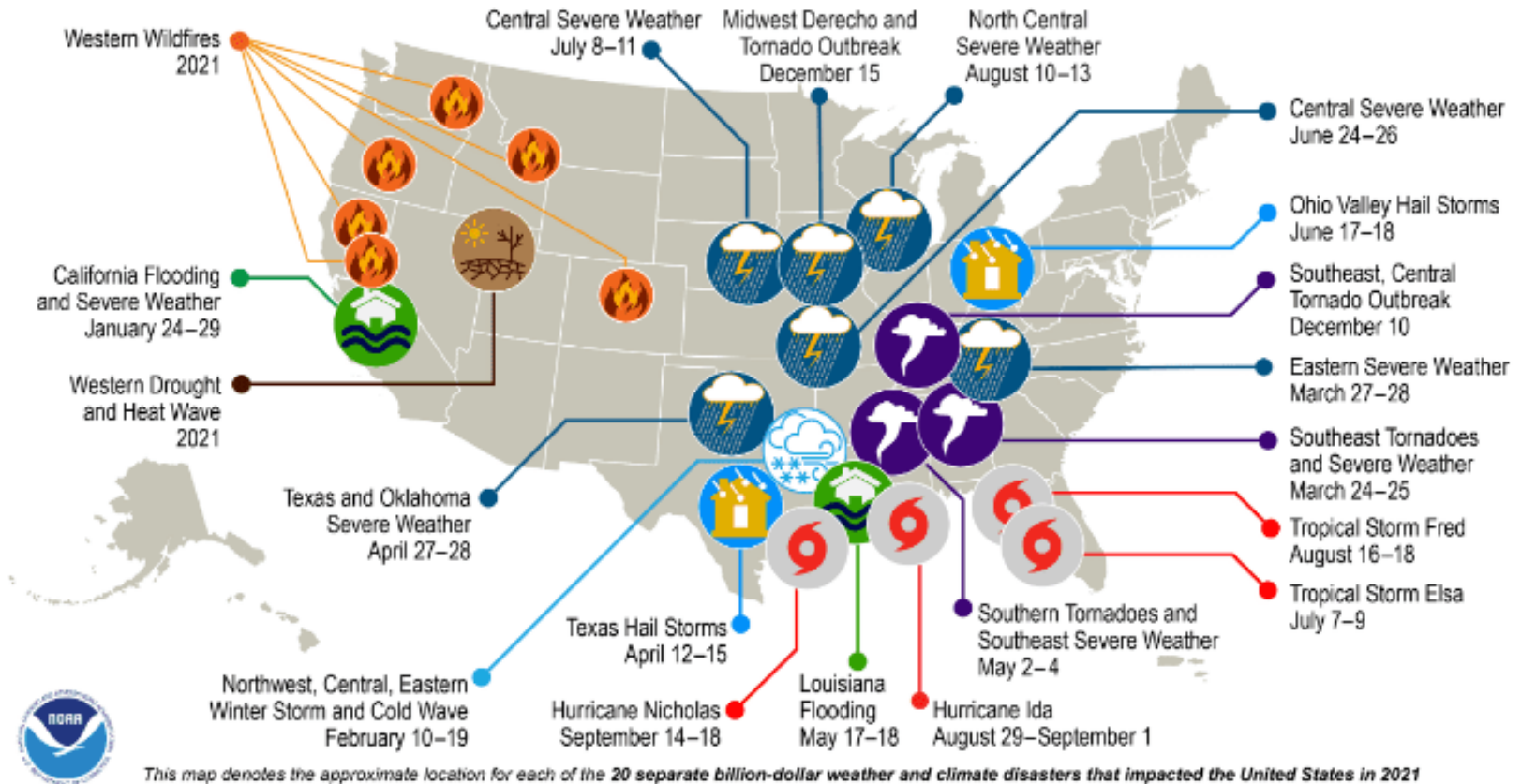


# National 2021 Natural Disasters



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## U.S. 2021 Billion-Dollar Weather and Climate Disasters



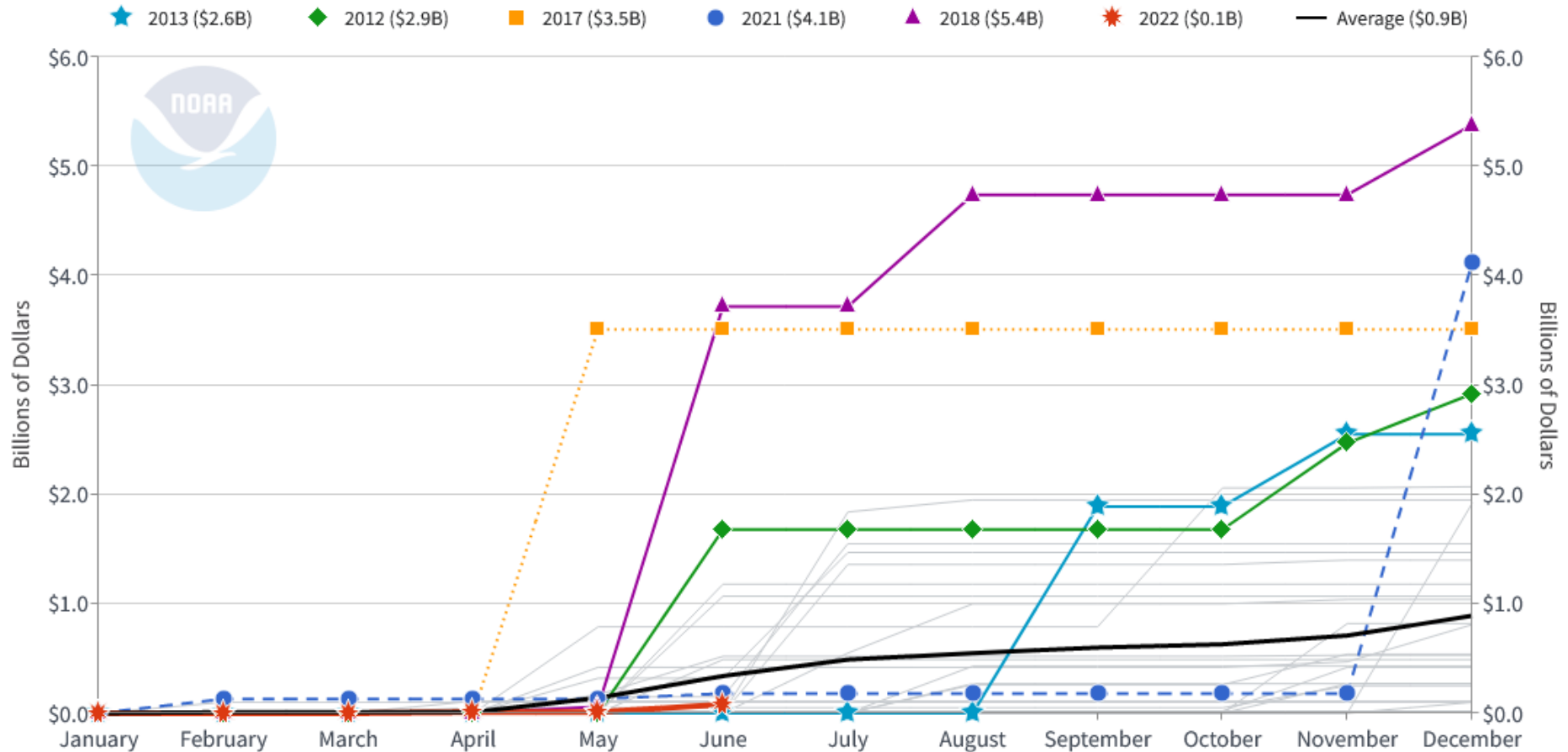
Source: NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2022).  
<https://www.ncei.noaa.gov/access/billions/>



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# Colorado 2022

### 1980-2022 Colorado Billion-Dollar Disaster Event Cost (CPI-Adjusted)



Updated: July 11, 2022

\*Costs not included for Western/Southern Plains Drought (2022)

Event statistics are added according to the date on which they ended.

Powered by ZingChart



# 2020 Colorado Emergency Preparedness Assessment (CEPA)

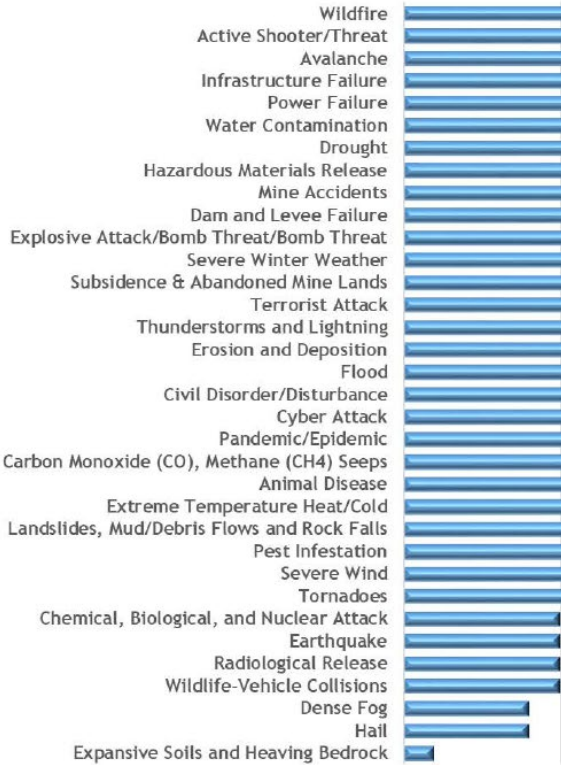


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Relative Risk  
Likelihood x Consequence

25

15



Likelihood	
Very Low (1)	This event is not expected to occur within this county.
Low	There is the potential for this event to occur, but it is very unlikely in this county.
Medium	This event could occur, but it generally does not happen with any regular frequency in this county (natural/accidental hazards) and current intelligence does not indicate that it is an imminent threat (for terrorism).
High	It is likely that this event will occur in this county based on historical precedence (natural/accidental hazards) or current intelligence reporting (terrorism threats).
Very High (5)	This event is expected to occur, without question, based on historical precedence in this county (natural/accidental hazards) or current intelligence reporting (terrorism threats).
Consequence	
Very Low (1)	This event would cause virtually no impact on the people, responders, property and economy in this county.
Low	The impact of this event would be minimal on the people, responders, property, and economy in this county; response could generally be done without mutual aid.
Medium	The impact of this event would be noticeable on the people, responders, property and economy in this county; mutual aid would likely be needed from other counties and/or the State.
High	The impact of this event would be very significant on the people, responders, property and economy in this county; significant mutual aid resources would be called in from surrounding counties, the State, and the Federal government.
Very High (5)	This event would have a devastating (or potentially catastrophic) impact on the people, responders, property and economy in this county; all mutual aid networks (local, State, and Federal) would be immediately utilized and government functions would severely or wholly be compromised.





# 2019 Hazard Vulnerability Analysis

## Natural Hazards



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Table 12. Lake County Vulnerability Analysis Results

HAZARD	PROBABILITY	SEVERITY = (MAGNITUDE - MITIGATION)			Preparedness	County Response	External Response	Relative Risk = Probability* Severity
		Human Impact	Property Impact	Business Impact				
	Likelihood this will occur	Possibility of death or injury	Physical losses and damages	Interruption of services	Preplanning	Time, effectiveness, resources	Community/ Mutual Aid staff and supplies	
Avalanche	High	High	Medium	Medium	Medium	Medium	High	
Dam Failure	Low	High	Medium	Medium	Low	Low	Medium	
Drought	Medium	High	Medium	Medium	Low	Low	High	
Earthquake	Low	Low	Medium	Medium	Medium	Medium	Low	
Expansive Soils	NA	NA	Low	Low	Medium	Medium	NA	
Flood	Medium	Low	Medium	Medium	Medium	Medium	Medium	
Hailstorm	Low	Low	Low	Low	Medium	Medium	Low	
Landslides	Low	Medium	Low	Low	Low	Medium	Low	
Severe Thunderstorm	Medium	Low	Medium	Medium	Medium	Medium	Medium	
Snow Fall/ Blizzard	High	Medium	Medium	Medium	Medium	Medium	High	
Subsidence [Land]	Medium	Low	Medium	Medium	Low	Low	Medium	
Temperature Extremes	Medium	Medium	Medium	Medium	Medium	Medium	Medium	
Tornado	Low	Low	Low	Low	Low	Medium	Low	
Wildland Fire	High	Medium	Medium	Medium	Medium	Medium	High	
Windstorm	Medium	Low	Low	Medium	Medium	Medium	Medium	

Typically #1 Natural hazard [Winter]

Move to #1 Natural hazard in June



# 2019 Hazard Vulnerability Analysis

## Technological Hazards



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### HAZARD AND VULNERABILITY ASSESSMENT TOOL TECHNOLOGIC EVENTS- (Lake County)

EVENT	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK <i>Relative threat*</i>
		HUMAN IMPACT <i>Possibility of death or injury</i>	PROPERTY IMPACT <i>Physical losses and damages</i>	BUSINESS IMPACT <i>Interruption of services</i>	PREPARED-NESS <i>Preplanning</i>	INTERNAL RESPONSE <i>Time, effectiveness, resources</i>	EXTERNAL RESPONSE <i>Community/ Mutual Aid staff and supplies</i>	
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Electrical Failure	2	2	1	3	1	1	1	33%
Abandoned Mines	1	1	1	1	1	1	1	11%
Dam Failure	1	3	3	3	2	2	2	28%
Epidemic	1	1	1	1	1	1	2	13%
Fire, Structural	1	2	3	3	1	1	1	19%
Hazardous material	1	2	2	2	1	1	3	20%
Pipeline Failure	1	0	1	3	2	2	3	20%
Transportation Failure	1	1	1	3	2	3	2	22%
<b>AVERAGE SCORE</b>	<b>0.47</b>	<b>0.63</b>	<b>0.68</b>	<b>0.95</b>	<b>0.58</b>	<b>0.63</b>	<b>0.79</b>	<b>24%</b>

#1 Technological hazard

\*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY		
0.24	0.38	0.64



# 2019 Hazard Vulnerability Analysis



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## Human Caused Hazards

### HAZARD AND VULNERABILITY ASSESSMENT TOOL HUMAN RELATED EVENTS - (Lake County)

EVENT	PROBABILITY	SEVERITY = (MAGNITUDE - MITIGATION)						RISK
		HUMAN IMPACT	PROPERTY IMPACT	BUSINESS IMPACT	PREPARED-NESS	INTERNAL RESPONSE	EXTERNAL RESPONSE	
	<i>Likelihood this will occur</i>	<i>Possibility of death or injury</i>	<i>Physical losses and damages</i>	<i>Interruption of services</i>	<i>Preplanning</i>	<i>Time, effectiveness, resources</i>	<i>Community/ Mutual Aid staff and supplies</i>	<i>Relative threat*</i>
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Mass Casualty Incident (Airplane Crash)	1	2	1	2	2	2	2	20%
Civil Disturbance	1	2	2	2	1	1	1	17%
Mass Casualty Incident (Multi-car pile-up)	1	2	1	2	2	2	2	20%
Terrorism, Biological	1	3	1	3	2	2	2	24%
Terrorism, Chemical	1	2	2	2	3	3	1	24%
Terrorism, Explosive	1	2	2	3	2	2	1	22%
Terrorism, Radiological	1	2	2	2	1	1	1	17%
<b>AVERAGE</b>	<b>0.70</b>	<b>1.50</b>	<b>1.10</b>	<b>1.60</b>	<b>1.30</b>	<b>1.30</b>	<b>1.00</b>	<b>21%</b>

\*Threat increases with percentage.

<b>RISK = PROBABILITY * SEVERITY</b>
0.21                  0.33                  0.62



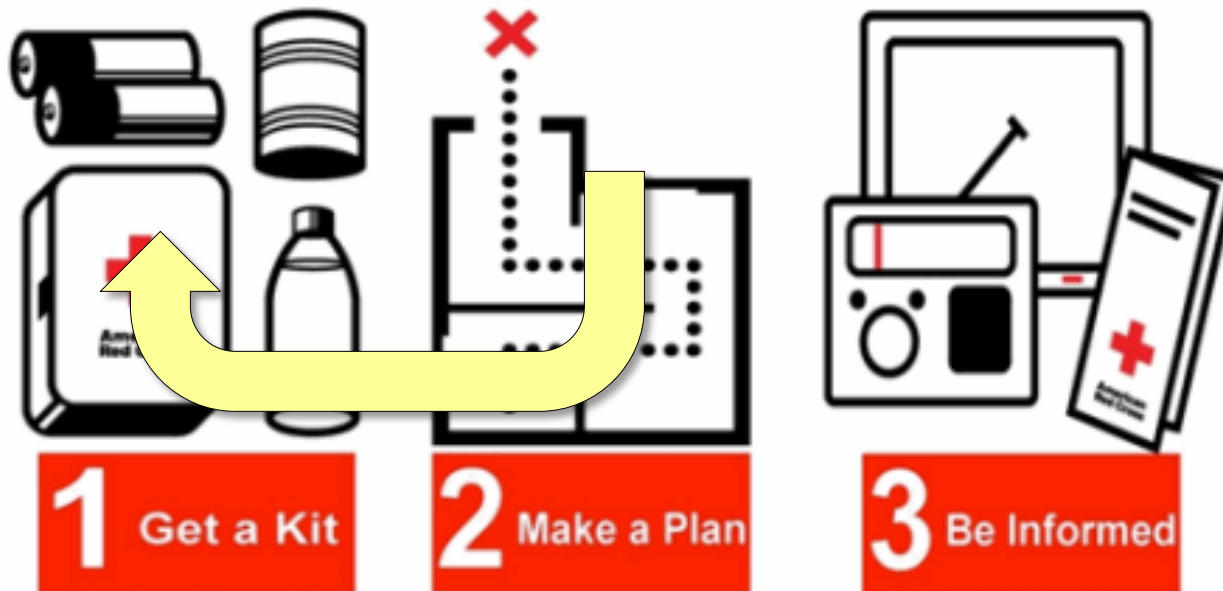
Situational Awareness->

Capabilities->Plans and filling gaps->

Training->Exercise->Evaluate\Adjust

# Be Red Cross Ready

Get a Kit. Make a Plan. Be Informed.





# Capabilities Assessment



- Individual
  - Knowledge, skills and training state
  - Equipment
    - Shelter in-place
    - Evacuation
    - VHF radios
- Community
  - Neighborhood network
  - Community training
  - Volunteering with American Red Cross, Lake County Office of Emergency Management, Public Health, Community Emergency Response Team (CERT)





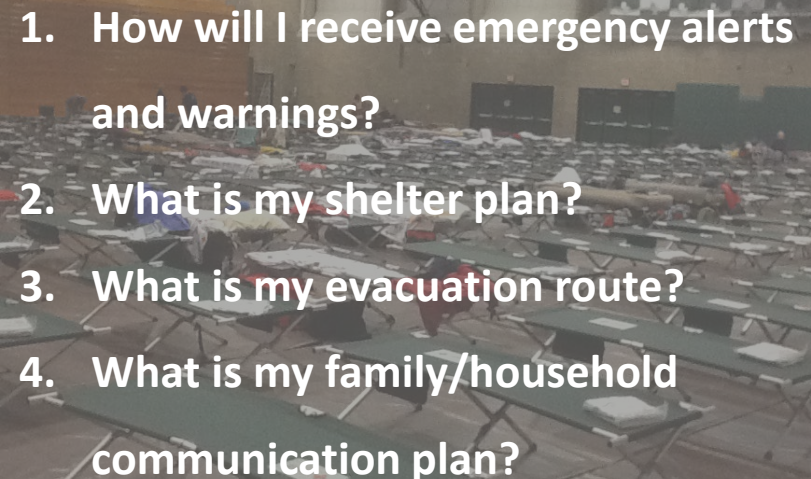
# Plans to Consider



- Location based
  - Home
  - Work
  - School
- Escape routes
  - Where to meet locally
    - Neighborhood, friends, community location
  - Where to meet out of Lake County
- Family communications
  - See [ready.gov/make-a-plan](https://www.ready.gov/make-a-plan)
  - Out of state
  - Texts
- Utility shut-off and safety
- Insurance and vital records
- Special needs
- Caring for animals

## American Red Cross *Shelter Locations:*

- Lake County High School
- Colorado Mountain College
- Lake County Middle School

- 
1. How will I receive emergency alerts and warnings?
  2. What is my shelter plan?
  3. What is my evacuation route?
  4. What is my family/household communication plan?



# Build a Kit

- **Emergency Supplies:**

Water, food, and clean air are important things to have if an emergency happens. Each family or individual's kit should be customized to meet specific needs, such as ***medications and infant formula***. It should also be customized to include important family documents.

- **Recommended Supplies to Include in a Basic Kit:**

- Water, one gallon of water per person per day, for drinking and sanitation
- Food, at least a three-day supply of non-perishable food
- **Battery-powered radio and a NOAA Weather Radio** with tone alert, and extra batteries for both
- Flashlight and extra batteries [recommend 1 head lamp]
- First Aid kit
- Whistle to signal for help
- Infant formula and diapers, if you have an infant
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Dust mask or cotton t-shirt, to help filter the air
- Plastic sheeting and duct tape to shelter-in-place
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)

**Printable lists for kits:** <https://www.ready.gov/kit>



# Family Supply List (continued)



Clothing and Bedding:

**If you live in a cold weather climate**, you must think about warmth. It is possible that the power will be out and you will not have heat. Rethink your clothing and bedding supplies to account for growing children and other family changes. One complete change of warm clothing and shoes per person, including:

- A jacket or coat
- Long pants
- A long sleeve shirt
- Sturdy shoes
- A hat and gloves
- A sleeping bag or warm blanket for each person



# Family Supply List (continued)



Below are some other items for your family to **consider** adding to its supply kit. Some of these items, especially those marked with a \* can be dangerous, so please have an adult collect these supplies.

- Emergency reference materials such as a first aid book or a printout of the information on [www.ready.gov](http://www.ready.gov)
- Rain gear
- Mess kits, paper cups, plates and plastic utensils
- Cash or traveler's checks, change
- Paper towels
- Fire Extinguisher
- Tent
- Compass
- Matches in a waterproof container\*
- Signal flare\*
- Paper, pencil
- Personal hygiene items including feminine supplies
- Disinfectant\*
- Household chlorine bleach\* - You can use bleach as a disinfectant (diluted nine parts water to one part bleach), or in an emergency you can also use it to treat water. Use 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Medicine dropper
- Important Family Documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container



# Train\ Practice your Plans

- Practice your plan with your family/ household
- House evacuation
- Communication
- Update your plan



Reduce hazards through mitigation actions





# Questions



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