What You Need To Do To Prepare To Survive

By Aaron Simons

Hello. My name is Aaron Simons and I wrote this essay to inform Regional Center clients about what you need to do to prepare for an emergency or survival situation. I grew up in McCloud and I'm an experienced outdoorsman, hunter, and fisherman having gone backpacking into wilderness areas and hiking into many difficult to reach hike in only places to go fishing and camping. I've also done lots of carpentry and remodeling. In McCloud, it snows more than anywhere else in Northern California so I know A LOT about dealing with heavy snow. I did lots of heavy manual labor, shoveled several feet of snow at a time, and split and stacked firewood using a splitting maul so I know a lot about dealing with tough situations. I've seen people in Redding panic over a few inches of snow and yet two feet of snow for me is *nothing*!

The ONE event where I learned the MOST about dealing with worst case scenarios was an ENORMOUS snowstorm that took place over New Year's 1992-1993. It started out as a fairly heavy snowstorm that came in a few days after Christmas and things became difficult, but it wasn't anything my family and I couldn't handle over the first three days. We got about three and a half feet of snow with off and on power outages…that is until the main brunt of the storm hit! Power was knocked out for three days and we got an additional three and a half feet of snow! I'd heard about McCloud getting six feet of snow in prior decades but the previous six years, 1986-1992, had been the WORST drought in California history and I never thought I'd get to see six feet of snow. The town was LITERALLY buried! It was literally like a war keeping the trenches to the woodpile and driveway shoveled out! My brother, dad, and I were constantly shoveling snow trying to keep up with it! The snowplows ran out of gas just trying to get to us! For a time we were completely cut off from the rest of the world! Fortunately, the phones, which didn't require power, still worked. It turned out, at the time, to be the third heaviest snowstorm in McCloud history! A foot of snow translates into an inch of rain so we got the equivalent of seven inches of rain from that ONE storm! The heaviest snowstorm was in February 1959 where McCloud got **12 FEET OF SNOW!** I found out that same storm set a world record at the old **Mt Shasta Ski Bowl**, which is on the west side above Mt Shasta City and was destroyed by an avalanche in 1978, for the most snow in a week, **15.75 Ft (189 In.)!!!** Don't confuse the old **Mt Shasta Ski Bowl** with the current **Mt. Shasta Board and Ski Park** which is in a completely different location and started in 1985.

At night there wasn't much we could do. We were like the people a century before sitting in the living room under candlelight and oil lamps. The TV didn't work, all we could do was play the board games *Life* and *Sorry*. I had to use a flashlight to find my way to my room to go to bed, but my family and I thought of it as an adventure. After the power finally came on and the streets were plowed I was able to go out and see the town. There were snow berms on the sides of the streets 15 feet high that when iced up was like digging through a wall of concrete! My grandparents owned the big Mercantile Building and we had to get up on the roof and shovel it off. I later heard about how many people had gotten rid of their woodstoves for monitor heaters, which burn kerosene and work fine…that is until the power goes out. Others didn't have a propane stove like we did and couldn't cook food. We got off easy because we had something called redundancy, meaning that we had systems that didn't require electricity. We had to use matches to light the propane stove, but at least IT WAS working, and a woodstove. We later got a monitor heater…but supplemented it at night with the woodstove.

Those six days, that winter, and subsequent experiences over the last 30 years, taught me A LOT about worst case scenarios. It toughened me up and in 1996 I bought a heavy duty insulated *Gore-Tex* parka that served me faithfully for 15 years, which at the time cost $150. *Gore-Tex* is a special, and expensive, material that is used in coats, parkas, bibs, rain pants, hats, footwear, and other kinds of outer garments. It is waterproof but breathable. They do make other less expensive but still pricey *Gore-Tex* garments that are uninsulated. It also protects you from the wind. Believe me, *Gore-Tex*, and other waterproof but breathable materials, such as *Dry Plus*, is worth its weight in GOLD! If you truly want to protect yourself from the cold, rain, and snow during the wet season you want a *Gore-Tex* or *Dry Plus* coat or parka and pants or bibs depending on how cold and bad the weather where you live gets. They also make *Gore-Tex* gloves which are just as valuable too and you should keep them in the pockets of your coat or parka. You can buy these garments from **Bass Pro Shops**, **Cabela's**, **LL Bean**, and **Sportsman's Warehouse**, but you can also find them on **Ebay**.

One thing you MUST remember is that if you buy these garments you can't use ordinary laundry detergent to wash them. There are special treatment chemicals you MUST use every year in order to wash, treat, and restore their waterproof and breathable qualities. The chemicals are made by a company called **Nikwax**. What you need are *Tech Wash*, that has a green lid and washes the garment, and *TX.Direct Wash In*, that has a purple lid and restores its waterproof and breathable qualities. It can be done in a washing machine, but each of the chemicals requires a separate wash cycle. Then it needs to be low heat tumble dried and then hung to finish drying. Do this in the summer

before the fall and winter so they're ready beforehand. These chemicals can be ordered from places like **Sportsman's Warehouse, Bass Pro Shops**, and **Cabela's**. It's important because it's part of caring for and maintaining your gear so it takes care of you.

Now I'm sure many of you use umbrellas, but in high winds ordinary store bought umbrellas just aren't up to the job. I've seen them get blown backward, have pieces of the metal frame break and get torn apart. There are special, and expensive, kinds of umbrellas that are designed to take high winds, but they do NOTHING to protect your lower body and legs from windblown rain and the cold. Umbrellas work *most* of the time in ordinary rain, but there are EXTREME weather events, such as thunderstorms and heavy winter storms, where they are just NOT up to the task! If you want to be fully protected from the snow and rain you need a full body *Gore-Tex* rain suit like what I have. Believe me, I know what I'm talking about having worked and walked out in the driving snow and rain before.

Now there have been times where I've been caught out walking by freak rain events. I bought a better quality camouflage rain poncho that stays inside a stuff sack that I carry in my backpack. It has come in handy many times so that's why it's a good idea to keep a rain poncho in your backpack or purse. But don't get some cheap plastic one. Those things, while compact and store well, can rip and fall apart easily especially if you're in an environment where there's stuff it can get caught on. You want to get one that's more solidly built such as mine that's made of rip stop nylon. You can actually make a makeshift rain poncho out of a large heavy duty black plastic garbage bag by cutting a hole in the center of the bottom large enough for you to get your head through and then cut two smaller holes in the sides for you to stick your arms out. Your rain poncho should be AT LEAST as solid as a heavy duty large high quality black plastic garbage bag. And another thing to bear in mind is that once you remove the rain poncho from its packaging you're NEVER going to be able to refold it and get it back into the package. You'll need something bigger to repack it into unless it's like my poncho that came with a stuff sack it fits back into. But before repacking you want to hang it so it can dry out so that it won't get moldy, start stinking, and become something you don't want to have. Like all things you own, you need to take care of it.

Another thing that's important to remember during the cold parts of the year is that you need to protect your ears, especially on windy days. I've been out in the cold while it was windy and if it gets in your ears, it hurts! You want a pair of ear muffs, a hat with flaps that will fold down over your ears, a stocking cap that will go over your baseball cap if you're wearing one, or a hoodie. I like wearing a big brown wide brimmed oilskin hat during the winter and until I got a pair of ear muffs protecting my ears was difficult. I did use a hoodie a few times. I also have a kind of head band that goes over my ears and around my head. Believe me, protecting your head and especially your ears from the cold can save you from a lot of misery.

Where I grew up, the Mt Shasta area where during the fall and winter it rains and snows heavily, as a necessity, I wore heavy rubber boots. I also used them in places like Lower Klamath and Tule Lake National Wildlife Refuges where I went hunting and dealt with muddy, marshy environments where it got extremely cold, snowy, and windy. I also used them when I worked at the **Mt Shasta Board and Ski Park**. If you're dealing with snow and constantly wet environments you want to have a good pair of heavy duty rubber snow boots. BELIEVE ME, tennis shoes are thee absolute WORST things to wear in the snow and/or a cold, wet environment. First your feet get wet, then they get cold, they stay cold and they WILL NOT warm up! The only thing you can do is get out of that environment, get those shoes and socks OFF, and let your feet dry and warm up. Same goes with your clothes. If you wear cotton and it gets wet it WILL NOT dry out, especially in the cold. NOTHING is worse than wet jeans. If you're going to be in a wet environment you MUST protect your regular clothing from getting wet. The most important rule is to avoid sweating and keep your body and feet dry or you're going to be EXTREMELY miserable. People living in the valley have it EASY compared to people who live in the mountains. McCloud is a small town so we don't have fast food or places like **Wal-Mart**. We had to be self-reliant and tough it out through heavy snow and rain. If we couldn't find what we needed at places like **Rite-Aid**, **Sportsman's Den**, or **The Fifth Season** in Mt. Shasta or **Wal-Mart** or **Don's Sporting Goods** in Yreka we had to either make a two hour round trip drive down to Redding, or order through a catalog or website.

In January 1995 an IMMEMSE rainstorm broke a record that had stood since 1978 for the most rain in a year in Siskiyou County. Over 22 inches of rain fell over the course of a week and a half. There were also high winds in that storm. A 108 MPH gust was recorded down the street from College of the Siskiyous in Weed! Fortunately, we didn't have to deal with any power outages. That storm flooded the Eel River canyon and caused the abandonment of the railroad that went through it. Later in March another big rainstorm came in. March-May 2006, two months of almost constant rain. In May 1990, more than 10" of rain fell breaking a record that had stood since 1902. In April 1940, during the construction of Shasta Dam, 9.2" fell in 24 hours! So that should show you how bad storms, extreme rain events, and the weather can get!

Now in places like Redding and Chico, where it rarely snows, there isn't a need for a pair of heavy duty rubber snow boots…but you do need something more water resistant. I live in Redding now and have had to walk through

some especially HEAVY rain events. You have to be careful because broken branches, palm fronds, and other kinds of debris can fall or get blown around in those kinds of storms. Avoid big puddles and try jumping over gutters and street drains. Rubber snow boots are overkill, but I got a new pair anyway, just in case that cost $100. But what I also have is a pair of heavy duty leather hiking boots. While not waterproof, they're far more water resistant than tennis shoes that, just like in the snow, are the WORST things you can wear in heavy rain. But don't get a cheap pair of hiking boots made out of Cordura nylon from some halfhearted shoe or sporting goods store. You want to go to a dedicated specialty sporting goods store like **Sportsman's Warehouse**, **Big 5**, or **Dick's Sporting Goods** and get a decent pair of hiking boots made of leather that cost about $100. Believe me they're worth it, you get what you pay for, especially if you're going to be doing a lot of walking or spending time outdoors. A good pair of work boots will work too. If you can get a pair that fully encloses your ankles and comes 6-10 In. up your legs is even better. They can also double as work boots.

But the last thing you want is a loose fitting pair of boots that feel like a pair of tennis shoes. You want a good snug fit, but they don't have to be so snug that it's cutting off circulation! When you tie them you want to cinch them down and fit securely to your feet with little to no movement. Depending on how they fit, you can go with your normal size but you may need to go a size or half a size smaller. If you have a lot of movement in a pair of loose fitting boots you can get blisters on your feet and toes. I've gotten HUGE blisters before and believe me they hurt. That's why you want a good snug fit. You should also wear two light pairs of socks rather than one heavy pair. An inner liner and your regular socks over them. I have some light silk socks I use as my inner liner when I go hiking. Getting blisters can be very strange. I've been out backpacking and hiking before and not gotten any and yet I've been out walking around doing errands and one time I got a blister the size of a quarter on my toe! Another time I had one form under a toe nail and I lost the nail! In order to stop blisters from getting bigger you need to take a small pair of scissors or something and break them. They fill with fluid and you need to let it drain out. Don't worry about it hurting more because it hurts anyway and that's the way you stop them from getting bigger. If you have a wear spot where you frequently get blisters you can prevent them by putting a first aid product called **Moleskin** over the wear spot before you start walking. You can get it from any First Aid supply section of stores like **Rite-Aid** or **Walgreens**. What you do is you cut out a piece about the same size as the blisters you get, peel off the backing, and cover the wear spot. It prevents the rubbing that causes blisters.

Don't have an "*It can never happen to me*," attitude. This isn't the sort of thing you can be stubborn about. One important lesson from that 1993 snowstorm was some peoples' not having any redundancy, meaning not having a backup system that isn't dependent on electricity. Some of the places I've lived in before have had electric stoves while others had gas stoves. I've been lucky when it comes to survival situations. In January 2008 I was in Chico when a heavy rain/wind storm hit and power was knocked out for two days. The only thing I could think to do was to read a book. During the day I had light. I had two flashlights, a little *Mini-Mag Light* and a much bigger *Mag Light*. The *Mini-Mag Light* used two AA batteries and conventional bulbs, but wasn't very powerful. The much bigger *Mag Light* used two D batteries and was much more powerful, but it could only shine in one direction. It had a conventional bulb when I bought it, but a few years earlier I replaced it with a new LED bulb, which stands for Light Emitting Diode, that are MUCH brighter and use less power. In order to spread out the light so I could read at night I took the top off the *Mag Light* exposing the bulb and turning it into a makeshift lantern. I was able to cradle the flashlight with my neck and read.

I was also lucky in that my place had a gas stove and heater and I was able to stay warm and cook food. If I'd been in a place with an electric stove I would've had to eat cold food. After that I bought a small portable propane camp stove, just in case and if I wanted to go camping. Bear in mind that if you're without power and using a portable propane camp stove they're made to be used outside because of the fumes. Another thing that works is *Sterno*, which is a type of gelled alcohol in small cans with lids, but be careful while prying the lids off so they don't spill. The company also makes small folding aluminum *Sterno Stoves* that you can heat cans of soup or boil water on and are intended for camping. Bear in mind that the cans get very hot and you put them out by putting the lid back on so you need to use a small pair of pliers to avoid getting burned. And you need to let them cool off before handling them and they come with a little indicator on the side that starts blue and turns white when it's hot. You have to wait until it turns blue to know when it's cool enough to touch. I don't know how well they work inside or how bad the fumes are, but you should use them on your stove and have plenty of ventilation. Just like the propane stove they're intended for camping and outdoors.

Temporary power outages happen year round and usually last, at most, a few hours. But some power outages, especially during the winter, can last for DAYS! In January 2019 there was a storm in Redding where we got six inches of snow. Over the years I'd VASTLY expanded my inventory of survival gear. I'd bought an LED headlamp, an LED lantern, and a survival radio that has an LED light, AM/FM radio that can also tune into the National Weather Radio, an extendable antenna, and a solar cell with a hand crank for recharging. In that snowstorm power

went out all over Redding. It was quickly restored…but only to certain areas. What surprised me was that my grandmother's house, which was one block over, power was restored within hours, but nothing happened at my place. Fortunately, I was able to listen to the radio thanks to my survival radio. It kept running out of power, but I would turn the crank for about a minute to recharge it that would last about 20 minutes. Believe me, it was MUCH better than sitting in silence like I did in 2008. At night I got out my LED lantern, which used three D batteries and has three power settings. I kept it on the lowest setting and, while I couldn't see everything, I could see what I needed to. And I had a gas stove so I was better off than people with electric stoves. I got along MUCH better than I did in 2008.

What confounded me was how long it took for the power on my block to come on. In the storm of 1993 we were without power for three days, it snowed almost the whole time, and it was a FAR more EXTREME event! In 2019 the storm lasted less than 12 hours but…it took FOUR DAYS before my power finally come on! I grew up in the 80's and early 90's, back before all the technology we have today. I can live without technology. I can get along without smartphones and things people today take for granted. People today are so addicted to technology that when the system breaks down, THEY break down! They CANNOT live without technology! My family didn't get our first cell phone until 1995. I didn't get MY first cell phone until 2011 and all I wanted was a simple cell phone. It was for emergencies only in case I needed to be in contact with my family.

The events I've described were learning experiences. I've continued preparing for potential WORST CASE SCENARIOS using my experience in 1993 as the benchmark. The events I described where the power went out for days, while inconvenient, are things that DO happen and people, including Regional Center clients, need to prepare for them. With weather related events, if you watch the news, you can get advanced warning and prepare for them. I got the gear I described because I wanted to be prepared and in case I get a chance to go hiking or camping again. I've bought books and DVDs on survival so I could learn more about this kind of stuff. Several years ago one of my uncles told me about a big snowstorm where McCloud was without power for a WEEK! One of the hosts in one of my survival DVDs described how one of his friends who lives in the Midwest got hit by a severe ice storm and power wasn't restored for **FIVE WEEKS!!!** He said that, while inconvenient, it wasn't the end of the world. Fortunately, she had made preparations for such an event. After Hurricane Katrina, New Orleans was almost completely **FLOODED** and it took **DAYS** for rescue personnel to bring relief supplies because of the **COMPLETE** and **TOTAL DEVASTATION!!!** It was **MONTHS** before the levies were repaired, the floodwater pumped out, power restored, and it took **YEARS for the city to recover after the most EXPENSIVE natural disaster in US history!!! Over $125 BILLION in damage and over 1,800 DEAD…but it could've been much worse!!! TRY IMAGINING** an event where the **ENTIRE SYSTEM BREAKS DOWN** and we're without power and utilities for **MONTHS OR YEARS!!!**

It helps if you talk this stuff over with your Service Coordinator and/or worker so you can learn more about preparing for the situations like what I've described. The FIRST thing you need to do to prepare for an extended power outage or survival situation is making an assessment of what the place you live in is like, meaning you need to find out what kind of stove and heater you have and determine what kind of situation you'd be in if the power went out for an extended period of time. Redundancy is VERY important! If you live in a place that has an electric stove and the power goes out you WON'T BE ABLE TO COOK FOOD. If you live off of Ramen Soup and Macaroni and Cheese you're in trouble because you CAN'T heat the water in order to cook the noodles! I like eating frozen meals, but if the power goes out…

A: You can't run the microwave to cook them.
B: You MUST NOT open the refrigerator!!!

Refrigerators are well insulated and if the power is out they can retain their coolness for a long time…but if you open them you're releasing the coolness and there's NO WAY the refrigerator can replace it until the power comes back on. So DO NOT TOUCH the refrigerator until the power comes back on and then give it AT LEAST an HOUR to rebuild its coolness. That means you need a BACKUP of canned or dehydrated food in your cupboard or pantry to prepare for a situation like what I'm describing. UNLESS you have a gas stove and can heat your food you have to be prepared for the reality of eating cold food! Hot plates require electricity. I have a gas stove that has a pilot light that sometimes goes out and I don't need matches to light it, but other gas stoves, like the one in my old house in McCloud, have an electric lighter that lights the burner. If the power is out you may need to use a match to light it but it's better to use a lighter but don't use a *Bic* style cigarette lighter. To be safer, get one of those extended barbecue style lighters with a handle.

The survival DVDs I have said that you should buy things like canned or dehydrated foods you like and then set them aside in your cupboard or pantry and keep them put away for EMERGENCIES ONLY. Things like canned

soups, stews, and other non-perishable foods for dinner and things like canned fruits like peaches and pineapples or whatever you like that's non-perishable for breakfast. The government recommends that you set aside three days' worth of food to prepare for an emergency. It's better to set aside AT LEAST A WEEK'S worth of food for you and everyone you're responsible for and not touch it unless you have an emergency where you need it such as the power going out for an extended period of time. The survival DVDs recommend TWO WEEKS. And if you have a pet you need to have food to keep them going too. Some canned foods come with pull tabs making it easy to open…but most don't. If you don't have a can opener, get one…but don't get some cheap one that can make it tricky to open. Get a good one that will last and make it easier to open. The kind of can opener you want will get a firm grip on the can and has a rotating blade that slices through the top, flips open all the way, and is very strong and sturdy. They do make electric can openers, my mother had one when I was real young, but don't buy one. I ended up with 2 good ones, plus another 2 on my *Swiss Army Knife* and *Leatherman Tool*. My can opener has lasted for more than 20 years! One thing to remember when it comes to canned food is that while they WILL last for years…they do have expiration dates. So check them and if the expiration date is approaching eat the food and replace it. My grandmother sometimes stored cans WELL past their expiration and I discovered that the hard way.

Now I know the idea of eating cold food sounds bad…BUT it's the reality of the situation. Like the power outage it's a temporary inconvenience and not the end of the world. You can get along without warm food for the duration. The events I described where the power was out for days are extreme examples…but they do happen and the reality of the situation. There have been times where **ENORMOUS** parts of the country have had **HUGE BLACKOUTS** lasting **HOURS** where **WHOLE SYSTEMS** failed like the mega blackout in the summer of 2003! It happened when heavily burdened high tension powerlines started sagging and eventually touched some branches that should've been cut down. It set off a chain reaction of safety systems that kept shutting down and cascaded around affecting nearly ⅓ of the eastern part of the country! The power grid can be very vulnerable. It took hours for power to be restored. Solar storms from the sun have caused mega blackouts in Canada before. In the 2000's, because of corruption on the part of power companies refusing to send power to California, there were rolling blackouts all over the state! Fortunately, our part of Northern California wasn't affected.

So, depending on the kind of food that you normally buy, you should be prepared for system breakdowns because you never know WHAT might happen. A terrorist act, sabotage, vandalism, equipment breakdowns, maintenance issues, high winds damaging powerlines, trees falling on powerlines, cars crashing into telephone poles, etc. are all examples of what can happen and cause things to breakdown. People releasing Mylar balloons have caused power outages before because they've run into powerlines. Squirrels and birds up on powerlines have caused power outages. So don't panic if the power goes out for extended periods. Sometimes you can have something called a "brown out" which is where there's a drain on the normal amount of power being sent. Your lights will dim and you will need to lighten your burden. You need to turn off all unnecessary electronics, such as lights in rooms you're not using, outside lights, stereos, and other things that are unessential.

Another thing you need to check is what kind of heater you have. If you have a gas heater you don't have to worry, but you need to learn how to use it. The place I was in 2006-2008 had a gas heater, but EVERY DAY the pilot light would go out. At first I had to keep calling PG&E to relight it until they showed me how to do it using one of those extended barbecue style lighters which I had to do EVERY NIGHT! There was a woman in the same large house that was divided off into apartments I was in who had the same problem and I had to show her how to do it. And there was no way to regulate the temperature so when it started to get too warm I had to shut it off until it got too cold and start it up again. The place I just moved out of has a gas heater, but I was told it's obsolete. Fortunately, the pilot light stays on after it's lit and it does regulate itself. But if your place has an electric heater or thermostat, you're in trouble if the power goes out. One thing you need to remember if you have an air vent for a thermostat is that you have to replace the air filter every three months. If you don't it's hard on the thermostat. It's a good idea anyway, but you will need to have warm clothes and thermal underwear to wear to keep you warm if your heater isn't working. There are many different kinds of thermal underwear to choose from and you don't have to pay a lot for them. Remember, it's a temporary inconvenience and you can get along with some discomfort for a few hours or days.

I imagine that a lot of you use electric blankets or heating pads. But during power outages electric blankets are useless. You need to give them up. If you get enough blankets on your bed during the winter you can keep yourself warm like I do. Get a good comforter and some wool or fleece blankets to trap more of your body heat. Get a good bedspread and wear some thermal underwear, a heavy pair of socks, and even a stocking cap. The more insulated you are, even if you're small and thin, the better. When I was in McCloud, during the winter, I had up to seven layers of blankets on my bed to keep me warm. And giving up the electric blanket will save on utility bills and you can save yourself a lot of misery.

One wise thing to do if you're going to prepare for an extended power outage is to have some books and/or magazines to read or some small board games, puzzles, or something you can do to pass the time. If the power is out and you have nothing to do it can get VERY boring, believe me. Another thing that's good to have are small battery operated video games. I've had these little video games that require one AA battery called **Pocket Poker** that can switch between Deuces and Draw Poker. It's a great way to pass the time and learn how to play the game. There are many other games you can choose from such as 21 or Blackjack, slot machines, Backgammon, etc. Without a TV the only other way you may have to get entertainment to avoid boredom is a survival radio so it helps to have some of these things or a hobby but use your cell or smartphone ONLY when necessary to avoid running down the battery because you don't know when you'll be able to recharge it. Conserving power is VERY important. Save it for emergencies only. You may be out of communication for the duration. And if the power is out cellular service may be down too. Don't let yourself get addicted to it. Use it only to occasionally check what the situation is…IF you can get internet or cell service.

You can't be thick headed and stick to what you're familiar with or want when it comes to this sort of thing. In a survival situation things like electric blankets are useless. You need to learn to give up some things and compromise somewhat in order to prepare. Some of your habits or things you enjoy doing can be a kind of addiction. Giving some of your habits or things you think you can't live without, at least temporarily, can help you save money so you can prepare. Don't think that because you live in a place like Redding or Chico you're immune to disasters because no matter where you go you're bound to be hit by a survival situation of some kind at one time or another. Don't act like a lot of people and think that you know everything. Don't let yourself get so addicted to something that when the system breaks down you can't function. They may be convenient when things are normal but when things are not normal that convenience goes away. You can use a smart phone or something to get an update on the situation, but use it only sparingly. You need learn to conserve your resources.

Power outages can sometimes happen during the summer too, which means you'll be without air conditioning or a swamp cooler. It's not the end of the world. The place I was in from 2006-2008 had NO air conditioning so all I could do was sit in front of a fan. People a century ago didn't have air conditioning and had to live through 110°+ temperatures EVERY summer! So if you have to sweat it out for a few hours be smart and stay inside where it's cooler. Don't go outside unless you have to. Drink plenty of water, but avoid alcohol. Buy some **Gatorade** and keep it handy in case you need to restore your electrolytes. Becoming dehydrated is a very unpleasant feeling. I once went to the hospital because I was feeling strange. I was told that I was dehydrated and, despite my drinking plenty of water, I didn't start to feel normal until my brother gave me an electrolyte tablet in a water bottle that restored my electrolytes. If you can't get **Gatorade** you can buy electrolyte tablets from places like **rei.com**. One thing that can happen if you run out of water is you can become what's called cottonmouth. I had that happen once when I ran out of water while hiking. You become dehydrated and then your mouth becomes all sticky. It's a very unpleasant feeling so you want to keep plenty of water with you. The only way to get rid of it is to drink plenty of water.

Another thing that can go wrong is problems with the water treatment system. I've seen it before on the news where they'll announce that there's a problem with the tap water and a boil water order has been issued meaning that, for your own safety, you have to boil water for five minutes in order to make it safe to drink. Over New Year's 1996-1997 a HEAVY rain storm came over Northern California and Oregon and there was HEAVY flooding everywhere. Squaw Valley Creek, which flows through the east side of McCloud, flooded and damaged a water main. The Service District, the town's utility service, sent out cars with speakers on the roofs telling people that they needed to boil their water. Another time, when I was in Chico, we got the same kind of order. I like iced tea and I kept boiling water enough to fill my jug and made up some tea. But when I went to drink the stuff it didn't taste right. In 1993 there was RECORD flooding on the upper Mississippi River region. The City of Des Moines, Iowa's water treatment plant got flooded. Potable water had to be brought in and more than 100,000 people had to fill jugs in order to have drinking water. It took months before the water treatment plant was finally working again. So, just in case you get a boil water order, you should get a case or several jugs of bottled water and keep it put away for emergencies. One thing I bought, because I wanted to go hiking again, is a water filter which is intended for filtering water from back country lakes and streams, but it CAN be used to filter water if you get a boil water order. They cost $80-$100 at places like **Sportsman's Warehouse** and are intended for hikers.

And for all you ladies out there, all of you require things like maxi pads, tampons, and other feminine related products. If there's a survival situation, you're stuck at home, and it's unsafe to go out and get more of your supply, you're in trouble. It's no different than stocking up on food and survival gear. You need to have a supply of this stuff available, just in case. You should buy two packs of each, then, when the first pack starts to run out, get another pack so you always have a full pack available in rotation if a problem occurs. And for everyone, same thing goes with stuff like toothpaste, toothbrushes, dental floss, toilet paper, paper towels, hand sanitizer, and stuff like that.

But don't panic buy like a lot of people did during Covid-19 and don't buy so much stuff that you become a hoarder. That's the LAST thing you want to be. Only get what you need and can store easily, and then buy in rotation.

Now, as I said, I invested in LED flashlights. Things like candles, oil lamps, and incense burners can cause fires. Some landlords, such as my old place, won't allow candles and oil lamps. One time someone using a candle they weren't supposed to have in a high rise dorm at Chico State set their room on fire! So you want some good LED flashlights. They're brighter, use less current and, while a little more expensive, they're cheaper in the long run. But don't buy some cheap junky plastic flashlight that's going to breakdown after a few months. I've seen some VERY gimmicky flashlights and other junk that aren't worth the material they're made out of. I've been told that the cheapest way to go in life is First Class. All GOOD flashlights are made of aluminum so avoid plastic and gimmicky flashlights. Buying something quality enough that it will last for years will pay off in the long run, believe me, especially if you take care of it. The most basic LED flashlight you can get is a *Mini-Mag Light*. They've been around for at least 35 years and the company that makes them, Made in USA, now makes LED versions and they use two AA batteries. They're made from aluminum, are very solidly built high quality items that you have to twist the front end to turn on and off and to focus the beam. Sometimes you have to check them because the front can get twisted and turn them on running down the batteries. With the newer ones, if you fool around with turning it on and off, it will start flashing like an SOS. I've had them last for years! They can come in a variety of colors and styles and you can even buy sheaths, attach them to your belt, and carry them around with you in case you need them like I do. But don't use the sheaths that come with them which are open. If you get a sheath, get one that completely covers them to avoid them getting turned on.

Another very useful flashlight made by the same company is an LED *Mag Light*. It uses two D batteries and has a button to turn on and off covered by rubber. Compared to the *Mini-Mag*, which is good for small jobs, the *Mag Light* is MUCH bigger, brighter, and you can see MUCH further. Like the *Mini-Mag* you can turn the front end and focus the beam. They come in a smaller variety of colors, made from aluminum, and are well built high quality items that will last for years. And if you have one they can also be a convenient club you can use for self-defense. The best place to find both the *Mini Mag Light* and the *Mag Light* is **Lowes**, but you can also find them at **Wal-Mart** and other places. Some LED flashlights are small and require only one AA battery. Sometimes with other LED flashlights you have to cycle through several modes in order to shut them off. Things like strobes, SOS, and multiple light levels are unnecessary. Stick to the basics.

Another type of LED flashlight you might have seen on TV in the past is the *TacLight*. It is like the *Mini-Mag* in that it is made of aluminum but it's more sophisticated. Some flashlights now, rather than using two AA batteries, have a little battery pack that comes out and requires three AAA batteries. It has a much wider lens shaped glass on the front and spreads the light out over a much wider area. But the front end is different from the one on the *Mag-Lights*. It slides forward and focuses the beam down to the point that it can be seen 2 ½ miles away! The on/off switch is on the back covered by rubber. Most are black, but I have an original *TacLight* that is red, which cycles through three light levels, strobe, and SOS before it shuts off. The design has become kind of generic because I also got a less sophisticated version that has only one light level and doesn't cycle through the other things like the original before shutting off. That's the kind of flashlight you want. The name has become kind of generic too because many small LED flashlights call themselves *TacLights*. But the one I described is what the original looks like. The new *TacLight* that I found online that the company now makes is called the *TacLight Max*. It's much bigger than the original and has multiple LEDs. It's a kind of small floodlight and overkill!

Another place you can go to for survival gear and LED lights is **Harbor Freight Tools**. They sell tools and other things like bulk batteries at a discount. Sometimes their ads come in the Sunday paper and mail and have coupons. You can find things like silver Mylar emergency blankets and other useful gear. Two great LED lights I've seen there is a red triangular light that has some red LEDs and white LEDs, a magnet, and a plastic hook. One thing to remember about red lights is that at night they won't diminish your night vision so you can see at night. White lights force your eyes to readjust and you loose your night vision. It takes 20 minutes of being in total darkness to fully develop your night vision. I don't know how it works, such as cycling through the different lights. The other is a rectangular blue light I have that has only white LEDs. There's a smaller light on the front end that works like a flashlight and the large front main floodlight. It has a magnet, plastic hook, and uses three AAA batteries. The outer cover is made of plastic, but they're not gimmicky. But you need a Phillips screwdriver to take out the three screws in the back to access the batteries.

One very useful piece of equipment to invest in is a survival radio. The one I have is about the smallest and cheapest you can get made by a company called **Eton**. You can buy bigger, more sophisticated survival radios, but they should ALL have the same set of features: an LED light, AM/FM radio that should also receive the National Weather Radio, an extendable antenna, and a solar cell with a hand crank for recharging. They shouldn't require batteries because they're supposed to have a built-in rechargeable battery. One important thing to remember is that if

you use the solar cell is it WILL NOT recharge in artificial light from light bulbs. It will ONLY recharge in sunlight. All the situations I described were weather related and you can get weather reports using your survival radio. It's important to stay informed. And if you can think of other items that might be useful, add it to your Survival Kit, but don't have so much gear that you can't lift it.

One flashlight I have is like the emergency radio. It has a hand crank that charges the built-in rechargeable battery and three LED lights. On the first click one LED will come on. Turn it off and turn it back on all three LEDs will come on. It doesn't require any batteries. The battery doesn't last long so you have to crank it for a minute to recharge it. Another very useful flashlight are LED headlamps that come in a variety of designs. The smallest and simplest are ones that will clip onto the brim of a hat. They have five LEDs, sometimes in multiple colors. More traditional headlamps have an elastic band that goes around your head and point downward thus freeing your hands so you can see what you're doing while you're working in the dark. The one I had in its normal position points forward but I could click it downward to position it however I needed it. It used two AA batteries and has multiple LEDs so it was very bright. They're very useful especially if you're trying to work, prepare food, or read in the dark.

The LED lantern I had, which is called *Streamlight The Siege*, is very useful at night so it helps to have one. Most are battery operated often using multiple D batteries. Efficiency is VERY important when it comes to using them. I bought mine from **Sportsman's Guide** but they're also available at **Sportsman's Warehouse** and other places. When I was using it in 2019 I didn't keep it on the highest setting. LEDs ARE efficient, but they won't last forever. On its highest setting it will last 24 hours, on medium 36 hours, and on the lowest 60 hours. With the control button you have to click it in rapid succession to put it on the setting you want and it glows green, yellow, and red indicating the battery power level depending on what setting it's on. I kept it on the lowest setting because I wanted to get the most out of the batteries. If you're concerned about not having enough light to see, don't worry. Your eyes will adjust to the lower light level and you will be able to see. You don't need enough light to see the way you do when the power is on. And if you're in the dark don't leave your flashlights on. It runs down the batteries which you might need later, even when using LEDs. Efficiency and conservation are very important. Don't let yourself become ignorant or arrogant about it. And don't think that you know better than I do. You need to conserve your batteries. If there's something to leave running it's the lantern on its lowest setting, depending what kind of lantern you have, which is designed to be left on for extended periods of time. Place it on top of a pile of boxes, a shelf, or TV so it's up high.

Another type of lantern I have is called the *Goal Zero Lighthouse 600* that I got from **Cabela's**, but also available at other places. It's different, and more expensive, from the *Streamlight* in that it has its own built in rechargeable battery. It's mostly green and has a hand crank on top to recharge with folding metal legs and a handle. For recharging it has a USB cord that wraps around and snaps into the lantern, but you need an adapter with an electrical plug in order to recharge it. It has a triangular red button that starts a rotating red light that goes around the top perimeter and four blue lights indicating its power level. It has a knob on the front where you control the light level between the front LEDs or both the front and back LEDs. On its highest setting with both front and back LEDs it will run for 2 ½ hours and 180 hours on its lowest. But on its highest setting with just the front LEDs it will run for 5 hours and 320 hours on its lowest. You'd probably want to run it about halfway in order to have more light to see and get more efficiency. They're both made of plastic, but that doesn't affect their quality. And what makes these electrical LED lanterns better than propane or white gas lanterns is they have no fuel so there's no risk of starting fires.

My mother showed me an LED lantern she has that she got from **Costco**. It's made by **Duracell** and twice the size of the *Streamlight*. It has three light settings and a flashing red light requiring four D batteries but has an internal rechargeable battery. It has a solar cell on top and a USB port for recharging using an adapter with an electrical plug. I don't know how the system works because I've never used the lantern. I've just looked at it and studied it.

Duracell has gotten into making rechargeable LED flashlights and floodlights too. One flashlight I got is made from aluminum and has a rechargeable battery that comes out and it has small port that with the included charging plug that at one end has a USB port that with an adapter you can plug into an electrical outlet. One thing I discovered on the flashlight itself is that about ¾ up there is rotating screw-like ring that when you turn it revealing a charging port so you don't have to take out the battery. The area around the on/off button has four green lights indicating the battery power level. Like the *TacLight* it has a slide on the front end so you can concentrate the light, just not to the *TacLight's* extent.

Another product made by **Duracell** is a kind of square shaped LED floodlight with a stand kind like a lantern. It has a main round center floodlight along with some smaller side lights that you have to cycle through in order to turn it off. There's a rubber flap on the back next to the on/off button that uses the same kind of charging port as the flashlight. It has four blue lights indicating the internal battery power level. When the battery power is low when you

try turning it on it will start flashing through the various lights before turning itself off. The only thing you can do is recharge it overnight.

Another kind of flashlight that I have is a shake light. Rather than being made of metal, shake lights are made of clear plastic so you can see inside. It has a coil of copper wire and a piece of metal in the bottom that slides up and down the center. What you do is shake it for a few seconds, the copper wire builds up an electrical charge, and you turn the LED light on. It doesn't require batteries and, while it won't stay on forever, it is useful if you don't want to spend a lot of money on batteries.

Another product if you can't afford any of the flashlights I mentioned or want an alternative are nontoxic glow sticks or chemlights. They are prepackaged plastic tubes with a seal at one end and what you do is you break them slightly, the two chemicals inside mix together but you might have to shake it a little to mix them faster, and they will glow for hours. They come in a variety of colors, are lightweight, will store for years, don't cost much, and are very useful to keep on hand, just in case. You can buy a case of them. I have a couple dozen and they don't require batteries.

Some newer, more powerful LED flashlights require newer kinds of specialized batteries that I've never seen and only heard of. There are types of LED flashlights that shine at 300 lumens and need special batteries in order to sustain them. The trend with those kinds of flashlights is away from conventional batteries, but you don't need those kinds of ultra bright flashlights for home or camp use. The thing to remember when it comes to buying things like flashlights and other electronics is to buy ones that use conventional batteries. AAA, AA, C, D, and 9 Volt. They're the easiest to find, even in bulk. You don't have to go on a wild goose chase finding them. Electronics requiring C batteries have become kind of rare…but they do exist. One thing to remember about C batteries is that they're exactly the same length as a AA so if you don't have any C batteries AAs can temporarily suffice unless you have a flashlight that requires two C batteries. AA and D batteries are BY FAR the most common so it helps to buy in bulk so you have plenty on hand, but don't get cheap ones. And you can even buy plastic cases like the I have which is called a **Battery Daddy** that has slots for putting dozens of AAA and AA batteries in along with spaces for 9 Volt, C, and D. The one I have also has a battery tester and a space for putting button batteries. It's a great product for keeping all your batteries organized and stored in a single location so they won't get loose and scattered.

Get quality batteries, preferably name brand or the better quality ones you can get in bulk at places like **Harbor Freight**. They do have expiration dates…but I've had batteries last WELL beyond their expiration date. You should also have several sets of 9 Volt batteries for replacing the batteries in your smoke detectors. Some places, like mine, also have a carbon monoxide detector that also need 9 Volt batteries. One thing to remember is that smoke detectors and carbon monoxide detectors can sometimes go bad. I've seen them start beeping or going off uncontrollably and replacing the batteries does nothing to solve the problem. You'll have to call your landlord or property management company and inform them that it's malfunctioning so they can to replace it.

One type of battery I invested in that you should, if you can find them, are rechargeables. You just need to get a charger. You should have at least four sets of AA batteries for things like your remotes, flashlights, and other things. There should be a couple sets of batteries in the charger ready to go in case you need them. Problem is that the charger I had, after 15 years, it broke down and fried the batteries in it. I was told that it was surprising for a battery charger which usually last 10 years. To find rechargeables go to a battery specialty store such as **Batteries + Bulbs** in Redding which is next door to **Target**. **Wal-Mart** no longer carries them. But don't just buy the batteries and charger. Talk to the employees, listen to them, follow their instructions, and buy quality because they'll last longer and you'll get the most out of them. Expert advice is very important!

And check the batteries in your flashlights and electronics from time to time. Even if the flashlight isn't on the batteries can eventually run down and die. Sometimes they can even rupture and corrode your electronics. It's a MAJOR problem when you're in a survival situation and you have to change your batteries or you have electronics that have been RUINED by corroded batteries. I decided to check my batteries and discovered that the ones in my *Streamlight* lantern and headlamp had ruptured and ruined both of them as well as a small one AA LED flashlight I got from the NRA. The batteries in the *Streamlight* had come with it and were cheap. It depends on the quality of the batteries. What surprised me was that the batteries in my *Snakelight*, that had been there for at least 13 years, were still good and working! I removed the batteries from the rest of my flashlights and had to replace the headlamp and *Streamlight*. My new headlamp is like my old one and like the *TacLight* in that it has a battery pack requiring 3 AAAs. It's best to have a couple flashlights ready where you need them & store the rest of your emergency electronics empty and the batteries with them to avoid these problems.

One very useful piece of equipment to keep handy is a *Swiss Army Knife* and/or *Leatherman Tool*. *Swiss Army Knives* are made by a company called **Victorinox** in Switzerland and come in an ENORMOUS variety of sizes, colors, shapes, and have more tools and blades than most people can imagine. The most practical are red. Stay away from the smaller knives and ones with gimmicky designs on the handle because they are novelties and collector's

items more than anything else. And you don't need the ones that are that 3" wide costing $200-$300 with dozens of blades because they're nothing but expensive novelties and collector's items too. The most practical one that I recommend, at minimum, is called the *Explorer*. It has a bottle opener with a slotted screwdriver, a can opener with a smaller slotted screwdriver, Philips screwdriver, plastic magnifying glass, pair of scissors, large and small knife blades, corkscrew with a tiny screwdriver inside it, an awl with a hole you can use as a drill or large needle, toothpick, pen, and tweezers. You never know where these things can come in handy, especially if you don't have a can or bottle opener. My old *Explorer* served me faithfully for more than 15 years. One morning IT saved the day when its Philips screwdriver was available when one wasn't in the toolbox at my job! The largest practical one is the *Swisschamp*. It has the same features on the *Explorer* as well as a fish scaler, saw, fingernail file, small pair of pliers, chisel, and other blades. It costs $110, but don't pay more than that. Smaller derivatives of it like the one I have, the *Champion*, have apparently been discontinued. The *Swisschamp* comes in red, transparent red, transparent blue, and black. You don't need one that has a wooden handle which costs $40 more. And don't get one of those *Cybertools*, *Evogrip Toolchest Plus*, or others that cost more than $110. They're not practical and overkill.

Leatherman Tools, and their derivatives made by other companies, which are called multi-tools, come in a variety of shapes and sizes but all integrate a pair of usually needle nose pliers with a small pair of wire cutters, but other kinds are available, inside a folding handle. Inside the handle, in addition to a knife blade, are a file, can opener, both Philips and slotted screwdrivers, saw, and other blades. The more modern, sophisticated, and expensive kinds have a knife blade, serrated knife blade, saw, and file on the outside with the tool blades on the inside. The slotted and Philips screwdrivers can be one unit set up so you can flip between the two, and you can buy accessory kits that have other bits that can go in their place and fit other kinds of screws. The one I have is the *Leatherman Wave* which costs $120. They do make generic *Swiss Army Knives* and multi-tools…but they're cheap knock off imitations that don't come ANYWHERE NEAR the quality and longevity of **Victorinox**, **Leatherman**, **Gerber**, **SOG**, and other name brands that are the BEST. Believe me, you get what you pay for. The scissors on the *Swiss Army Knife* and *Leatherman Tool* are very handy when you don't have a real pair of scissors. I use mine all the time and they're also good for breaking blisters. The slotted screwdrivers are good, besides tightening screws, for prying open the lids on cans of *Sterno* and the pliers on the *Swisschamp* and *Leatherman Tool* are good for putting the lid back on in order to put them out. But avoid the smaller multi-tools. They don't come anywhere near the utility and usefulness of the larger ones like the *Leatherman Wave* like what I have.

You should also have a good lockback knife, which are stronger and sturdier than regular multiblade knives, to handle any bigger, tougher jobs. But don't get a cheap one. You don't need to pay a fortune, but you should pay a little extra to get a name brand one to get quality. It should have one blade at least 2-3 inches. And you want a regular blade. Avoid serrated blades because they are difficult to sharpen and detract from the most important part of the blade. The one I have is a **Buck Knife** I first saw in the **Smoky Mountain Knife Works** catalog back in 1993 that was discontinued, but I wanted to find one. Its handle is made from titanium and I found one on **Ebay**. It cost $100, but it's the strongest, most solidly built lockback knife imaginable with a 4 In. blade! One place to buy good knives like *Swiss Army Knives* and *Leatherman Tools* is **Sportsman's Warehouse**. Another place to find just about any kind of knife imaginable and other outdoor gear is **Smoky Mountain Knife Works**: **smkw.com**. And you should have sheaths for all your knives. You can buy a fixed blade sheath knife, but that's overkill and if you're carrying one around it might cause someone to panic and call 911.

Don't let ANYONE tell you that because knives are dangerous or because you're a Regional Center client you shouldn't have one. I grew up with them and use them all the time for all kinds of things such as opening boxes, cutting things, tightening screws, and fixing things. As long as you keep your fingers out of the way and respect them you won't get hurt. NEVER cut toward yourself with a knife. I have a scar on my finger to remind me from when I made that mistake. Four stitches. I made the same mistake with a chisel. I had to call 911, went to the hospital in an ambulance, and got three stitches. You also need a steel or diamond sharpener to sharpen them. You just need to get a booklet or something showing you how to do it properly. They are particularly useful if you go camping or hiking. Just bear in mind that there are certain places that you can't take them, such as Social Security, courthouses, schools, college campuses, and places with security stations such as hospitals. Most workplaces ban knives, including *Swiss Army Knives* and *Leatherman Tools*, despite their utility and handiness. Many people think ANYTHING is a weapon. You have to be careful when and where you use them. One time someone called 911 on me because I cut down some branches that were dangling down in everybody's way I'd run into for the umpteen millionth time saying that I was waving my knives around. It took ten minutes for me to get the truth through to the police, that I was doing what they deemed a public service. They let me go because I assured them that I didn't do anything wrong.

One thing that is very useful is a utility belt like what I have. It must be separate from the belt on your pants or shorts. What makes utility belts so great is that you can put sheaths for your knives, flashlight, and other pouches for

other gear on it. I recommend a black 1 ½" wide Cordura nylon belt with a plastic buckle that you can get at places like **Sportsman's Warehouse**. 2" belts *will* work, but 1 ½" fits sheaths for knives and other kinds of pouches much better. Just make sure it's long enough to fit you with some leftover in case you need to adjust the size. The buckle can eventually wear out, but they are easy to replace. The one I have has a metal buckle that I got from **CHKadels**. The metal buckle is MUCH more durable and will last FAR longer. Fanny packs work well too. I usually bring my utility belt with me that has my knives because I never know where they may come in handy. Other times I can't bring it when I have to go to places like the college, Social Security, hospitals, and the courthouse. Two additional pouches I have on my utility belt hold additional gear, my cell phone, and my digital camera. They're also useful for putting canteens on too. Another thing that's useful is a vest and you can buy ones that have multiple pockets that you can put additional gear into. My vest, that I got from **Sportsman's Guide**, is olive green and has lots of pockets to put a pair of mini binoculars, compass, survival whistle, tactical gloves, folding saw, fishing line nippers, and a scale/tape measure for fishing in. It's set up so I can use it for fishing, hunting, camping, and hiking. There's room in the other pockets for me to put additional tools and gear in.

I always bring my backpack with me whenever I go out. I keep my checkbook inside it as well as other important things. It's good for carrying things like groceries, papers, checks, and other stuff in. But I also keep my EDC or Every Day Carry equipment in it. My backpack has a large main compartment and a smaller front compartment I keep my EDC in. Sometimes I ride my bike and I used to have a compact tool kit that attached to the frame until the tool kit box fell apart. I took the tools, tire pump, and everything out and put them in the smaller compartment in my backpack in case I needed them. I also have a small first aid kit and a pair of leather work gloves because I never know where I might need to use them. The leather gloves protect my hands in case I have to handle anything rough such as branches, pieces of wood, thorny objects or find myself having to do manual labor. I also have a small spiral notepad with a mechanical pencil in case I need to write something down. A mechanical pencil is better because you don't have to sharpen it. Just remember that to withdraw the lead you push the button down and push the lead back in. And as I mentioned earlier, I also keep a better quality rain poncho, preferably one made of ripstop nylon, in case I get caught out in the rain. It's no different than preparedness for the survival situations I described but instead of being stuck at home you're caught away from home.

I highly recommend that you put together and carry an EDC with you the way I do. You never know what situations might come up when you're away from home.

- Cell phone
- Rain poncho
- Pair of leather work gloves
- Small first aid kit
- Small spiral notepad with a mechanical pencil
- Water bottle
- Knives
- Flashlight
- Anything else you can think of that would be useful for being prepared for when you go out, but don't take so much stuff that you're going backpacking. You want it light enough that you can easily carry it and inconspicuous.

You need to be able to easily carry it so you have room to carry other things such as groceries and other stuff. It's best to have a better quality backpack like mine that has a smaller compartment in front of the main compartment to keep your EDC in. The maximum legal pepper spray you can carry in California is 2 OZ so if you can get one it's a good idea to carry one in your pocket for self defense. You just can't take it to certain places like courthouses, Social Security, hospitals, schools and colleges, and other places. It's also a good idea to carry a water bottle because you never know when you may need it. All you ladies who like having purses CAN have them, but it's still a good idea to have a backpack like what I'm describing for your EDC, plus they're good for carrying things around. After I broke my arm I couldn't use my backpack. I have a shoulder bag I use for fishing so I had to take all the fishing gear out and used it as an alternative for my backpack. I also had to use it to carry groceries. Sometimes shoulder bags are handier than backpacks.

And for all of you who own cars and use gasoline there's something very important you need to know. Gasoline deteriorates and it's not something that can be stored for extended periods of time. If you have a car that you rarely drive you need to drive it from time to time because gasoline is only good for about 6 months before it becomes unusable. When it's stored in tanks underground gasoline is sealed and under ideal conditions, but not when it's in cars and gas cans. Same thing goes for diesel. It can be stored for up to 12 months…if the temperate is 68° where

it's most stable. But those kinds of ideal storage conditions are difficult to maintain so diesel deteriorates more rapidly. So if you're storing gasoline and/or diesel, you MUST use it before it deteriorates plus it's a fire hazard.

Vehicle maintenance is VERY important. It's probably the most valuable thing you own and an important asset that you depend on and MUST take care of. Every 3,000 miles you NEED to get the oil changed. I made that mistake once with a lawnmower that blew up on me after I neglected to keep it oiled. So keeping your car maintained is very important if you want to keep it running properly. A properly tuned up car gets better mileage and runs better than one that's been neglected. You should take your car in to get it tuned up and the tires rotated AT LEAST once a year. Twice is better. Keeping things like brake and radiator fluids maintained are very important. Sometimes you need to check your hoses. You need to pinch them and they should be soft and pliable. If you feel any resistance and/or hear any crinkling sounds it means it's old and wearing out and they need to be replaced. Like your health, you never know what might go wrong. One time our old **Bronco** broke down so that it couldn't go in reverse. Another time my dad and I were out scouting deer in the **Bronco** when it broke down in the middle of nowhere. Dad couldn't figure out what the problem was so we had to walk out. Fortunately, a family in an SUV came along and saw us. They dropped off some of the people who were with them, came back, and took us to a phone where my dad called my uncle who came and took us back to the **Bronco**. They searched it and finally found the problem. A wire had come loose! Both the **Bronco** and the truck that replaced it ended up developing oil leaks!

With all things it's always the most critical part that's always the most vulnerable. Your tires are the most vulnerable part of your car or bicycle. You need to check things like tire pressure and tread width sometimes, especially the spare tire. My brother used our old pickup and it had a spare tire, but then I realized that it was a dud, completely useless! We went out into the forests around McCloud doing woodcutting a lot so I got on him about the spare tire and refused to go anywhere with him until he did something about it. If we'd had a flat tire we'd have been "out of luck". So we went to **Les Schwab** in Mt. Shasta and I suggested he do what another uncle who was a Ph.D was forced to do the year before when we were in Arizona doing a research project. One of his 2-ply tires on his brand new truck got SHREDDED by a rock or something! He had to change the tire and the next day we went to a **Les Schwab** where he was told that the tire was COMPLETELY destroyed! They recommended and he bought a used tire that was in good condition to use as the spare tire. My brother did the same thing for the spare tire on the pickup. I felt safer going out with him knowing that we had a spare tire that actually worked. Fortunately, we never had to deal with any flat tires. One thing to remember about tires now versus tires in the past is that tires now don't have inner tubes like bicycles.

On that same trip to Arizona with my Ph.D uncle one time I was with the truck while he was checking something when I saw that the tire was going flat. I showed him and he got frustrated. We stopped by a gas station on the way out and refilled the tire. He thought it was loss of pressure from the heat. The next morning we went back to work in the same mountain range. We'd parked and were about to go to work when I told him that I could hear air leaking from the tire. He wanted to work and leave it going but then I told him that by the time we were done the tire would be flat and I knew he didn't want to change a flat tire. We made an emergency, long distance run to the nearest city to get the tire fixed. Fortunately, it was just a nail, an easy repair. The moral is, if you hear a leak in your tire or you think it's getting low it's MUCH better to get more air or get it fixed BEFORE it goes flat rather than having to change it and THEN get it repaired. It's no different than any other problem you might have with your home, health, or anything else. It's better to get a problem fixed BEFORE it becomes bigger and more serious. And you need to check the pressure every few months. Your tires can loose pressure over time. I've reported abandoned cars before where the tires were flat. The way to tell if your tires need to be replaced is to take a penny and place it with Lincoln's head pointing down between the treads. If the tread is lower than Lincoln's head your tires need to be replaced. As the old saying goes, "An ounce of prevention is worth a pound of cure."

The thing with what happened to my Ph.D uncle in Arizona was that it was a brand new truck and he didn't have good, strong truck tires designed for going into the kinds of back roads mountainous places we were going into. They were more like road tires. They did the job, but they were nominal tires. Eventually he got truck tires for doing the kinds of outdoor adventures the truck was built for. Your tires are the parts of your car connecting you to the road, where, "The rubber meets the road." You should get the best tires you can afford, especially during the winter when it's raining and possibly snowing and/or icy. When my parents lived in Wyoming they kept two sets of tires for their car they changed twice a year. Regular tires for the summer and studded snow tires for avoiding slipping in icy conditions because they got very rough windy, snowy, icy winters. If you're going on a long trip or something you MUST get your car checked and tuned up so it'll be up to what you're asking of it.

Now while I've never had to assist in changing a flat tire, doing it is a very tough, rough, frustrating job. You have to get out the jack and tire iron, get out the spare tire, get the lug nuts off while the wheel is still on the ground, get the jack under the drive shaft or whatever the wheel's attached to, jack up the wheel, get it off, put the spare tire on, put the lug nuts on but don't tighten them all the way, gently release the jack, tighten the lug nuts when the tire is

firmly on the ground, and then put the flat tire and everything away. It's a very frustrating and annoying job, especially if you're a small petite woman who isn't very strong. And usually it's done in the dirt and/or mud. It helps if you keep an old piece of carpet or something to lie on so you're not lying in the dirt or mud. It can range from nails to blown tires. Depending on where you are you may not be able to get help. And then, if something goes wrong with the other tires, you're in serious trouble.

It's also important to have good windshield wipers. Wipers that wear out impair your vision so you need to replace them. Good visibility is CRITICAL to safe driving. It's a good idea to clean your windshield whenever you get gas too because you never know what's going to get on your windshield. Bug splatters, mud, dust, pollen, all kinds of debris. Using wiper fluid to clean your windshield doesn't necessarily get everything. Sometimes pieces of gravel, rocks, and other debris can hit your windshield causing knicks and cracks. My granduncle had a big smash in his windshield and he said that it was caused by a rock the size of a golf ball. Fortunately, windshields are made from safety glass and doesn't shatter. One time we were riding in our old **Datsun** when we were stopped by a CHP. We got a "Fix It Ticket" because there was a problem with our windshield wiper. It's also a good idea to get a gallon of wiper fluid and keep checking and refilling your reservoir. One time we were hunting at Lower Klamath National Wildlife Refuge and during the fall and winter the roads up there can get pretty muddy. We ran out of wiper fluid and the windshield became pretty grimy. Out of frustration my dad had to stop, take his big plastic coffee mug, get some water from a dike, and throw it over the windshield in order to clean it. So it's important to maintain your wiper fluid.

One critical thing to bear in mind about driving is your awareness. A lot of accidents have happened because of drivers falling asleep at the wheel. Something that can happen is something called microsleeps where you'll temporarily fall asleep for a minute or so and then you'll wake up suddenly. Road fatigue is most likely to happen if you're driving long distance. If your awareness is impaired by road fatigue there's nothing wrong with pulling off the highway, getting out, stretching your legs, getting some fresh air, and/or getting some rest. The delay in the time it takes to get some rest in getting to your destination is NOTHING compared to the danger posed to yourself and the rest of the driving public if you're suffering from road fatigue. You might even get pulled over by the police on suspicion of DUI or something because of your impaired driving. You may not get a ticket…but they will definitely tell you to quit driving for a while and get some rest.

One thing to remember is that even if you have a car you shouldn't depend on it as your sole means of transportation. You should also have a bicycle, just in case something goes wrong with your car. You should also get a bus pass and be familiar with things like the **RABA** in Shasta County, the **B-Line** in Butte County, the **S.T.A.G.E.** in Siskiyou County, **TRAX** in Tehema County, **Trinity Transit**, the **Sage Stage** that runs out of Modoc County, or whatever bus line you have wherever you live because you can save on gas. Most buses are equipped with bike racks so you can bring your bike with you. And if you're going to ride a bike you SHOULD have a bike helmet and gloves also help. I don't feel safe riding a bike without a helmet the same way I don't feel safe riding in a car without a seat belt. Everyone under 18 is required to wear a helmet, but I see adults riding without helmets and I think they're CRAZY!!! I've had bike wrecks before and my helmet probably saved me from a concussion or worse!

It's also a good idea to wear a pair of safety or sunglasses. One time I was riding my bike through McCloud and they had just resurfaced the streets. A couple cars passed me and suddenly a piece of gravel came flying up and ricocheted off my sunglasses! If I hadn't been wearing those sunglasses that piece of gravel would've taken out my eye!!! So I swear by eye protection, plus it keeps the wind out of your eyes. And you need to get your bike tuned up from time to time especially at the beginning of spring otherwise it'll give you trouble if you're trying to shift gears or using the brakes that can wear out. Brake and shifting cables can fray and wear out causing problems too. One time I had a bike wreck because the place I kept taking my bike wouldn't fix my brakes and they wore out. Bikes are no different than cars, they need maintenance too. Lubricating the chain and keeping the tires filled is important. With some bikes you can even put a small gas motor on it and turn it into a small motorcycle.

It's one thing to have a first aid kit, it's completely different to have actual first aid knowledge. The **American Red Cross** gives online first aid and CPR training for a fee around $37. If you get a chance to get first aid training, take it. In high school I was given first aid and CPR training and you wouldn't believe how many times I've doctored myself up from minor injuries. Both my parents were EMTs so I learned a lot from them too. First aid is MUCH MORE than just putting a **Band-Aid** on a cut. Having official first aid knowledge is VERY important especially if you come across someone who's injured and needs assistance. One time I had a bike wreck where I broke my left arm. My bike helmet came in handy. I knew my arm was broken because when I tried using it I couldn't move it. I couldn't get up and had to lie there under the July sun until someone came along and asked if I was all right. I told him to call 911. Knowing what to do in an emergency can save not only your life but also someone else's. And don't let your prejudices or religious beliefs get in the way, especially in an emergency. If you

don't like it if someone swears, don't let that get in the way. If someone's injured, like I was when I broke my arm, it's highly likely they're going to swear. Don't let the fact that someone uses profanity, like I did, get in the way despite your religious beliefs and/or prejudices. And don't joke with them about helping them, either. Leaving someone injured over something petty like swearing because of prejudices and/or religious beliefs is a very despicable thing to do and could be construed as a crime. It's a SERIOUS situation and you need to take the situation SERIOUSLY. If they tell you to call 911, CALL 911!!!

THEE *WORST* NIGHTMARE for all cities and towns all over the west are wildfires. I've seen plenty of news reports and documentaries about how, global warming and climate change are the main culprits they use, wildfires have gotten increasingly worse and worse since 1980. Regionally we have PLENTY of examples of just how bad wildfires can be. In July 2018, a car pulling a trailer with a flat tire caused a bunch of sparks along Highway 299 in the Whiskeytown Area, west of Redding, that started the Carr Fire. At first **Cal-Fire** thought they could contain it to 6,000 acres…but at night winds caused it to flare up and get out of control. The Carr Fire actually split into three fires. The main fire went north, one went southeast, and one went east. The Carr Fire burned its way through Old Shasta, obliterated Keswick, and entered the west side of Redding. At one point it jumped the Sacramento River and burned down the ridge above Caldwell Park but fortunately it stopped well short of it.

Evacuation orders were given to residents all over the west side of Redding. **KRCR** was keeping everyone updated on the utter devastation until THEY got an evacuation order! At one point the fire fighters thought that they would have to take a stand at I-5! The Carr Fire burned through a bunch of neighborhoods and at one point an enormous firenado formed with winds of 145 MPH! One veteran Redding fire fighter died keeping the fire fighters updated on it. Fortunately, the Carr Fire only got as far as Buenaventura Blvd, 1.9 miles west of downtown Redding, before stopping. MANY homes were destroyed. Fortunately, it didn't obliterate the west side of Redding and turn into a worst case scenario. The two branches of the fire that turned east and southeast were stopped, but the one that went north took two months before it was finally contained. The Carr Fire wasn't declared out until January! At the time it was the 7th worst wildfire, 229,651 acres, in California history but had a small death toll.

But in November was the Camp Fire, which started in high winds in the Feather River Canyon on a **PG&E** high tension powerline. A neglected hook that had worn through broke, the powerline fell to the ground, and started a fire near a place called Camp Creek. **Cal-Fire** got the call and tried to get to the fire, which was 300 acres, but they couldn't get their fire trucks up the narrow road that lead to it. Fanned by the high winds coming through the canyon the Camp Fire quickly began to spread up the canyon toward small mountain communities like Concow. There was a larger town a couple canyons over to the west called Paradise that started getting scattered information about the Camp Fire, not knowing whether or not it was a threat. The fire continued getting bigger and more intense spurred on by the high winds. Eventually the Camp Fire crossed the canyons and hit Paradise, population 10,000. When it was realized that the fire was bearing down on them EVERYONE in Paradise tried to evacuate! There are only two ways out as the town was being obliterated! It is the deadliest wildfire in California history, 89 dead! A few young people, but mostly elderly who couldn't be evacuated.

EVERYONE who evacuated Paradise became homeless. An open field next to the Chico **Wal-Mart** became a tent city for months. The Camp Fire would continue raging for about a week and a half until a heavy winter storm came in and put it out, 153,336 acres. Paradise was COMPLETELY obliterated. The historic Honey Run Covered Bridge was destroyed. Even after all these years, rebuilding Paradise has been a very slow painful process. **PG&E**, which is worth hundreds of billions, was fined millions, charged with 89 counts of manslaughter, and ended up with a settlement in the billions to pay restitution to the residents of Paradise. **PG&E** actually filed for bankruptcy protection.

What happens EVERY year and EVERYONE in the west are vulnerable to are wildfires, which concerns me the most. The Carr and Camp Fires are EXTREME examples of just how bad wildfires can be. They were even the subject of an episode of the award winning **PBS** series **NOVA**: **Inside the Megafire**. In 2021 a tree fell hitting a **PG&E** powerline causing the Dixie Fire that turned into the second largest fire in California history! It spared Chester but destroyed Greenville that had been around since the Gold Rush. One man went to take care of an unimportant errand some distance away leaving all his survival gear in Greenville. When he got back the Sheriff's Office wouldn't let him in because the fire was going through. It devastated the eastern wilderness part of Lassen Volcanic National Park. In 2001 was the Jones Fire that started near Jones Valley and burned south destroying everything in its path. My grandfather told us about how he watched it come down and go by. Fortunately, it didn't turn east or west toward East Redding where they lived. One devastating fire back in 1992 was the Fountain Fire that was near Burney and it was arson. Any number of things can cause wildfires. Arson, neglected campfires, lightning, illegal fireworks, cigarettes carelessly tossed out a car window, problems with electrical systems, etc. Wildfires that happen in places where people live often cause evacuation orders forcing residents to drop what

they're doing and leave with nothing but the clothes on their back! Homes are burned down destroying people's property and livelihoods.

It helps to pay attention to what is going on in your city or neighborhood. Watch the news and/or listen to the radio and if you get an evacuation order: HEED IT, IMMEDIATELY!!! This is called "Bugging Out" in prepper lingo. That's why you need a Bug Out Survival Kit and have it ready in case something happens. If you're going to be evacuated you need to be ready for it. One of the most important things you should have if you're going to be ready for an evacuation is a good sleeping bag. But don't get some cheap one from **Goodwill**. And don't buy one with some stylish, childish theme that you find attractive. You want one that is well built, insulated, and big enough to fit you. You should pay around $100 for it. If you go to an evacuation center you don't know what things are going to be like. Usually they're set up at school gymnasiums and/or churches and people end up sleeping on the floor.

If you're going to get a good sleeping bag you want to go to places like **Sportsman's Warehouse** and get some good solid advice. I'm six foot and broad shouldered. Years ago I ordered a military style sleeping bag system with two sleeping bags, a camouflage *Gore-Tex* bivy cover, and a compression stuff sack. I tried out the sleeping bags once and found out that the light inner bag was only 34 inches wide and just barely fit me. The heavier outer bag is slightly larger and fit me better, but they weren't the most ideal sleeping bags for me. You want some wiggle room. I have a 40 inch wide sleeping bag…but it's not as portable especially if I'm in a hurry. One thing the military system came with is a compression stuff sack which means that after rolling up the sleeping bags and bivy cover and getting it into the stuff sack I could compress it down into a more compact package. One place you can find compression stuff sacks is **Cabela's**, just make sure it's big enough to fit your sleeping bag. If you have a compression stuff sack you can compress the sleeping bag into something smaller, more manageable, and packable. But that doesn't mean that its weight has been reduced.

Another item you want that will help if you need to evacuate is a small mattress. I have an air mattress that I've had for 25 years which, despite being a little heavy, is perfect for taking camping or places where I know I'm going to have to sleep on the floor. It's comfortable and only takes a couple minutes to blow up. It has gotten holes before, but I was able to find and seal them with **Sportsman's Goop**. It's too heavy to take backpacking, but I bought a smaller and lighter packable air mattress designed for backpacking from **Cabela's**. They also make small foam pads you can roll up and carry. It helps to discuss with the staff at places like **Sportsman's Warehouse** what to get depending on how much you can afford and can carry. You can also buy inflatable pillows which make things that much better, but depending on what you get they can be troublesome to blow up.

Another thing that helps, especially if you're going to be sleeping on a linoleum floor, and to keep your sleeping bag and mattress from getting dirty, is a ground cloth. It can be anything from a large blanket or sheet of cloth. But one thing that doesn't cost much that works especially well and is light weight is a space blanket that has a silver reflective coating on one side and a red, orange, or olive green cover on the back and is quilted. I've used them out backpacking before. They can be folded and/or rolled up into a very small package and cost less than $15 at places like **Sportsman's Warehouse**. If you lie on the silver reflective side, depending on what time of year it is, it can reflect heat back toward you and keep you warmer. A small plastic or canvas tarp will work too.

You need to learn the difference between your Survival Kit and your Bug Out Bag. Your Survival Kit is everything you need to survive when you're at home going through a power outage, extreme weather event, or anything that doesn't require you to evacuate or "Bug In". Things like bulk batteries, your lantern, your emergency food and water supply, extra toilet paper, hand sanitizer, disinfecting wipes, batteries, stuff like that. Keep them inside a plastic tub where they're easily secured.

Your Bug Out Bag is everything you need to take with you in the event of an evacuation. In a Bug In survival situation both survival kits can be used interchangeably. One thing you should do when you get your sleeping bag, mattress, ground cloth and everything together is get a very large duffle bag or large external or internal frame backpack big enough to put them in, just make sure that you don't load it with so much gear that you can't carry it. It shouldn't exceed more than 30-40 pounds. Make sure your name, address, and phone number are attached to it. A folding metal cart with wheels you use for transporting groceries and other stuff will work too if you aren't strong enough to carry a heavy backpack. Keep a flashlight, your headlamp, survival radio, some spare batteries, first aid kit, and other gear inside it and keep it ready for when you evacuate. Put on your boots, utility belt, and vest. But sometimes some evacuations are so urgent that you may not have enough time to even do that.

Set aside some spare clothes as part of your Bug Out Bag Survival Kit too. An extra pair of pants, a couple shirts, a few T-shirts, a few pairs of underwear, and a few pairs of socks in a large and sturdy, preferably waterproof, bag. All women should have a couple extra bras with your emergency clothes. I have a waterproof bag I bought to put my survival clothes in. If there's an emergency and/or you get an evacuation order you need to know where your Bug Out Bag Survival Kit is, grab it, your meds if you have any, and get to safety. If you can't get transportation

you may have to walk. The County Sheriff and local Police are setup to do evacuations and get people to safety. Find out where the evacuation center is. During the Camp Fire the evacuation of Paradise was very chaotic. A town of 10,000 had to be evacuated in a short time. But that was an EXTREME situation. Most wildfires are small and don't turn into fire storms that obliterate entire towns like the Carr, Camp, and Dixie Fires. So usually they're able to set up an evacuation center.

That's another reason why it's a good idea to have an alternative means of transportation such as a bicycle. But if you're going to get a bicycle meant as an alternative means of transportation, you don't want a racing bike like the old style 10 speeds. They're far too delicate. You want a mountain bike that are MUCH stronger, more solidly built, and are able to carry more weight. Most are designed to have accessories attached to them. You can get racks that can be attached to the back frame above the rear tire and have folding baskets mounted to the sides that you can use to put things in and haul stuff around like what I have on the back of my bike. And with the baskets spread out you can use bungee cords to attach larger objects or loads to the back of the bike. But be careful with what kind of rack you get. The one I originally had on my old bike I didn't know wasn't attached to the frame and one time the piece of metal holding it to the frame broke off. I had groceries in the baskets so the arm went right into the back wheel. I heard this metallic clattering that I knew was bad. I stopped and when I took it in I found out that a whole bunch of spokes were broken. It was an expensive repair because the back wheel had to be replaced and I demanded that they put the strongest rack available on it that actually DID attach to the frame. If you're getting a rack DEMAND one that actually WILL attach directly to the frame.

I've tried riding bikes while wearing large outer frame backpacks before and when I tried putting my head back so I could look up all the way my bike helmet bumped up against the backpack. It can be VERY awkward trying to ride with a large backpack so that's why it's a better idea to spread out the baskets and bungee cord it to the rack and wear a smaller backpack. One advantage that bikes have over cars is that they have MUCH greater maneuverability. You can get around traffic jams, take short cuts through uncrowded places, and maneuver around things that block cars. One time a school bully tried coming after me in a car while I was riding my bike. I easily out maneuvered him. Sometimes bikes can outrun cars. And one thing you can do with a bike is you can use it to carry your Bug Out Survival Kit so you don't have to bear the burden, IF you get a rack with baskets like the one on my bike. But you need to be able to secure the bike. Get a U-Bar kind of lock and a thick cable with a combination lock you can put through the frame and front and back wheels in order to double lock the bike and make it less likely that someone can steal it or parts off it.

One thing to bear in mind if you get an evacuation order, especially if it's on a hot summer day and you have no transportation, you MUST cover your body from the sun. I know that you think it feels cooler if you're wearing shorts and a T-Shirt, but if you're out in the heat the sun is beating down on your body. If you wear nothing but a pair of shorts and a T-Shirt, especially if you have to leave with nothing but the clothes on your back, your skin is vulnerable and you're likely to get sunburned which is a first degree burn and the last thing you want. Some sunburns can blister. You could put on some sunscreen…but sunscreen takes up to an HOUR before your skin absorbs it and starts protecting you. And you may have a LONG walk ahead of you. It's better to wear a pair of pants, a long sleeve Tee or cotton shirt, and your hiking boots to protect yourself from the sun. Try to get light colored long sleeve cotton shirts. You're probably thinking that you're going to be hotter and sweat more…but it's already hot. In fact, your skin will be shaded by the clothing and you're not evaporating sweat as fast. You MUST retain your sweat and body's moisture as much as possible. Think of the Bedouin tribes that live in the Middle East. They don't wander the deserts in shorts and T-shirts. They wear baggy brown clothing that covers their bodies. They thrive in that kind of environment and don't need sunscreen.

And it's important to protect your head from the sun too. A baseball cap *will* work, but a wide brimmed hat is best to protect your entire head and neck. I have two kinds of wide brimmed hats. A brown oilskin hat that I wear during the fall, winter, and spring when it's cool and raining, and a tan mesh hat I wear during the summer when it's hot. The mesh hat's light tan color is more reflective and the mesh sides vent heat and sweat easily making me cooler. All my wide brimmed hats have drawstrings, which is a piece of string, leather, or cord that is built into the hat with a slide of some kind so you can tighten it under your throat. One time during the late fall I was walking home when this hurricane gust lifted my oilskin hat off. Fortunately, the drawstring kept it from flying away. So if you get a wide brimmed hat, get one with a drawstring. Felt hats *will* work, but don't wear black or dark colored hats when you're out exposed to the heat. They absorb heat and will make you feel hotter. Save the darker colored hats for the cool parts of the year. You want a lighter colored tan or white hat like my mesh hat. Straw hats will work too, but they eventually wear out and break apart. A sombrero is overkill.

And, believe me, a pair of sunglasses will make things that much better too, especially polarized fishing glasses like the ones I wear. And for those of you who wear prescription glasses, you can buy clip on sunglasses like my mother does. Wearing sunglasses makes the glare on bright, hot, sunny days MUCH more bearable, but don't buy a

cheap pair. Buy a better quality pair, but you don't need to get an expensive name brand pair such as **Ray-Ban** unless you actually want one and are willing to go to that expense. I've gotten plastic frame pairs of polarized fishing glasses from **Sportsman's Warehouse** before that cost $30-$40 last for years. Just make sure that they're scratch resistant and if you can get a neck strap that makes using the sunglasses that much better. But sometimes, just like prescription glasses, you have to clean them so it helps to have a bandana.

And if you're walking out in the heat you MUST also carry water with you too. I've walked out in the heat before and have gotten VERY thirsty. So you want a canteen or water bottle with you where you can easily access it, AT LEAST a quart which is what a standard canteen has. In fact two canteens are better. Most canteens are military style and when you buy them they come with a belt and you can mount the canteen to it, but the belt may not fit you. Many canteens are made of plastic. I have two aluminum canteens I bought from **CHKadels** that taste better, are more durable, and the pouches are set up with belt loops rather than being military style which is MUCH more practical and can go on my utility belt. When I ordered my old US Marine Corps backpack it came with a hydration pack that goes on my back like a backpack and holds two liters of water. It has a tube that I can drink through so I don't have to fiddle around with my canteens. Some large frame backpacks are "hydration compatible" meaning that you can buy a hydration bag with the same kind of tube as the hydration bag with capacities of 2-3 liters. There's a pouch inside the backpack it goes in, the tube feeds out a hole at the top, it attaches to the shoulder straps, and you can drink out of it while hiking without having to access canteens.

Years ago I bought a large plastic tub with wheels, a lid with latches that I can put padlocks on, and a handle from **Sportsman's Warehouse**. My idea is that I could load it with camping and survival gear, mount it to the back of my bike and use it to haul my camping gear to safety if I get an evacuation order. My worst nightmare is a wildfire starting somewhere near Redding and burning into my neighborhood. I have a tent so, if necessary, I could camp outside and not in the evacuation center where people more needy can stay. All my camping gear is inside a single container.

I also want to go backpacking again. I bought a large inner frame USMC backpack and have been buying up backpacking gear so I can load it into my backpack. I found out that it wasn't designed to carry a sleeping bag so I took it to a local business and they were able to make something to modify it so I could carry a sleeping bag. I bought a clear plastic waterproof case for putting my fire starting and additional survival gear in that can go in my backpack. But I discovered that the backpack isn't nearly big enough to carry all the gear I need to go backpacking. So I bought a bigger, better backpack and wanted to modify it so that it has the kinds of features as the USMC one but found out that I couldn't do that. But I ended up finding exactly what I wanted on Ebay that was just like the USMC one only bigger and better outfitting it with some accessories. I just need modify one of the accessories and make some things to improve it so it'll do what I want it to. One thing to remember is that not all gear is always set up the way you expect or want it or up to your expectations so when you get it you may need to modify it or add to it to make it better. Years ago I bought a well stocked first aid kit and have added things like additional bandages and other medications. I've made good use of it tending to minor injuries. I've bought other items I wanted to add to it. If I go backpacking it's one item I will definitely bring with me.

High tech is not always the best solution to your survival needs. Low tech is often much more reliable. The equipment I've talked about are all low tech. While LEDs were invented 30 years ago, they're still basic flashlights just like conventional flashlights were before that. But they're far better than conventional flashlights. The host on one of my survival DVDs said one mistake rookie preppers make is relying on gadgets. You don't need a lot of gadgets. What you need is the equipment I talked about and concentrate on skills. If you want to know more about survival you can buy a book or DVD off **Ebay** or **Amazon**. Not everyone is an avid outdoorsman like I am, but everyone needs to know something about preparing for emergencies and extreme situations like the ones I've described. One very good series of DVDs I recommend are the ***Panteao Make Ready To Survive*** series. It's a 13 part DVD series and they have a group of experts who explain how to deal with preparing to survive. One, *Bugging Out*, is a two DVD set because it's such a complicated subject.

The six most relevant I recommend are:
The Essentials of Survival
Short Term Prep & Plan
Suburban & City Environment
Emergency & Disaster Management
Civil Breakdown
Bugging Out

Not only am I an outdoorsman, but I'm also a coin collector. Having valuable coins in my possession I naturally need something secure to keep them in. I have two fireproof safe boxes and a fireproof safe. I also keep things like my Social Security Card, birth certificate, and other important papers and valuables in them. Two of them are waterproof. Everyone, including Regional Center clients, should invest in a fireproof, preferably waterproof, safe box to keep their valuables in and keep the keys in a secure place. Some come with combination locks. If you have a fire your valuables WILL be protected for up to an hour. It's an investment in protecting that which is most valuable and important to you. Bear in mind that these fireproof safe boxes are very solidly built and heavy so you need to be able to lift them. If the safe is big enough you may need a moving dolly and/or assistance. You can find them at places like **Lowes** and the cheapest costs $30 plus tax. The 2 cubic foot fireproof/waterproof safe with an electronic keypad costs $529. The largest is the 4.7 cubic foot fireproof/waterproof safe with electronic keypad that costs $769. It's best to get one that's a little better quality and waterproof, just to be safer and more secure.

When I moved into my last apartment the property management company REQUIRED that I get Renter's Insurance. Having insurance means that if something happens to your place and you loose your property you won't be "out of luck". You will receive compensation and can get new furniture and other property. It's no different than people who own houses getting Homeowner's Insurance. Having Renter's Insurance is just like the Survival Kit and fireproof safe box, just in case. It means having redundancy in the event that something happens to your property. It's an investment in your future, protecting that which is MOST valuable to you. And those of you who own cars should know that you're REQUIRED by law to get Car Insurance.

Northern California and Southern Oregon aren't like other parts of the country. We're not as vulnerable to the weather the way places like the Great Plains, Midwest, Southeast, Northeast, and other parts of the country are to things like severe weather, tornados, and hurricanes. We don't have emergencies where we have mass evacuations except in the event of one of the Cascade volcanoes like Mt Shasta becoming active. The worst weather we have to worry about are things like severe thunderstorms and extreme rain events that can cause flooding such as what happened in 1995, 1997, and 2017. In February 2017 the spillway at Oroville Dam began breaking apart while they were releasing water. The water began overflowing the emergency spillway for the first time causing the Butte County Sheriff to issue an evacuation order for Oroville and 188,000 people along the Feather River. They ended up releasing water out of the spillway, which was mostly destroyed, and it was kept going for months! The resulting flood on the Feather River ended up devastating Oroville's riverfront and Riverbend Park. Half the spillway had to be almost completely rebuilt and the company that runs the dam got a very lengthy list of charges by the Butte County District Attorney for all the environmental damage. At the same time, Shasta Dam had to release a heavier amount of water than normal into the Sacramento River causing minor flooding on Park Marina Dr below the Cypress Ave Bridge, but without the dam it would've been MUCH worse.

Flood events are rare, but they do happen. One thing that can happen, especially in heavy thunderstorms that remain over one place for extended periods of time, are flash floods that are floods that strike suddenly with walls of water that hit unsuspecting people. The deadliest natural disaster in the country are floods. Flash floods typically happen in canyons and confined areas. While rare in Northern California, they can happen. Sometimes you can get extreme weather events where rain storms can train together over a certain area and very heavy amounts of rain can fall over a short time causing flooding. One time in February 2017 I was waiting for the **RABA** after dark and the rain was coming down so hard you couldn't see more than 100 yards! STAY AWAY from flooded ditches, creeks, and rivers, especially if the ground is wet, because it might give way and you can fall in for your own good!

Thunderstorms happen and often cause power outages. The smartest thing to do in a thunderstorm is to stay inside, especially during the heavy rain. People can get struck by lightning and it is a life threatening emergency. Lightning doesn't have to hit you directly to get you. It can hit a nearby object and arc through the ground or water or something and get you. And people have been struck multiple times. I heard about a Park Ranger who worked in Shenandoah National Park who was struck seven times! You don't want to be outside in a thunderstorm. One time in 1990 I was outside my house with some friends and we heard a thunderstorm coming. I told them that we should get inside. Then, as were heading for the house, lightning hit a tree less than a thousand feet away! When that happens there isn't time for the delay between the lightning strike and the thunder! You see and hear both AT THE SAME TIME! It sounded like an explosion, louder than shooting a big rifle! We were lucky that we weren't struck! We got inside and the thunderstorm cell came directly over us. We stood on the porch and watched it. We heard lightning go off within less than a thousand feet several times!

Although extremely rare, the valley CAN see tornados. They are spawned by rotating thunderstorms. While NOTHING compared to tornados in the Great Plains and back east, you don't want to be outside if you're under a severe thunderstorm or tornado warning. I've never heard of them occurring as far north as Redding, but further south in the valley they CAN happen. Another reason to stay inside during a thunderstorm, especially during severe thunderstorms, is heavy rain and hail. I've seen severe thunderstorms on the news move over places like Chico and

car dealerships getting hit with severe hail and suffering ENORMOUS damage! High winds can cause heavy rain and hail to be blown into windows also causing roof damage. Branches and trees can fall. I've seen the results of trees falling in storms onto cars and being TOTALED. Trees falling onto houses are bad enough. Another place that's safe to be in a thunderstorm is a car, but rubber tires being insulation is NOT the reason. You're surrounded by a steel cage and if the car gets struck the lightning is channeled through the frame and then into the ground through the tires which are steel belted. But if you're dealing with large hail the windshield can be shattered and the rain is going to get you, a serious problem for storm chasers. It's best to be inside a building, especially if you're dealing with hail or a tornado.

One thing that can happen is dry lightning, which is caused by something called virga which is where the rain evaporates before reaching the ground. Dry lightning can cause particularly devastating wildfire events. One in particular took place in Northern California in June 2008. I was in Chico and fires were all over the region. The smoke got so bad that several times inversion layers formed over the valley trapping the smoke and heat inside it. The heat was unbearable and the smoke got so thick you couldn't see more than 300 yards! Sometimes ash would rain down. Enloe Hospital distributed a limited number of hospital masks but I couldn't get any. So I got out my respirator I used for airbrushing. Problem was that sweat would build up around the rubber covering my nose and mouth so I'd have to take it off and wipe the sweat. Fire fighters came from all over the country and all the motels and hotels in Chico were booked solid for them. The fires were so devastating that President George W. Bush came to Redding to see it for himself!

One very serious chronic problem that's always been part of California's history and the whole country is droughts. The winter is the rainy season in California and droughts happen every few years. Some have gotten so bad that some towns that rely on wells have had to have water trucked in. The fall of 2012 was rainy, but then 2013 turned into the driest year on record! The drought continued into 2014. Another severe drought in 2016 caused Shasta Lake, California's largest reservoir, to reach its lowest level since a severe drought in 1977. A drought in 2021 caused Lake Oroville to reach its lowest level ever. California had to start emergency drought orders. Right now the Colorado Basin is experiencing an extreme drought bringing lakes Meade and Powell down to their lowest levels ever!

Water conservation is very important ANYTIME. Every little bit helps. I remember reading in *3,2,1 Contact* magazine when I was 10 about how people often waste a gallon of water by leaving the water blasting while brushing their teeth. Bearing that info in mind, since I was 12, I've only dripped enough water to wet my toothpaste, brush my teeth, and only use enough water to wash my toothpaste down when I'm done. Quit being stubborn about this sort of thing. It's a very stupid and unnecessary thing to leave the water blasting while brushing your teeth…all because of habit. We all need to do our parts! Water is a finite source! We can't afford to waste it on petty things like brushing our teeth, especially in hard hit drought and desert areas.

Keep it in the back of your mind, do I have to do this or that that could potentially waste water? Sometimes when droughts get bad enough that severe restrictions are put in place. Another thing that helps is taking showers rather than baths. Showers use less water than baths, as long as we don't take forever. I know sometimes it feels good to soak for a long time in a hot bath, but in a severe drought we all need to do our part to conserve water. Sometimes crud can build up in the waterline affecting the taste of the tap water. The only way to make the water taste right is to flush the waterline by leaving the water blasting for several minutes, but that's an occasional necessity. It happens more often in older homes and buildings.

Another situation you may have to deal with is an earthquake. The worst ones I've heard of happening in the Redding area are 3.5's. In order to do damage you need to get up to a 4.5. Fortunately, Northern California doesn't have any major faults like in the Bay Area, along the west central part of California, and Southern California with the San Andreas. The place we're most likely to have large earthquakes is from the Mendicino Triple Junction where the Pacific, North American, and Gorda Plates meet off the Mendicino and Humboldt County coasts. In 1980, 1992, 2010, and 2022 there were large earthquakes in that area. In March 2023 there was an aftershock from the 2022 earthquake and I woke up in the middle of the night hearing things rattling around. Later that day my mother called asking me if I'd experienced it and I told her about what I'd heard. In December 2024 another 7.0 happened off the Mendicino Coast.

My first earthquake was in September 1993. It was evening when I was on the phone with my great grandmother when suddenly things started rattling around. Both she and my dad were from the Bay Area and they both started saying, "Earthquake, earthquake!" I saw the light fixture above the dining room table swinging around and after about 30 seconds it stopped. The next day I found out that earthquake happened in Klamath Falls and two people died. For 30 years I was under the mistaken impression that it was 5.0, but after looking it up on **Wikipedia** I found out that it was 5.9. It wasn't until then that I found out that another 6.0 earthquake took place in the same location later that night after I'd gone to bed. I remember how on Thanksgiving 1996 there was a small earthquake

underneath Shasta Dam, large dams like it can sometimes trigger earthquakes. In May 2023 Lake Almanor in the Sierra Nevada Mountains east of Chico was struck by two magnitude 5 earthquakes. Later that summer I was working on my computer when I heard a few thumps that made me suspect that an earthquake had happened. I wondered if one might have happened down in the Bay Area. I later found out that a 5.0 had taken place near Burney and Fall River Mills, but it was really deep so there was little damage. The amount of damage depends on the earthquake's magnitude, depth, and distance.

The worst earthquake we have to worry about is from what's called a Cascadia Subduction Zone earthquake. Off the Mendicino, Humboldt, and Del Norte Counties, Oregon, Washington, and British Columbia coasts is the Cascadia Subduction Zone. A subduction zone is where an oceanic plate is forced under another continental plate. The oceanic Gorda and Juan de Fuca plates are being subducted under the North American Plate. About 60 miles inland the plates melt and where the magma rises to the surface is where the Cascade Range volcanoes such as Mt Shasta, Mt Lassen, Mt St Helens, Mt Rainier, Mt Hood, and the others are. But over the last 300 years tension has been building up along the North American Plate.

The kind of earthquake I'm talking about is what happened on December 26, 2004 in the Indian Ocean with the tsunami that killed nearly 230,000 people. That earthquake was 9.1 and what happened was the subduction zone off the coast of Sumatra ruptured along about 1,000 miles. It's called an undersea megathrust earthquake. What happens is the continental plate above the subducting plate suddenly slides forward and upward for several hundred miles. These kinds of earthquakes are so powerful that they actually knock the Earth slightly off its rotational axis. In the process it displaces hundreds of feet of ocean water creating tsunamis which are ocean waves with crests of hundreds of feet. In the open ocean tsunamis can be only a few feet high and travel 600 MPH. But when they approach land the wave slows down, begins piling up, and grows higher and higher. They can be up to 100 Ft high. With all tsunamis the force of the approaching wave will rapidly pull the water back out into the ocean.

Then, when the wave hits, it becomes an UNSTOPABLE force of water that can go miles inland destroying EVERYTHING in its path. There is so much force behind it that NOTHING can stop it. I remember seeing footage of the 2004 tsunami where people ran out to catch fish exposed by the retreating ocean only to be killed when the tsunami hit. And tsunamis can come in multiple waves. Authorities warn that if you see water being rapidly drawn out into the ocean it means that a tsunami is approaching and you need to get to high ground fast, unlike those people who ran out to get the fish who didn't know better. If the water is being pulled out slowly it's just the tide. In a tsunami the water will be pulled out very rapidly. In 1964 there was the 9.0 megathrust earthquake in Alaska, the largest recorded in North America. It sent a tsunami that actually hit Crescent City. The 2011 megaquake that hit Japan was a megathrust earthquake too and a tsunami hit Japan and Crescent City.

The same thing has been happening on the Cascadia Subduction Zone, which is only 600 miles long. Scientists studying it have found "ghost forests" that were killed by tsunamis from previous undersea megathrust earthquakes along the Oregon and Washington coasts. They did Carbon 14 measurements on samples from the dead trees and were able to get a good idea as to when the last one happened 300 years ago, but couldn't be certain as to exactly when it happened. The scientists dug into the mud banks finding multiple layers of sand that had been washed into the same areas from previous tsunamis determining that they happen on average every 300-500 years. Fortunately, a historian in Japan went through records and determined that an "orphan tsunami", a tsunami without an earthquake, had happened in January 1700 so he was able to give the scientists the answer they needed. Anywhere in the world there's a subduction zone these kinds of megathrust earthquakes and tsunamis happen every few hundred years. The most powerful earthquake on record was a 9.5 off the coast of Chile in 1960 that produced a tsunami that hit Hawaii and Japan.

Ever since the 2004 tsunami geologists have been carefully monitoring the Cascadia Subduction Zone. It's due for an undersea megathrust earthquake. Because of this, authorities in places like the Oregon coast have made preparations for the possibility of a megaquake and tsunami. I've been on Highway 101 on the Oregon coast and there are signs saying "Tsunami Warning Areas" and "Tsunami Evacuation Routes". Areas where the highway and other places are in low enough areas to be vulnerable to a tsunami. Preparations have been made for evacuations in the event of a tsunami, which can happen just about anywhere in the world. Scientists have sensors all over the Pacific Ocean monitoring for earthquakes and warn them in case of a tsunami. In Hawaii, the **Pacific Tsunami Warning Center** is on constant guard for them.

In the event of a Cascadia Subduction Zone undersea megathrust earthquake it wouldn't be an earthquake where things would just rattle around a little. Megathrust earthquakes are 8.5-9.0 or higher! It would cause CATASTROPHIC damage to most of the northwestern United States and southwestern Canada! Things that aren't solidly held to the ground would fall over, glass would shatter. Being 60 miles inland the damage wouldn't be quite as catastrophic as it would be on the coast, but it would still be extreme. Fortunately, we don't have to worry about tsunamis.

I've heard about how in earthquakes you should get under a table, desk, or something like that. I've heard about what you need to do to prevent injuries. Like I've heard about how if you're sitting in a recliner, couch, or something you should get out of it and lie on the floor in front of it so that if anything falls it will land on the furniture and not on you. I've seen pictures of how it creates a kind of "pocket" that will afford some protection from things that fall down. If you're in bed I've heard about how you should stay in bed. If you're outside and you're near a building you need to get away from it so you won't be hit by falling debris. If you're in the open it's best to stay there. It's not like the ground's going to open up and you're going to fall in. That's a myth and not what happens in earthquakes. If you're in a building it's best to get next to an exterior or load bearing wall which are the strongest walls in a building.

After the earthquake, if you're able, you need to get away from the building if you're in one. It's highly likely that gas lines will be ruptured and electrical lines damaged. The power is likely to be out. If you smell gas you need to get away from it as fast as you can. If there's an electrical spark there could be a fire or explosion. If you're trapped under fallen debris you need to try and free yourself so you can get to safety. And you need footwear because it's highly likely that broken glass, boards, nails, and other debris will be in your way that you could step on. The fewer injuries you have the better! If you can get to your Bug Out Survival Kit without too much risk do it, but don't risk your life getting it especially if you smell gas, there's a fire, and your kit is covered with debris.

When you're outside you need to be careful. Branches will probably have fallen or be broken and ready to fall. Trees may be getting ready to fall. Powerlines will have fallen and depending on whether the power has gone out you need to avoid them. If you can, get to an open area such as a parking lot or grassy area that's free of powerlines, debris, and trees. Depending on the size of the town or city you live in emergency response services will start rescuing people. Decisions will be made as to where to evacuate people to safety depending on the extent of the damage. Don't call 911 unless you're seriously injured or have an actual emergency because too many calls to 911 can actually jam up the phonelines. Instead, call non-emergency dispatch if you have a lesser emergency that doesn't require immediate medical attention.

I've taken the tour of Shasta Dam and was told that it is one of the strongest structures ever built. The tour guides said that it's capable of withstanding a 9.0 earthquake. Being 60 miles inland from the Cascadia Subduction Zone, Shasta Dam's most likely source for a 9.0 earthquake, it stands a good chance of surviving that kind of earthquake. In the unlikely event of Shasta Dam becoming unstable and a possible failure, an emergency alert would be released and the public would be informed. If you're near the Sacramento River and you get that kind of alert the most important thing to remember is the same thing to do to in a tsunami, get to high ground, FAST! And you don't want to get a few hundred yards from the river. You want to get AT LEAST 500 vertical feet above the river. The flood that would come down the river and canyon would be AT LEAST a hundred feet high and would wash away EVERYTHING in its path all the way down to the delta. It would make a flash flood look like a trickle.

One of the worst disasters in American history was the 1889 Johnstown flood where the South Fork Dam, a fill dam, overflowed and collapsed. The flood that came down the canyon and hit Johnstown, Pennsylvania almost obliterated the city killing 2,209 people who had no warning. Difference is, we would have warning. A much more likely scenario is the collapse of a fill dam like Oroville Dam. Shasta Dam is a concrete dam which are MUCH stronger. In 1928, the St. Francis Dam, a concrete dam near Los Angeles, collapsed due to design flaws and a defective soil foundation. It is the third deadliest disaster in California history. At least 431 people died, but that's just an estimate. To this day nobody knows exactly how many people died.

I've prepared a handout with web addresses and the locations of stores around Northern California that I mentioned where you can find the kind of gear I talked about. Talk to your service coordinator and/or worker about the kind of situations I've talked about. Make a list of the kind of gear and food you'll need. Go to stores like **Sportsman's Warehouse**, **Big 5**, and **Dick's Sporting Goods** and preview what you'll need to get, just make sure that you can afford them. Remember, don't buy some cheap flashlight or knife that won't last. Get name brand knives, gear, batteries, and good quality LED flashlights made from aluminum like what I talked about. If you can't afford the gear you need, start a fund and save your money and wait until you have enough to afford it. You may be able to give up some of your habits or things you like that are not essential in order to save money and prepare. There may be programs you may be able to take advantage of that can save you money. I got my gear over a 35 year time period.