

A FIREFIGHTER'S GUIDE



TO

DISASTER PREPAREDNESS

BY

WILLIAM T EVERETT

P.O. Box 2468, Julian, Ca 92036 everett@escr.org

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INTRODUCTION

Shortly after I moved to the mountains of San Diego County (Julian, California) in 2002 I joined our local Volunteer Fire Department. Just in the nick of time, as a few months later the Pines Fire broke out. It became the largest fire in California history at the time, scorching several hundred thousand acres. The fire was mostly in the uninhabited back country and fewer than a dozen homes were lost. Nevertheless, Julian was threatened and evacuated. I took time off from the fire line to gather up as many important items as I could from my house. That was the first of three fire evacuations that I had to do in the coming months. I learned a lot.

In October 2003 the catastrophic Cedar Fire hit. Thousands of homes were lost, including mine. Because I was experienced in evacuations (and with the help of my brother and his wife), I was able to save 99% of the contents of my home that were irreplaceable, essential, and were keepsakes. Only two pickup truck loads... but made my recovery vastly easier and more comfortable.

In the following years we were again threatened with fire (Witch Fire) but this time I elected to stay put. I felt comfortable with my firefighting experience that I would be safe and could effectively protect my house. Then, in 2009 a massive snow storm hit, the power was out for three days, and the roads impassable. By now I knew enough, and had prepared enough, to weather the storms comfortably.

The purpose of this guide is to share what I have learned with friends and family. There is no reason you have to learn these things the hard way as I did. Not everything in this guide applies to every disaster, but large portions of this guide will likely be useful no matter what the disaster.

There is something in human nature that makes it difficult to contemplate disaster when it applies to you personally. We watch disasters on television frequently, which to a point desensitizes us. It is something that happens to other people but not us. There is a profound sense that "it will never happen to me." Even firefighters often share that sentiment. However, what may be a little discomfort in pondering disaster preparedness in advance can make the difference between total catastrophe and manageable inconvenience when faced with emergencies both small and large.

Many of the suggestions in the guide are inter-related. If you have a generator, for example, many problems can be solved. But be prepared to be independent for at least seven days. By then, the crisis should be over or emergency crews can reach you.

This guide is certainly not exhaustive, but it will tell you important things that you will not find elsewhere.

COMMUNICATIONS

Loss of communications on a small or large scale is often one of the first impacts of an emergency. Frequently accompanied by power outages, it may be just a loss of a land line or complete loss of cell phone coverage. Without power you may not have a working computer for Internet access. Smart phones are linked through cellular systems, and when they crash everything goes away. It pays to consider a total loss of communications.

The only sure solution for total communication loss is a satellite telephone. If you have a way to keep it charged, at least you can relay information to emergency services or distant friends and family. You can purchase or lease a satellite phone for less than \$800 and pre-purchase minutes. Sometimes there is no monthly service charge, making it a manageable expense as a sort of insurance policy.

If you have land line telephone service make sure that you have at least one hard-wired phone in you house. You can get them for less than \$10 at many stores. When the power goes out, your wireless portable phone will be immediately useless. Unless telephone wires are down, however, the land line may still be functioning. (See the evacuation section below for another good reason to have a land line.)

Not having phone communications is one of the most disconcerting aspects of any disaster. You may not know the status or whereabouts of friends and family, and they will not know yours. One tried and true method of dealing with this is for everyone to have a designated contact person so far away from everyone that the chances of them also being caught in the disaster are slim. This needs to be pre-arranged, and everyone needs to have that contact telephone number on their person at all times. On your cell phone is a reasonable place to store the number (even if there is no cell service), but make sure to write the number down before your battery dies. When some form of telephone service is re-established, you have the contact person to act as a communications hub if needed.

If there is no phone service but you can still get on the Internet, try email or Skype first but also Facebook and Twitter are tremendous tools for communication. Obviously, you need to set these up in advance. Give some trusted folks your password so they can easily inform your network of friends and family of your status if you can't access the Internet.

A battery-powered radio is a must, so that you can hear news and other important information. If you really want to know what is going on have a battery-powered police/fire scanner. Radio Shack has several kinds. Have lots of batteries on hand.

EVACUATION

The authorities don't want you to know this, but there is no such thing as a mandatory evacuation. If you are on your own property you have the right to remain. But take one step off your property and they can prevent you from going back. Even if a police car stops in front of your home, don't step up to his car if you really want to remain.

Of course, it may be a really good idea to evacuate. It depends on the nature and threat of the disaster, your particular circumstances, your confidence, and how well prepared you are.

Pre-Evacuation Considerations

You should always be prepared for the possibility that you will evacuate. The first time I evacuated I got to a safe spot and suddenly remembered numerous items that I should have taken. I also took several things that I should not have, e.g., easily replaceable items.

Everyone knows the usual items to take. Family photos, financial records, medications, pets, etc. Do you know where everything is that you need to take? Are these items too scattered? Believe me, in the heat of the moment your brain can freeze. And you may have only moments to find and load everything. There is no substitute for a printed list of important items including their locations in your home. Then you have only one thing to remember. I have a small external hard drive for my computer that I daily back up. Just grab that. You don't need the monitor, keyboard, etc. Save that room for other items. Make sure that important mementos and keepsakes are on the list. Everyone's list will be different. The key is to give it careful prior thought. Look carefully around your home and think about what you would need or want to take. A dry run is not a bad idea. If you do make one, you will learn lots.

Should you be so unfortunate as to lose your house, the insurance people (who, by the way, are not your friends) will require you to make a list of every single item in your house. You will also have to specify when you bought the item. If it's not on the list, they will not replace it. They will not just write you a check for the full amount of your contents coverage. They will look at the list, depreciate everything, then they write the check. Anything you can't remember will not be compensated. The average household has 11,000 items. How good is your memory? I'm not suggesting that you make a list of everything in your house, but here is a suggestion. Take a digital camera and photograph the house, inside and out. Open closets and drawers, cupboards, sheds, everything! If you end up with over 100 photos then you are on the right track. Burn these photos onto a CD or flash drive and mail it to a friend, put it in a safety deposit box, or otherwise keep it somewhere safe outside your home.

Finally, there are a few prudent steps that you can take before you leave. If fire is threatening, remove all flammable items near your house, especially under the eaves. Close all windows and doors. Even if the house does not burn down, smoke can ruin everything in your home. Open all drapes, shutters, and blinds and keep them away from the windows. For around \$300 you can purchase a home fire protection gel kit (need to purchase in advance, obviously). With a garden hose and the included adapter you can cover your home with fire retardant gel in less than 15 minutes. This stuff really works. I have one.

Before you leave, turn off the gas. Some people (including me) have a semi-permanent sprinkler mounted on the top of my roof. Although it is frowned on by fire authorities, turn it on and let it run. If you don't have one of these, turn off the water as well before you leave.

If you evacuate and there is still power and phone service, here is a neat tip: if you have an answering machine you can call it from wherever you have evacuated to, and if it answers, you will know your home is still there. Just because it does not answer, however, does not mean your house is lost. It may just be that the power went out.

Decision to Stay

As noted above, the decision to stay is based on your circumstances. In recent San Diego County fires, most of the fatalities were people in cars fleeing. You need to decide how safe staying will be, weighed against evacuation risks. What can you really do if you stay? How exposed is your house? Shake roof and wood siding? Stucco and tile roof? Have you cleared vegetation at least 100' from your house?

The attitudes of emergency services personnel are changing regarding evacuations. Vehicles can clog the roads and render them impassable to emergency vehicles. If the emergency is fire, you just might be able to save your home with a garden hose. Better yet, if you have a pool you can buy a gas-operated pump (called a Flotopump) that will deliver over 100 gallons a minute. That would certainly do the job. If your house is surrounded by dense vegetation, you probably should leave. Fire crews may defend your home, if they feel safe doing so. If there is too much dense vegetation around your house they will move on to defend other, less risky homes. Fire crews will also evaluate how quickly and easily they can escape if necessary. Narrow, long, steep overgrown driveway? There are only so many fire crews, so don't count on them saving your bacon.

If you decide to stay, try and let someone you know where you are and what your plans are. How many people are with you? Who is your contact person and what is their phone number? Again, if fire threatens, remove all flammable materials away from the house. (If you do not have water pressure, you should

not stay). Cover attic and eave vents. If you have trees or large shrubs near your house, dropping them with a chain saw might be prudent. If you have water pressure, wet down the house and surrounding area. What is most likely to kill you (and firefighters) is radiant heat, not smoke or flames. If a wall of flame appears go inside your house. Houses do not burn down instantly. You will almost certainly have enough time for the immense burst of radiant heat to die down before you are in danger inside the house. Another approach, if radiant heat is not a threat, is to find a way to run into the already burned area, if you can do so with less risk. Both these approaches are standard firefighter tactics.

How well prepared you are will be a huge factor in deciding whether to evacuate or not.

UTILITY OUTAGES

Losing power is the most likely form of inconvenience you will experience. It makes sense to have several flashlights (not the rechargeable type), battery powered camp lanterns, candles, oil lamps, matches or lighters, a radio, and lots and lots of batteries. A head lamp will be super handy. Some things, like cell phones, you can charge in your vehicle. But don't let your vehicle battery die, or run out of gas keeping the battery charged. A nifty and useful item is a portable car jump-starting device. Most of these (which sell for under a hundred dollars) have both a 12 volt and some even a 110 volt outlet. You may not be able to run larger equipment off it, but for cell phones and small appliances it can work well. You can also recharge these devices via your car cigarette lighter.

Having a portable generator can make life vastly easier. To choose the right size generator, you need to assess what devices you want to power. This often includes lights and a refrigerator. If you have satellite television, it will work well if you get power to both the receiver and television.

The smallest generator you should get should be no less than 1850 watts. To power your entire house (except electric water heater) typically takes around 7000 watts. Some people have installed a bypass switch at their main electrical panel. Simply plug your generator into this and you are set. Be aware that powering your house from a generator without one of these bypass switches poses a severe danger to crews working to restore power, by feeding electricity back into the system.

I have settled for a 4500 watt generator. With it I can run most of my household appliances except the electric water heater. You will need LOTS of extension cords and multi-outlets. Coffee makers work fine on small generators. The generator should be far enough away from your house to eliminate the carbon monoxide danger. DO NOT run it in a garage or other confined space.

If you have a generator run it periodically to be certain it is in working condition. Keep it full of fuel and use fuel stabilizer. The larger the generator, the more fuel you will need to keep on hand. Store fuel carefully and occasionally cycle it out and replace it. If you have a larger generator, you may need up to 30+ gallons of back-up fuel. By the way, most cars now have a baffle that prevents gas from being siphoned. Your stored fuel can also be used in your vehicle, as gas stations cannot pump without power.

Just because the power goes out does not necessarily mean that you will not have water. But if the water does go out you will have a new set of problems. First of all, be sure that you have several cases of bottled drinking water on hand at all times. The first inconvenience you will notice is that your toilets will not work.

I have filled several 30 gallon plastic drums with water. Not only can you use this water for toilets, but with simple purification (bleach, boiling, filtering, etc.) it can be a drinking water source, for washing dishes or yourself, etc.

If your home runs on propane you may be in luck. Appliances like stoves and water heaters may work when there is no power. If they require electric igniters be careful to shut off pilot lights.

Of course, a fireplace with plenty of wood can supply heat and light as well as be a cooking option.

FOOD AND COOKING

It is not a bad idea to have two weeks of non-perishable food on hand. There are lots of options. Canned goods (have a can opener), dry goods, freeze-dried foods, MRE's (Meals Ready to Eat), powdered milk, rice and beans, peanut butter, and beverages that do not require refrigeration are all good ideas. If you have a generator for your refrigerator and enough fuel, frozen food is an option. Don't forget pet food for your furry friends. A couple bottles of wine and/or beer can make your stay much more tolerable.

If you need to cook, you will also likely need water (See above). If you have a propane stove in your kitchen you are in high cotton. If you don't, a camp stove (with plenty of fuel) will work fine. You barbeque is another option. Many propane barbeques now have side burners. Be sure to have at least two full propane tanks on hand at all times. Have lots of charcoal if that's what you need. If you have a generator, get an electric hot plate. They are less than \$20 and are sold in many places. Your average hot plate uses about 1000 watts, so keep that in mind.

MISCELLANEOUS

Here are a few items that are found in most disaster preparedness guides:

- If you evacuate, have credits cards and CASH
- Always have a one month supply of medications on hand
- Have several fire extinguishers around the house
- Have a good first aid kit and know how to use it
- Keep all your financial and insurance records in one place
- Use camping gear as necessary if you have it
- Take your phone/address book if you evacuate
- Take your passport, wills, deeds, etc.
- Sanitary supplies as necessary

As you have likely gleaned from this guide, it's all about advance preparation. It really does not take much time or expense to be fully prepared.