

URBAN EMERGENCY SURVIVAL PLAN

Readiness Strategies for the City & Suburbs

JIM COBB

URBAN EMERGENCY SURVIVAL PLAN

URBAN EMERGENCY SURVIVAL PLAN

Readiness Strategies for the City & Suburbs

JIM COBB

LIVING READY BOOKS
IOLA, WISCONSIN
www.LivingReadyOnline.com

CONTENTS

INTRODUCTION

Few people would argue that cities are probably the last place you truly want to be when a disaster hits. The electrical grid in many urban areas is antiquated at best, and it doesn't take much for portions of it to go down, sometimes on a regular basis and often without apparent cause. Other systems, such as those controlling water and sewer, can be just as fraught with problems.

Yet, at the same time, cities are where we conduct business and where we have fun. Where else other than a large city can you possibly pick up Chinese food at three in the morning? Where else can you visit a museum, stop at a park, and then end the day at a Broadway show?

Much of the literature related to disaster preparedness, if it addresses urban concerns at all, focuses on convincing people to move away from the cities. While this isn't the worst idea in the world, for many people that just isn't a feasible option. The city is where they were born and that's where they've chosen to live their lives. That's where they work and where they play.

When I set out to write this book, my goal was, and still is, to give urban residents the knowledge they need to combat the threats they will face in the wake of a disaster. There are certain risks that are higher in cities than elsewhere, such as a large population competing for limited resources. There are also specific challenges, such as the lack of space to grow the majority of your own food.

Despite these challenges and risks, all is not lost for the urban prepper, no matter what many books, websites, and blog-

gers may say. Where there's a will, there's a way. Preppers are a unique breed of people. They are independent and often stubborn. They've made up their minds to do something and, by God, they are going to do it, no matter what.

City preppers share that mindset with their country cousins. Despite being told time and again that cities are no place you want to be if disaster hits, they've decided to stay the course, come what may.

That's where this book comes in. Rather than tell urban preppers they need to figure out a way to grow an acre of food, raise goats, and build an underground bunker, I've tried to impart some common-sense approaches to urban prepping. There is a fair amount of discussion on the subject of bugging out, but that's a necessary part of any disaster preparedness plan no matter where you live.

The fact is, people have been living in cities for thousands of years. During all those years, countless disasters have struck those urban areas. Everything from volcanic eruptions to war, terrorist attacks to earthquakes. Time and again, urban residents have come out on the other side, perhaps a bit battered but none the worse for wear. Human beings are fairly resilient creatures, after all.

It is my most sincere hope that everything you read in this book remains nothing more than an intellectual exercise for you. If you never have to truly rely on the knowledge contained between these covers, I'll be a happy guy. Few people hope and pray for major disasters. Even if you manage to avoid any truly catastrophic events, odds are pretty good you'll experience power outages, severe weather, and other short-term emergencies at one point or another.

Within this book, you'll learn how to store food and water for emergencies, with a focus on doing so in a limited space and with a limited budget. We'll talk about health and sanitation, which are critical areas particularly in urban settings. Security

and defense are also major issues any time you talk about high concentrations of people. The creation of a few different kinds of survival kits will quickly get you on your way to becoming a full-blown prepper.

Most of all, this book will give you the confidence and skills you'll need to weather any storm, whether you live in an apartment, townhouse, condo, or any other urban setting. Homesteading is all well and good, but we're taking prepping to the city.

CHAPTER ONE

URBAN THREATS

It can be difficult to be prepared if you don't have some understanding of what you're preparing for. That's sort of like planning a trip without first choosing a final destination. Sure, you can have a great time just road tripping and seeing the sights, but you might just end up lost.

With that in mind, let us begin our journey into urban preparedness by discussing some of the common threats we face.

SEVERE WEATHER

No matter where you live or decide to move, Mother Nature will have at least one or two ways to make life interesting.

Winter Storms

Throughout the world, there are numerous regions that experience exceptionally cold temperatures and heavy snowfall during winter. Some of these areas measure single snowfalls in feet (meters) rather than inches (centimeters).

In February 2013, Winter Storm Nemo dumped more than two feet of snow on parts of New England and surrounding areas. With hurricane-force wind gusts, this was a very severe storm. Winter Storm Nemo is an example of the type of storm

commonly referred to as a nor'easter. Several hundreds of thousands of people lost power during the storm, and it took several days for power to be restored to all in the affected area, both residences as well as businesses. Roads quickly become treacherous and in some areas completely impassable. There were several fatalities reported, with many deaths attributed to travel accidents as well as exertion from people attempting to clear snow.

Fortunately, we typically have at least a little warning before storms like this hit. In fact, due to advances in meteorological science and related technology, forecasters can often predict these storms several days in advance. By paying attention to these forecasts, you should have plenty of time to top off your supplies and avoid the last minute rush at the stores.

Hurricanes and Tropical Storms

Hurricanes are extremely powerful storms with sustained winds in excess of 74 mph. In the western hemisphere they often originate in the Gulf of Mexico or off the Atlantic coastline. These storms are called typhoons when they occur in the Pacific or Indian oceans.

Hurricane Andrew hit Florida in August 1992, and was the costliest disaster ever to hit the state. Well over 700,000 homes were damaged or destroyed and more than one million people lost power. In the aftermath of the hurricane, there were widespread reports of looting from businesses, with news footage showing armed shop owners guarding their stores. Almost a dozen insurance companies went bankrupt due to the massive costs of reimbursing the insured residents.

Of course, no discussion of hurricanes would be complete without mentioning Hurricane Katrina. Even with all of the technology at our disposal and all the warnings that were repeated over and over to residents, more than 1,800 people lost their lives. Few would argue that mistakes were made by officials and civilians alike in the way the storm and the aftermath

Hurricane damage

were handled. While we'd hope lessons were learned and will be heeded in the future, the largest opportunity for learning might be that people need to rely on themselves first, rather than relying on government and/or private agencies that are likely to be overloaded with requests for assistance.

Hurricanes and tropical storms don't strike without warning. These storms are often observed and reported several days if not a week or more in advance of landfall. Acting on these reports early will give you ample time to make the proper preparations, such as securing your home and evacuating to a safer area.

Tsunamis

Tsunamis, or tidal waves, can strike any coastal area. The triggers for tsunamis include underwater earthquakes or volcanic eruptions as well as landslides. A tsunami is a series of massive waves. Unlike normal ocean waves, they don't "break" but instead appear as a rapidly rising tide. How rapidly? Go online and do some searching for news footage from the tsunami that hit Japan in 2011. It took just minutes for the wave to flood towns to such a degree that homes were almost completely underwater.

Weather Alerts

Severe weather rarely strikes without at least some advance warning. You might consider adding a weather app to your phone or at least investing in a battery-powered weather alert radio. Both of these technologies utilize information from the National Oceanic and Atmospheric Administration to alert you to potentially hazardous conditions. These are excellent resources to have available, particularly during power outages.

Flooding

Flooding can occur just about anywhere there is a body of water. In times of heavy rain, rivers can rise above the banks and spread into nearby towns and cities. After the rain stops, it can take days for the water to recede, leaving devastation behind. When it comes to traveling in flooded areas, even a mere 6 inches (15cm) of water can sweep you off your feet.

Tornadoes

Tornadoes are, unfortunately, a very common occurrence in the Midwest region of the United States, particularly in the area often referred to as "Tornado Alley," which generally refers the area of northern Texas through Kansas and Oklahoma. While this designation is not official, it has become a recognized colloquial term. The costliest tornado in United States history hit Joplin, Missouri, in May 2011. It was rated as an EF5 tornado, the most severe rating on the Enhanced Fujita scale, with winds in excess of 200 mph (322 kmh) About 160 people were killed as a result of the tornado. Roughly 25 percent of the city was destroyed. Several thousand homes were flattened or otherwise severely damaged.

One of the problems with tornadoes is the lack of warning time before they strike. Often, there are mere minutes between the time when a tornado siren is sounded and when the actual funnel cloud hits the area. In May 2013, a tornado struck

Funnel cloud

Moore, Oklahoma, killing several people as well as causing massive damage. Residents there had less than fourteen minutes from the time the warning sounded until impact.

Heat Wave

In urban areas in particular, heat waves can be a severe problem. Excessively high temperatures that continue over a period of several days or weeks put a considerable strain on the electrical grid. Residents crank up their air conditioners in hopes of finding relief from the heat. Brownouts and rolling blackouts become common during heat waves. The heat also puts a strain on the human body, causing serious health threats to both the young and the old.

Adequate rest is a necessity of the human body. Heat waves often affect sleep patterns as it can be very difficult to be comfortable when the temperatures don't cool off appreciably at night. This lack of rest leads to feeling worn out and agitated, which in turn can result in an increase in violent acts among the city's populace.

Drought

Droughts are a result of a significant lack of precipitation over an extended period of time. While often thought of as being a warm weather threat, a drought can occur at any time of year and in any climate. A drought has both short-term and long-term impacts. Water usage may be restricted due to falling levels in natural water supplies. Food prices can rise as a result of crop failures.

In 2011, the southwestern region of the United States experienced the most severe drought since the 1930s Dust Bowl era. Coupled with the lack of precipitation was a massive heat wave, with temperatures rising into the triple digits for about forty consecutive days. Food prices escalated quickly and the number of wildfires increased. Lakes and rivers dried up and residents in some areas faced water restrictions.

Record high temperatures plus restrictions on water is not a great combination. This particular threat highlights the need for having a stockpile of stored water.

Wildfires

Every year, from spring through autumn, fires break out along the West Coast of the United States and are driven by strong Santa Ana or Diablo winds. These wildfires cause massive amounts of damage as well as threaten the lives of thousands of residents. Wildfires are often at least partially a result of drought conditions. While residents in these areas may be warned ahead of time when conditions are becoming ideal for wildfires, there are many causes for the fires themselves. A carelessly extinguished campfire or a lit cigarette tossed from a car may spark a fire that destroys thousands of acres and threatens hundreds of lives.

Part of the danger of wildfires stems from their speed. Depending upon the terrain, they can spread as quickly as 12 to 14 mph. The fire can even jump ahead of itself, with embers taken aloft by high winds and dropped into dry grass farther away.

Earthquakes

As the recent quakes in Japan and Haiti show, earthquakes strike without warning and can cause massive losses of life and property. Earthquakes happen along fault lines, which is where oceanic or continental plates meet. On January 17, 1994, an earthquake hit Northridge, California. The magnitude of the quake was officially measured at a magnitude of 6.7, with an extremely high ground acceleration being felt as far away as Reno, Nevada, some two hundred miles away. With a duration of only about ten to twenty seconds, this earthquake averaged about one billion dollars in damage per second. Almost sixty people were killed as a direct result of the earthquake and over eight thousand injured. Unfortunately, there is typically little to no warning before an earthquake occurs.

Volcanoes

Volcanoes are weak spots in the Earth's crust that allow gases and lava to rise to the surface. When they erupt, they can cause tremendous amounts of damage. On May 18, 1980, Mount St. Helens erupted violently, sending ash and smoke fifteen miles into the air. In the two months prior to the eruption, there were many signs of imminent disaster. Several earthquakes had begun fracturing the north face of the mountain, with the pressure from steam inside causing the face to bulge. Authorities closed the area to the public, which likely saved thousands of lives. As it was, though, fifty-seven people were killed as a result of the eruption and the total cost of the clean up was estimated at 1.1 billion dollars.

Underneath the famous Yellowstone National Park in Wyoming lies a supervolcano. When it last erupted approximately 640,000 years ago, scientists estimate roughly 240 cubic miles of ash, dirt, and debris was sent into the atmosphere. Many of these same scientists believe it is not a matter of *if* it will erupt again, but rather a matter of *when*.

ELECTRICAL GRID COLLAPSE

Power outages often accompany severe weather. In fact, electricity is usually the first thing to go when the weather turns violent. In many urban areas, the power grid is antiquated at best and as a result is somewhat fragile.

A typical outage lasts a day or so and isn't usually that much of a hardship, though inconvenient and frustrating. However, if the outage extends into a couple days or more, urban dwellers may see some significant issues begin to crop up. Many, if not most, urban residents rely on electricity for heat and cooking. Not to mention, the night can get pretty dark without electric lights. In urban areas in particular, this can lead to significant security concerns.

Solar Flares

Solar flares may sound like something out of science fiction, but they can have a very real effect here on earth. In September 1859, a powerful solar flare caused a geomagnetic solar storm.

This solar storm resulted in a spectacular light show across many parts of the planet. Typically, only those residing in northern regions of the world see aurorae; however, in this case the phenomena was seen as far south as Cuba and Hawaii. The bad news, though, was the event also caused major problems with electrical systems, as primitive as they were by today's standards. Telegraph systems in particular went haywire, in some cases delivering shocks to operators as well as starting fires. British astronomer Richard C. Carrington was among the first people to observe and report the solar storm, and it was named the Carrington Event in his honor. If such a flare or storm to hit today, it is theorized the impact could be catastrophic to the power grid.

Electromagnetic Pulse (EMP)

Another threat to the electrical grid is an electromagnetic pulse (EMP). Discovered during nuclear weapon testing in the 1940s,

an EMP is a result of nuclear detonation. Without getting into the complicated physics, an EMP is essentially a fast pulse of electromagnetic radiation that causes rapid changes in the electrical and magnetic fields in the affected area. The result is current and voltage surges that disable unprotected devices. In short, an EMP will basically overload the electrical grid in the area and ruin the items running on electricity as well.

Think of EMPs like this—let's say there was a huge on/off switch that controlled everything running on electricity. An EMP effectively turns that switch off, somewhat permanently.

Today there are devices that could be manufactured to produce an EMP without the nuclear explosion. While the risk of terrorists getting their hands on one might be remote, it is not impossible. Should an EMP be set off at the correct altitude over the central United States, it could effectively wipe out much of the power grid from coast to coast.

TERRORISM

On September 11, 2001, terrorists hijacked four airliners. Two of them crashed into the World Trade Center in New York City, one crashed into the Pentagon, and the final plane diverted from its intended target, Washington, D.C., and was forced to crash in Shanksville, Pennsylvania by passengers who fought against the terrorists on board. Almost three thousand people died as a result of these attacks. While much of the world had felt the effects of terrorism for decades, these attacks brought this threat to America's shores.

Terrorism works by spreading fear and chaos. The bombings at the Boston Marathon in April 2013 is a prime example of this. Three people were killed and 180 were injured in the blasts. The subsequent manhunt to find the bombers effectively shut down the city of Boston, with residents being told to remain at home and to lock their doors. While in most areas this was not a mandatory order, the majority of the residents followed instruc-

Wreckage caused by a terrorist attack

tions. The entire city was brought to a screeching halt. Residents were unable to get to work or even to an open grocery store to pick up a gallon of milk.

Terrorism isn't limited to violent, physical attacks. Cyberterrorism brings different threats, but is potentially no less deadly than bombings. For example, in 2009 it was reported that Chinese and Russian computer hackers had managed to break into various urban infrastructure computer programs and insert programming that could be activated at a later date. Had these hacks not been detected, they could have affected systems such as water, sewage, and power grids.

EPIDEMIC

Due to the close proximity in which people live and work in an urban area, disease can spread much more rapidly in cities than in rural areas. From 1918 to 1920, a particularly deadly form of influenza killed about 75 million people across the globe, infecting more than 500 million. In addition to those whose

health was directly affected, fears about exposure and infection caused communities to effectively shut down. Stores closed up and hospitals were well over capacity while trying to operate on skeleton crews. While medical breakthroughs coupled with improvements in public sanitation have had a positive impact on reducing the number of epidemics, disease remains a distinct threat. In 2009, a similar influenza outbreak occurred, killing more than 18,000 people worldwide. Part of the problem is how rapidly the flu virus can mutate, rendering the current vaccine all but useless. Even with our modern vaccinations, around forty thousand people in the United States die every year just from the common flu.

SUPPLY SHORTAGES

There are several different reasons why your grocery store may suddenly not have enough stock on hand to satisfy your needs. There are many links in the supply chain and a problem with any one of them can cause the chain to break. Truck drivers going on strike, weather issues, problems with the suppliers—any one of these events can result in shortages being observed on store shelves.

Once upon a time, stores had large stockrooms in back, where they stored goods to replenish the shelves as needed. However, about ten years ago or so, something called Just in Time (JIT) inventory systems began to rise in popularity. The idea is that by reducing the size of the stockrooms, stores can increase the actual selling space within the building. So, stores were remodeled and the stockrooms were drastically reduced. At the same time, computer programs were installed to keep much better track of the merchandise in the stores. These inventory programs track sales and automatically order from the warehouse enough widgets to fill the shelf every week. The merchandise comes off the truck and goes immediately out to the sales floor. It's a great concept that makes perfect business sense.

Store shelves wiped out

The wrench in the works, though, is when there is a sudden increase in sales, such as just before a major storm. It doesn't take long at all for the average grocery to run out of bread, milk, and other basic commodities. When that happens, it could be a couple days before the next shipment, provided the trucks aren't delayed by the very storm that caused the run in the first place.

CIVIL UNREST

Any time there is a large-scale disaster, quite often one of the end results is civil unrest in the cities. When small segments of the population perceive that established laws are unenforceable, chaos rears its ugly head. Looting, riots, and just general bad behavior become the rule rather than the exception.

Sometimes it isn't a catastrophe that causes the riots, rather the riot *is* the catastrophe. Case in point—Los Angeles, California, April 1992. After the acquittal of four officers accused of excessive force and assault against Rodney King, racially motivated riots broke out in several areas of L.A. It took several days for authorities to get things back under control. More than fifty people were killed and a couple thousand were injured. Close

Rioting

to one billion dollars in property damage was inflicted, mainly through looting and arson.

Wilding

Related to riots is a fairly new form of civil unrest called *wilding*. This is the term used to describe small bands of people, typically teenagers and young adults, who rampage through an area of a city, stealing from stores and physically assaulting anyone in their way. In 2011, the opening day of the Wisconsin State Fair in Milwaukee, Wisconsin, saw an example of this. Groups of youths, predominantly males, rampaged through the midway, breaking into fights with other groups and, after leaving the fairgrounds, assaulting other fairgoers in the area. Around the same time, though not that day, there were reports of convenience stores being robbed by groups of young adults who swarmed the stores en masse, grabbing what they wanted and just walking out the door.

SUMMARY

In discussing these various threats, the goal here is not to scare anyone. Rather, it is important to realize we live in an unpredict-

able world, where weather as well as man-made disasters can happen at a moment's notice. The following chapters will help you to create and execute a survival plan so you'll be better prepared for whatever life decides to throw your way.

CHAPTER TWO

GOVERNMENTAL DISASTER PLANS

After the 9/11 terrorist attacks in the United States, massive changes took place with regard to how future disasters were to be handled. States and counties were encouraged to develop emergency response plans and federal funds were made available for doing so. As a result, there are now plans on file with county agencies from coast to coast.

Generally speaking, the disaster plans created by government entities are a matter of public record. By examining them, we can put ourselves ahead of the game. If we know in advance what various government agencies plan to do in the event of a crisis, we can adjust our own plans accordingly.

WHAT SORT OF GOVERNMENT RESPONSE CAN WE EXPECT DURING OR AFTER A DISASTER?

As you might expect, local government agencies are typically the first to respond to a disaster. Fire and rescue teams, as well as police and sheriff's departments, are the first on the scene. They do what they can to help the injured, secure the scene, put out fires, and clear debris. This level of response is usually sufficient for small emergencies, such as house fires or localized storm damage. However, even when adding in aid from neighboring towns, these

departments can become overwhelmed and require further assistance. Not to mention, there are times when a disaster is spread over a region to such a degree that there is no mutual aid to request because everyone is busy with their own end of things.

State-level agencies can be called in for these more widespread emergencies. This includes the National Guard. Their goal is to assist the local agencies in whatever manner they can. While there may occasionally be some jostling as to who is effectively in command of the disaster recovery, generally speaking these agencies work well in conjunction with the locals.

Moving another step up the chain, the state governor can request federal aid. This assistance will come from FEMA (Federal Emergency Management Agency), which is a division of the Department of Homeland Security. At this stage, FEMA can provide shelter, food, water, and other supplies, as well as personnel to help with the mitigation phase of disaster recovery. The federal government can also provide financial assistance to individuals and businesses.

LIMITATIONS TO GOVERNMENT AID AND RESPONSE

With all that assistance available, some people wonder why they should plan to provide for their own safety and needs in an emergency. Many plan to just sit tight and wait for help to arrive. This is flawed thinking for several reasons.

First, it takes time for any assistance to arrive. FEMA and other agencies estimate it could take as long as three full days for support to be put into place. When you're cold, tired, and hungry, three days is a darn long time to wait for help. To be honest, if we look at recent disasters such as Hurricane Katrina, three days is a rather generous estimate. There were people in New Orleans waiting quite a bit longer than just seventy-two hours.

Second, there is only so much aid to go around. Supplies are not infinite. Trucks can only carry so much food and water at a time. Depending on the nature of the disaster and the number

of people in need, they may very well run out of supplies before they get to you, which will increase the amount of time you'll have to wait for a blanket and a bottle of water.

Third, and in my opinion perhaps most important, I believe it is the duty of everyone to do their fair share when it comes to disaster preparedness. Few of us lack the ability to stock up on even small amounts of food, water, and other supplies. I look at it like this—if there is a major snowstorm happening, every single person who ends up stranded on the road puts at least one or two other people in danger by having to come rescue them. Always strive to be part of the solution rather than adding to the problem. There are people out there who will truly need the support of the various responding agencies. Let the aid go to where it is truly necessary.

ARE THERE NON-GOVERNMENT AGENCIES THAT ALSO RESPOND TO DISASTERS?

There are a number of civilian groups and organizations that frequently get involved with disaster response. One of the most important of these is the ARRL (American Radio Relay League). These great folks are involved with amateur (ham) radio and donate their time as well as their equipment to help with communications between other responding agencies, both government and civilian.

The Salvation Army also frequently steps in to provide food, water, shelter, and other necessities that have been donated to the cause.

The American Red Cross is probably one of the best known of these relief agencies. Often among the very first to arrive after a disaster strikes, they will not only help provide basic needs but refer disaster victims to government agencies for long-term assistance. In addition to these well-known national agencies, there are innumerable local groups, such as those affiliated with churches, which will often step in and lend a hand.

WHERE CAN I FIND MY LOCAL GOVERNMENT DISASTER PLANS?

At the minimum, every county in the United States has an emergency management department. It may go by slightly different names—emergency management and disaster response are two of the more common names used. In many counties, this falls under the purview of the county sheriff's department, so I'd suggest you start your search there. You can go online and search for your county name along with the term *emergency management* and that should get you pointed in the right direction. Following that, call the non-emergency number for your county sheriff's department and ask them how you can get in touch with the county's emergency management coordinator.

Larger cities often have their own emergency management departments as well. This may be a function of the police department but is sometimes a joint effort between city hall and law enforcement. Again, go online and search your city's name along with *emergency management* and you should find it.

What am I likely to find in these disaster plans?

While the information may not be disaster-specific, the plans should first give you an indication of how much, or how little, the powers-that-be have thought about the various types of disasters likely to befall your area. That information will be found in the risk assessment section of the plans. Reviewing that material will help you understand the most likely threats.

Proceeding from there, you are probably going to find information on which governmental agencies will be responsible for certain actions. For example, vehicular traffic may be stopped in certain areas or diverted to specific routes, with this being enforced by the police department. The health or human services department may be tasked with setting up emergency shelters, clinics, or distributing food and water. Often, this will be done in conjunction with an aid agency like the American Red Cross.

Government Response in Disaster

By Charley Hogwood

As we prepare for disasters, we must keep in mind that regardless of how bad the situation, there will always be some form of authority. If you have a clear understanding of how that authority operates you will know what to expect and how to react. First of all, you must understand how the system is designed to work. Agencies operate on the principle that all emergencies are handled at the local level first and expanded as needed. For example, you wouldn't expect FEMA to respond to a house fire. The emergency response system is a connected flow of support based on the Incident Command System (ICS). As an incident becomes too large to handle, more assets are systematically sent in to gain control.

Too often, we hear stories of citizens complaining that FEMA took days to arrive and take control. FEMA is only a coordinating agency, providing support when requested through presidential declaration. In a nutshell, here is how it works. When an event strikes, local authorities become overwhelmed and state assistance is requested. If state resources are not sufficient to deal with the crisis, the governor requests a disaster declaration from the president. If approved, FEMA responds by sending support from various agencies suited to the event. As you can see, the system needs time to activate. Each increasing level of support cannot happen without an official request from the level of government below. In a major disaster event, personnel groups called Strike Teams are deployed to gather information on which areas need help and what type of help they need. We must understand that when lines are down and roads are blocked the survey times may be severely delayed.

Until the pieces are in place, and even then for some time afterward, you are on your own. The average responder to citizen-to-first-responder ratio is approximately 1,000 citizens to every 1 first responder. All responders will be on emergency duty in a severe event. Medical services will be very busy evacuating patients, law enforcement will be performing security operations, and utilities will be surveying and clearing debris for travel and recovery. Often, law enforcement combines into groups for assistance and projection of power, which further reduces the number of individual eyes on the street until assistance arrives. Another thing to note is that local responders may be victims of the disaster themselves and not available to respond to calls for assistance.

The citizen caught in an event should expect to experience restricted travel in and out of the affected area. Often, people are away from their homes when disaster strikes and are unable to return due to roadblocks. Roadblocks are not always

official—panic travel, evacuation and debris will hamper movement. It is not uncommon for people to be prevented from returning home for extended periods of time. Once the restrictions are eased you will need proof of residency or a very good reason to be there. If the event is of a heath nature, such as contagion, the standard operating procedure of the authorities is to contain, or in other words, quarantine. In this case, everyone will be required to shelter in place as long as it takes and all travel will be suspended in affected areas. After a perimeter is established, law enforcement will begin to move about the affected areas and interact with residents. Their mission, at this point, is the health and welfare of the people. If they feel someone is at risk, that person may be evacuated or detained and/or have any threats, such as weapons, removed from their possession.

What does this mean for you in a disaster situation? Chances are you'll be without any real substantive assistance for at least several days post disaster, so three full days' worth of supplies is a bare minimum when it comes to planning. After some of the hurricanes here in Florida, neighborhoods were without power for several weeks. How would your supplies hold up? Immediately after an event, you are on your own for the most part, unless you planned for such an event by forming a Mutual Assistance Group (MAG). A MAG is a group of people positioned in such a way as to provide support to each other in a crisis. In your hazard planning you would be wise to seek out those around and nearby you who are assets to your family and also be aware of those around you who may be hazards to your family. Remember that with low supplies and high tensions, it's always best to be proactive rather than reactive.

Charley Hogwood is the Chief Instructor for P.R.E.P. (Personal Readiness Education Program, www.readygoprep.com) and author of MAGS: The People Part of Prepping. *Prior to focusing his life to personal emergency preparedness, he served more than fifteen years in both the U.S. Army and the Florida National Guard. Charley is also a Palm Beach County CERT Team Leader. CERT stands for Community Emergency Response Team. As head of his local CERT team, he has undergone additional training in disaster preparedness, fire suppression, medical triage, search and rescue, disaster psychology, and terrorism threats.*

Why would this information be beneficial to me when creating my own disaster plans?

You can use the government plans as a reference when making your own. For example, if you know ahead of time that in the

event of a catastrophe traffic will be rerouted away from 12th Avenue and funneled over to Baker Street, which dumps out onto a main highway, common sense tells you that you'll want to avoid that area if at all possible, due to anticipated congestion.

Bridges being closed as well as reversing traffic flow are also possibilities. This information will prove to be invaluable as you create your evacuation plans. Further, if you happen to live along or near an area likely to be affected by some sort of planned closure, these plans will give you a heads up that you may want to get out ahead of the crowd, if at all possible.

What other things might be noted in the government emergency plans?

You may find information relating to door-to-door searches. These will ostensibly be conducted for the purpose of ensuring the safety of residents. The idea is to make contact with every person who has remained in their home after the disaster struck, making sure they are uninjured, not trapped, and essentially doing OK. The downside of such searches is that if authorities find massive quantities of supplies, they may deem it necessary to confiscate and redistribute them to those in need.

Depending upon the agency and their own protocols, you may also encounter *tagging* of houses and properties after disaster strikes. As homes are searched, the search party will use paint to mark the house, either on the front door or the garage door. This mark is often a large X, with coded information around it. For example, the symbol may tell other searchers that the home has been searched twice, no survivors found, no evidence of contamination (in the event of some sort of health crisis, like an epidemic). It would be wise to look for such information in the applicable government disaster plans and make note of what the different symbols mean. This way, should you find yourself visiting a neighboring home in the area and see the large X, you'll know what's going on before you knock on the door.

You may also want to make note of the location of planned emergency shelters in your immediate area. Should your own plans fail for some reason, it would be great to know in advance where you can go for help and shelter. If you are a pet owner, be forewarned that many if not all government-run emergency shelters will not allow pets, or at least will restrict the admission of pets to those small enough to be kept in a cage or portable kennel and, of course, with proper vaccination records.

Are there other resources available to help better understand governmental responses to disasters?

FEMA, through its Emergency Management Institute, provides almost two hundred independent study courses, all online and all completely free of charge. Many of these courses would be of great interest and value as you make your own plans. You can find more information on this program by visiting http://training.fema.gov/is/.

PREPARING FOR A STAY IN AN EMERGENCY SHELTER

Despite the best of precautions, you may find yourself needing to spend a night or more in an emergency shelter. This shelter could be one set up by a government agency such as FEMA, a private organization like the Red Cross, or perhaps even a local church. No matter who is running the shelter, there are several things you'll find in common.

Many shelters are essentially single room affairs, with rows of cots set up in a gymnasium. In the immediate aftermath of a disaster, supplies and amenities in an emergency shelter will be between slim and none. The focus will be primarily on providing a roof over people's heads, some food and water, possibly basic first aid.

Due to the large numbers of people likely to be occupying the shelter, there will be little to no privacy nor any realistic means of securing valuables. Even the most efficiently run shel-

ters will be loud and chaotic. Some shelters may allow small pets, which will certainly add to the cacophony.

Assuming the utilities at the shelter haven't been affected by the disaster, there will most likely be working bathrooms. However, if you think sharing one bathroom with a teenager is nerve-wracking, try sharing maybe four bathroom stalls and sinks with several dozen strangers.

Because of the extremely limited space, as well as the security issues, you shouldn't show up at a shelter with a ton of stuff in tow. Think more along the lines of what you'd need for a night or two at a hotel. This might include:

- extra clothes, enough for a day or two
- basic toiletries (soap, toothbrush, deodorant, etc.)
- identification
- snacks and bottled water
- entertainment items (deck of cards, paperback book, etc.)
- any necessary prescription medications

As I noted earlier, some shelters may allow small pets. However, the shelter officials will almost certainly require proof of immunizations for the animals. They will also require the animals to be restrained at all times, typically in a cage or pet carrier. This is for the animals' safety as well as the shelter residents. If you plan on bringing your pet with you to a shelter, you should plan ahead by calling local agencies and verifying whether they will allow pets in the shelters they will set up after a disaster. You should bring with you a copy of the pet's immunization record, license if applicable, a muzzle, and a leash.

There are a few things you should absolutely not bring with you to a shelter. Most shelters will not allow weapons. If you are found armed, you will be asked to either relinquish the weapon or leave the shelter. Same thing goes with alcohol or illegal drugs.

Spending a night or two in an emergency shelter is preferable to ending up on the street, but you should still do everything in your power to avoid this last resort.

WHAT ABOUT MARTIAL LAW?

There are widespread so-called *conspiracy theories* that center on the idea that martial law could be imposed locally, regionally, or even nationally in the event of a major catastrophe. Leaving those aside and concentrating on the basic facts, martial law is when the military is placed in charge of an area. Generally speaking, military representatives and agencies take on the roles currently filled by civilian authorities.

Martial law often involves curfews and travel restrictions. Certain areas of a city may be closed off, with the residents evacuated (willingly or otherwise) to a safer location. Travel may be restricted to daytime hours only. Quite often, these restrictions are put in place at least partially to reduce or eliminate looting and other crimes.

A declaration of martial law can also involve a suspension of at least some of what we consider our civil liberties or civil rights. Here in the United States, we are to be free of unreasonable searches and seizures. However, during martial law, we may be subjected to them without much in the way of recourse.

With all that in mind, if a declaration of martial law occurs, you probably don't want to hang around too long. If you have a means of evacuating the area, I'd encourage you to do so. In chapter eight, we will discuss evacuating the home (bugging out) after a disaster.

SUMMARY

Government agencies will almost certainly jump into action to assist city residents affected by disaster. However, their resources and capabilities are limited. Further, they are just as subject to making mistakes as anyone else. By researching the disaster plans already in place, you can use that information in your own planning, bearing in mind that for all the good intentions these agencies and organizations have, you very likely will be on your own for some time after a disaster strikes.

CHAPTER THREE

MAKING EMERGENCY PLANS

It is often said that preppers and survivalists are all about the "doom and gloom," but the reality is that they are planning for the future, a future they are convinced will unfold after a disaster strikes. That, my friend, is optimistic thinking, not being a doomsayer. Devising emergency plans is the bulk of what being prepared is all about. We make plans, test them out, tweak them, and keep practicing until we're confident in our abilities to handle whatever life might decide to throw our way. While making plans can be a lot of work, it will all be worth it should you someday need to implement them following a real emergency. There is a saying you've probably heard before—*proper prior planning prevents poor performance.*

In this chapter, we will cover four different emergency plans:

- Sheltering in place at home
- Sheltering in place at work
- Getting home
- Evacuating from home

While some of these plans may not apply to your individual situation, I encourage you to read through them anyway as you may have a need to adapt one of them to meet a unique set of circumstances in your life.

EMERGENCY PLANNING BASICS

Emergency plans should be unique to each individual and/or family, specifically tailored to meet your needs. However, there are a few general principles that are common to all plans.

Planning Is a Team Effort

Ideally, everyone who will be affected by the plan will be involved in creating the plan—Mom, Dad, the kids, even Uncle Jesse, if he lives with you. Granted, your average four-year-old probably isn't going to be of great help in this planning process, but older children should definitely be a part of the conversations. In fact, many teenagers today have some great ideas when it comes to disaster readiness. Blame it on the popularity of zombie movies or dystopian quasi-romance novels, kids today often give at least semi-serious thought as to what they'd do in the face of a disaster.

Communication Is Key

Planning for communication is a key element of any disaster plan. While we live in a day and age where we routinely chat with people all across the globe using handheld devices, it is important to realize the use of those devices hinges upon their ability to function properly. If any element of the equation is taken away, such as power for the device, the transmission signal reaching the satellite, or the signal reaching the other device, the system falls apart.

Plan ahead for backup means of communication. For starters, each family member should carry a wallet card or some other list of important phone numbers. If the cell phone runs out of juice, you won't be able to access the contacts list. Should you need to call a family member, knowing they are number six on your speed-dial isn't going to be of much help.

Timed Check-Ins. It is also wise, as part of your written disaster plans, to set up a specific time interval for calls home or to

Split Families

In today's day and age, with just about half of all marriages ending in divorce, many children experience shared custody arrangements between the parents. This can lead to some challenges when it comes to disaster planning, particularly if only one of the parents is on board. As uncomfortable as it may be, a conversation needs to happen between the parents. Assuming you are the parent who is concerned about disaster planning, I would encourage you to not go overboard with any sort of scare tactics. Simply state that you are in the process of putting together plans for what to do if disaster were to strike, such as a major power outage or some sort of weather event.

One of the most important things to decide is who will pick up the kids from school if an emergency strikes during the school day. We will cover this in detail later in this chapter when we talk about making plans for getting home.

When deciding where the children should go following a disaster, safety comes first and it will likely make sense for the children to go to the home of the "prepper parent." An emergency is not the time to break out the calendar and start arguing about who had the kids last weekend and who canceled at the last minute two weeks ago.

other family members. What this does is help prevent unnecessary worry on the part of folks at home as they anxiously wonder when you'll be calling. If the plan says you will call every hour, or every half hour, they know when to expect the phone to ring. They can spend the time in between listening to news broadcasts or otherwise trying to gather information to help those family members who are away from home. This sort of arrangement is also good for preserving the battery in the cell phone. You can turn the phone off when not in use, confident that family members know you won't be calling for another hour.

As has been found time and again during and immediately following disasters, cell phone towers can quickly become overwhelmed. While you might see four full bars of signal strength on your phone, there may be so many people trying to make calls at the same time that few of the calls actually get through. Worth noting is the fact that text messages will often still get

FRS radios: one example of the hundreds of different two-way radios available on the market today

through during those times, as they are routed through a different system. If you can't get a voice call to go through, try texting. This is something to keep in mind when it comes to communicating with children who may be stranded at school. While school rules often forbid the use of cell phones during class time, in an emergency I doubt many teachers are going to be handing out detentions to the kids who are trying to get in touch with parents.

Communication Tree. A communication tree is also advisable. Put in very simple terms, you assign a person to be the start of the tree and they call two people on the list. Each of those people call two people, and so on down the line. This system has been around for quite a long time and it works very well for spreading information quickly.

Radio Communication. Because cell phones and even landlines have limitations, it's a good idea to have a back-up means of communication. There are, of course, many different types

of two-way radios on the market today. These work on either Family Radio Service (FRS) frequencies, General Mobile Radio Service (GMRS) frequencies, or dual mode models that can transmit on either set of frequencies. These devices don't often work very well in urban areas, due to interference. The radios generally work on line-of-sight, meaning the more obstructions between the transmitting and receiving radios, the worse the reception will be. While they are certainly a step up from the old G.I. Joe walkie-talkies you may have played with as a child, they certainly are not nearly as good as the package may claim.

Portable CB radios are an option, particularly for within a vehicle. However, the range isn't going to be very far without a very powerful transmitter. A couple of miles is about average for range.

Amateur radio, commonly referred to as ham radio, is definitely worth considering. It does require a license to transmit, but the cost is minimal. Ham operators have a long history of assisting with communications during disasters. Not to mention, I have yet to meet a ham who won't bend over backwards to help someone who is genuinely interested in the hobby.

However you set it up, everyone involved with the disaster planning needs to be on the same page with regards to communications. Who is going to contact whom and how will such contact happen?

Use a Prepping Binder to Organize Your Plans

You don't need to write out every single step of each of your emergency plans. However, it certainly isn't a bad idea to at least have an outline for each plan, hitting the high points so members of your family or group can reference it if needed. But, avoid including any information that could be a security risk. This would include things like the street addresses of your bug-out locations and where in the home someone would find your firearms or other valuables. For the bug-out locations (BOL),

Sergei M. Kharitonov © Shutterstock.com

Prepping binder

consider utilizing some sort of codes, such as referring to them as BOL A, BOL B, BOL C, and so on. This works well, provided, of course, everyone in the family is absolutely clear on which locations correspond to each code name.

A prepping binder is an excellent tool for planning as well as keeping everything related to survival planning organized. Of course, there are about as many different ways to go about assembling one as there are preppers doing it. However, there are some ready-made products available that can be of great assistance. I personally like and recommend the Preparedness Planner (arewecrazyorwhat.net). Consisting of over eighty pages, this downloadable PDF document gives both beginning and experienced preppers all sorts of forms and checklists to keep them focused and organized. It sells for $19.99 but occasionally goes on sale a bit cheaper.

Another option is to pick up a copy of *The Prepper's Workbook* by Scott B. Williams and Scott Finazzo. The forms and checklists contained within will be of great help as you go about devising all of your emergency plans.

Prepping Binder Contents. I suggest you use a three-ring binder and either buy or make divider tabs for it. The different sections should include, at a minimum:

- food storage
- water storage
- emergency contacts
- survival gear
- bug-out information

The food storage section could contain ongoing inventory sheets so you can keep track of what you have on hand. It might also have recipes for quick off-grid meals and photos and/or descriptions of edible plants in your area.

The water storage section should have information on how to disinfect water at home, whether that be through the use of a homemade filtration system or a purchased product. It would also be a good idea to list possible sources of water nearby.

The emergency contacts section is rather self-explanatory. In addition to the typical information (nearby relatives, phone numbers for poison control, hospitals, etc.), consider including contact numbers, e-mail addresses, and websites for FEMA, the American Red Cross, and any local disaster agencies you may have in your area.

The survival gear section should include a checklist keeping track of what you have on hand and what you need to purchase. This is a great place for keeping a list of what to look for at rummage sales and thrift shops.

The bug-out information section should include a checklist for your bug-out bag contents as well as the evacuation plans you devise. You'll want to avoid maps with the exact routes highlighted just in case someone else finds the binder.

Keep it someplace easily accessible; you'll probably refer to it regularly. However, I'd suggest not having it labeled in big, bold print MY SURVIVAL BINDER. Leave it unlabeled or name it something innocuous.

Sample Drill—Going Off-Grid

One drill I suggest everyone do at least a few times a year is to go "off grid" for at least a full day, preferably a full weekend. Turn off the circuit breakers in your home, except for those you truly need, such as for your refrigerator or chest freezer. There's little sense in destroying food just to make a point. But, make it clear to all involved that, for the duration of the drill, the fridge, freezer, and other appliances are essentially off limits. Trips to the store are also verboten. You and your family may only use what is on hand at the moment the breakers are tripped.

Do this drill prior to having much in the way of plans in place and see just how miserable it can be to go without power for a single day. Then, revisit the drill a few months later, after you've had time to create your plans and set aside some supplies. I think you'll find family members will see the value in being better prepared.

Practicing Emergency Plans

Something to keep in mind is that your emergency plans need to be practiced. It isn't enough to just write them down and talk about them with your family.

When we're confronted with that age-old dilemma of fight or flight, we often freeze up We don't know what to do so we become a deer in headlights. However, what experts have found in various studies about the human response to disaster is that if a plan has been practiced, not just once but several times, the body reacts faster when faced with a real disaster. While the brain is still largely concerned with figuring out what's going on, the body is already in motion.

Your plans won't do you any good if all you do is just think about them every once in a while. Doing drills allows you to make mistakes and correct them while there's still time to do so. You can find out what works and what doesn't without undue risks. Practicing the plans cement them into your mind and body, allowing you to react quicker when under stress. There's a reason why schools practice fire drills on a regular basis. Your plans should be drilled regularly, to the point that your body will know what to do even while your brain is still trying to process the situation.

If you have family members who are not really interested in disaster preparedness, drills will probably not be a whole lot of fun at the outset. However, these practice sessions can also serve to open some reluctant eyes and even get some folks more interested in the topic.

Drills can be planned far in advance, giving family members ample warning. On the other hand, a surprise drill will be much more realistic. Start by giving advanced warning with the first drill then surprise them with the next.

Now that we've covered the basics, let's go back and talk about those individual plans in a bit more detail.

SHELTERING IN PLACE AT HOME

The first plan you should have is for *sheltering in place at home*. With the exception of attorneys fresh out of law school, home is where we usually spend the most time. Therefore, odds are greatest you'll be at home when disaster hits. On top of that, home is where you'll probably have the bulk of your emergency supplies and that's where you'll want to be if something happens. In a crisis, I encourage you to remain at home until and unless your home becomes an unsafe location.

How long should I be ready to shelter in place?

In most cases, routine disasters, such as winter storms, will interrupt your daily life for perhaps a couple of days. However, it is far better to plan for the worst-case scenario and then be happily surprised when it turns out to not be quite that bad. My suggestion is to plan to provide for all of your own needs for a minimum of two weeks to a month or so. Overkill? Perhaps, but better to be safe than sorry.

What should be included in the shelter in place at home plan?

You are going to have to plan to provide your family's basic needs for the duration of the crisis. These needs include:

- food
- water
- first aid
- shelter/warmth
- security
- entertainment

As you'll see in the coming chapters, the bulk of this book is focused on preparing for sheltering in place at home.

SHELTERING IN PLACE AT WORK

The next plan on the list is for *sheltering in place at work*. Many, if not most of us, spend a third of our day at our place of employment. Now, you may be thinking, *why in the world would I want to spend even more time there? If a disaster hits, I want to get home!* You're right, to a degree. But, consider this—the most likely disaster to befall you will be weather related. Weather disasters often have a rather negative effect on traveling. Think back to the winter of 2014, when motorists in Atlanta, Georgia, were stranded for hours, even overnight in some cases, due to freezing rain. You are probably going to be better off sitting tight and waiting it out, rather than taking a chance on dicey road conditions. You want to have a plan, as well as supplies, in place so you can hunker down at work at least overnight.

This is a plan that is often overlooked in many other survival manuals, but it is very important. While eventually returning home is obviously the ultimate goal, conditions may prevent that trip from happening immediately. By planning ahead, you may be able to turn an unexpected overnight stay at work into a minor inconvenience, rather than a huge pain in the butt.

How long might I have to stay at work if a disaster strikes?

That's difficult to predict precisely, but I would plan on perhaps a night or two at the most. The idea here is to plan for a sudden,

unexpected disaster that prevents you from getting home. Odds are pretty good that if conditions prevent you from getting home after two full days, you'll have bigger problems on your hands.

What supplies do I need to shelter at work?

You'll just need some basics for roughing it at work overnight.

- a few snacks and bottles of water
- change for the vending machines, in the event power hasn't been lost
- inflatable pillow
- full change of clothes
- small toiletry kit (toothbrush, toothpaste, baby wipes for washing up)
- flashlight with spare batteries (something like the Streamlight Stylus Pro would work very well)
- sweatshirt or sweater in case it gets chilly overnight
- book or some other type of diversion
- battery-powered or crank-powered radio so you can listen to news and weather updates

All of this can be tossed into a small duffel bag and kept under your desk or in your locker at work.

Few people relish the thought of spending any more time at work than is absolutely necessary. But, doing exactly that might be the safest option available to you in the short-term.

If a disaster forces you to shelter at work, you'll probably not be the only one who is spending the night there. While you hope you wouldn't be the only person who thought ahead, that might very well be the case. Therefore, it might be prudent for you to add a few extras to your kit that you can hand out to coworkers. Of course, you could also mention to them the idea of having a few supplies in their own lockers, just in case. But, as I always say, you can lead a person to knowledge but you can't make them think.

Traveling—Think Outside the Box

One of the most common elements of a governmental disaster plan involves restrictions on travel. Specifically, authorities may not allow vehicular traffic in or out of affected areas. Should you feel it is necessary to travel, it would be prudent to have planned ahead for ways to do so that don't involve cars or trucks.

Naturally, walking works rather well. In urban areas, this can be the ideal method of transportation as you aren't limited to streets. Instead, you can cut through alleys and backyards, utilizing shortcuts as needed. You are also far less visible than you would be if you were in a motor vehicle. The drawback, though, is you are limited in what you can carry with you.

Another option is to use a bicycle. Bear in mind that bicycles have been used for many, many years as a means of transporting goods as well as a conveyance for people. With the addition of pannier packs, you can load quite a bit of supplies on a single bicycle, then push it rather than ride it if need be. While you'll be a bit limited in both speed and routes because you may have to carry the bike over spots of debris or rough patches of road, you'll still move faster and with more stuff than you might on foot alone.

What I do not recommend, though, is planning any sort of escape route using underground tunnels unless you are intimately familiar with the ones in your area. All too many people think these drainage tunnels are like the ones they see in the movies—a vast underground network of interconnected pathways, granting you the ability to disappear and reappear wherever you'd like. The truth of the matter is many of these tunnels are exceptionally dangerous, filled with toxic gases or worse. And that's if the tunnel under that manhole cover even goes anywhere.

GET-HOME PLAN

After you are able to get back on the move, you'll want a plan for *bugging out for home*. A key element of this plan is to make the assumption that some or all of your journey may be on foot. If it turns out you are able to use a vehicle to get home, just consider that a bonus.

Route Planning

With the likelihood of foot-travel in mind, the first step in making your get-home plan is to sit down with a map and plot out

several possible routes you could take to get from point A to point B. Being that you have no way of knowing the exact nature of the disaster that may force you to enact your emergency plans, you want to have several options available to you when it comes to traveling back home. Your normal route may not be feasible due to storm damage or other detours.

Commuters who regularly use public transportation, such as trains or buses, should definitely plan alternate means of getting home. Depending upon the nature of the disaster, odds are that few of those methods of transport will be available.

After you have your routes planned, it's important to travel each of them on a regular basis. You need to get to know them very well and learn how they look in all seasons as well as during daylight and night. Identify landmarks along each route. When you are under stress, appearances can sometimes be deceiving and you may start to second-guess yourself. Those landmarks will serve to keep you assured you're on the right track.

As I mentioned earlier, plan for the possibility that you'll be on foot for most or all of your journey. If that means you'll likely be spending a night on the road, be sure to take that into account with your route planning. Identify potential "rest stops" along the way. For example, if you have a close friend whose home is along your route, talk to him or her about the possibility of you dropping by as you make your way home during or after a disaster. If he or she is a very close friend, you might go so far as to stash some supplies at his place, giving you a *cache*.

Assembling a Get-Home Bag

The get-home plan involves putting together a get-home bag (GHB). This is a collection of supplies and gear that can sustain you during your trek home. The GHB differs from the bug-out bag (BOB). Whereas the BOB assumes you are leaving home and not returning for several days or longer, the GHB assumes you have a distinct end point to your journey—your home.

Your GHB should be equipped with the following:

Food: Enough to last you through your longest planned route home. The food you pack should be long-lasting, requiring no refrigeration and minimal, if any, preparation prior to consumption. Think along the lines of granola bars, roasted nuts, and crackers with peanut butter.

Water: Consider two quarts of water a bare minimum. However, water is heavy and many people cannot comfortably carry more than perhaps four quarts. Therefore, be sure to include water purification tablets or a water filtration system so you can refill your supply during your journey. Aquamira and a few other companies make water bottles with filters built in them. A LifeStraw is another product that works in a similar manner, though in this case you are using the LifeStraw to suck water into your mouth from a puddle or stream, rather than storing any of it in a bottle for later consumption.

Shelter/Warmth: Be sure you have at least one complete set of clothing in which you'll be comfortable walking. Many urban dwellers have jobs that require attire that is "business casual" or better. While those clothes may look nice, they may not be the most practical or comfortable for walking home. Don't forget a pair of comfortable shoes as well as a couple pairs of thick socks. You should also have a good quality emergency blanket, such as those produced by Heatsheets. In inclement weather, these can be used as makeshift rain ponchos as well as for keeping warm. Speaking of warmth, don't forget supplies for getting a fire going. Strike-anywhere matches, a couple of butane lighters, and a ferro rod are all recommended, as is some tinder such as dryer lint or cotton balls soaked with petroleum jelly.

First Aid: Include a small kit containing adhesive bandages, antibiotic ointment, burn cream, pain relievers, antacids, and anti-diarrhea medications. Elastic bandages for strains/sprains are also a good idea. If you regularly take medications, include enough of those meds to get you through your journey home.

Security/Defense: This is a judgment call on your part. I'm not going to insist you pack a firearm and ammunition. In many cities, this isn't a legal option for civilians and I would never suggest you break the law. However, you should have some means of defending yourself. If not a firearm, consider pepper spray or a stun gun at the minimum.

Tools: A good, sturdy knife should be a part of every survival kit. A multi-tool may also prove to be very handy to have with you. A compass and map of the area may prove very useful, should you lose your way. A bright flashlight (with extra batteries) is also a must.

Practicing Your Get Home Plan

Earlier, we talked about conducting drills with your home emergency plans. It is important to practice your get-home plan as well. Pick a weekend and have a family member drop you off at work. Put your GHB over your shoulder and head for home. This is really the only way you'll know if you have what it takes to make the trek. This is also a great way to find out if you've packed all you truly need in your GHB as well as learning what you didn't really need after all.

Getting the Kids Home From School

Not only should you make plans for getting yourself home from work, but there also needs to be a plan for getting your children home from school. This planning starts with talking to school administrators about their own disaster plans. Find out, preferably by obtaining a copy of the plans in writing, when the school will or will not release students to their parents or designated third-parties. While this information may be found in the student handbook, emergency management plans can change and you want the most up-to-date information possible.

After you have a decent handle on the school district's plans with regard to emergency management, formulate your own

Talking to Children About Disasters

As you go about crafting your various plans, you need to sit down with your children and discuss the plans with them. It is important to keep these conversations age-appropriate so as to not create unnecessary feelings of anxiety or fear. Scaring the hell out of your kids is the absolute last thing you want to do.

What I suggest is to use examples from news stories as well as personal anecdotes to illustrate to children the need for being prepared for emergencies. Perhaps there was a time recently when Aunt Sally was stranded after her car broke down and she had to sit and wait several hours before help arrived. The key is to keep these discussions somewhat light and not full of gloom and doom.

An excellent resource for having these conversations with young people is *Prepper Pete Prepares: An Introduction to Prepping for Kids* by Kermit Jones, Jr.

plans taking that information into account. Identify who will pick your children up from school or day care, should their normal means of transportation be unavailable. Typically, I suggest this be the parent who is closest to the school. However, if that is not feasible—for example, the parent who works closest to the school also has a job that would prevent them from leaving the workplace quickly—you might consider adding a trusted third-party, such as a grandparent or neighbor, to the "authorized to pick up" list at school.

After you've determined who will pick up the children, you next need to decide where the children will be taken. While logic seems to dictate they'd go to the home of whomever picked them up, that might not be ideal in all situations.

Your children should be informed of these plans and kept in the loop with regards to any changes that are made. A general outline of these plans might be kept in the child's backpack, for their reference as well as school authorities. This outline could be simply stating that in the event of an emergency that necessitates the closing of the school or that has other major ramifications, you or your appointed representative will pick up your children and take them home. There should also be a list of

contact phone numbers with this plan outline so your children as well as authorities can reach you if need be. In this day and age of smartphones and computers, oftentimes people forget the actual phone numbers if speed-dial doesn't work.

EVACUATING FROM HOME—BUGGING OUT

Needless to say, the decision to leave home, possibly for several weeks or more, is not to be made lightly. It is such a significant decision that I've devoted an entire chapter to the topic later in this book. As I've stressed several times, the ideal situation is such that you'll be able to shelter in place at home for the duration of the crisis. However, there are disasters that can make staying home unsafe, such as hurricanes or wildfires. A bug-out plan will be needed so as to get you and your family to a safe location with a minimum of hassle or headache.

SUMMARY

Disasters are unpredictable and as we go about devising our various plans, we are sort of spit-balling in terms of what we *think* will happen. However, there are some things we can do to hedge our bets and creating the plans outlined in this chapter is where that starts.

CHAPTER FOUR

EMERGENCY WATER

The importance of having access to clean water during and after a crisis cannot be overemphasized. Waterborne illnesses are one of the top causes of death around the globe. The oft-quoted rule of thumb is that a person can survive approximately three days without water. While that might be true in a purely academic sense, the reality is the latter portion of that time frame will be spent in delirious agony. Common sense should tell you that a person engaging in heavy exertion that may be commonplace during the aftermath of a disaster will need more water than they normally would on a regular day.

One of the most common effects of a disaster, particularly in urban areas, is that clean, potable water stops flowing from the taps. Even if water is still coming into the home, municipalities will issue "boil orders" if there is any risk that the water lines have been contaminated by pollutants or bacteria originating from wastewater lines. This is quite common after natural disasters such as flooding. Ironic, isn't it? A disaster may leave your city under a few feet or more of floodwater but, without having taken precautions, you could still be suffering from dehydration.

The good news is there are several easy things you can do ahead of time to help mitigate the potential loss of running water.

Flooding

HOW MUCH WATER SHOULD I STORE?

The figure that has been tossed around the last several years has been one gallon of water per person per day. I have a few issues with that suggestion. First, you have no way of knowing how long a crisis may last. Second, one gallon of water per person really isn't going to go far. Remember, that single gallon may be the *only* water you have available to you. You'll need some for drinking, some for food preparation, and some for hygiene.

I suggest a minimum of 1½ to 2 gallons of water per person per day. This gives you a cushion to fall back on if you need it. This figure is the same for adults and children.

While there is no way to know for certain what the future may hold, plan on at least one full week without running water. You can never store too much water, but space constraints will perhaps limit your ability to store as much as you'd like.

For a family of five, that comes to about seventy gallons of water to keep on hand at all times (5 people × 2 gallons/day × 7

days). But, wait, you're not done. If you have pets, you need to figure them into the equation. Plan on about a gallon of water per day for one or two dogs, a bit less for cats. If we round up our figures, this brings us to roughly eighty gallons of water that needs to be stored in anticipation of a crisis.

HOW SHOULD I STORE WATER?

Your first line of defense will be to have a quantity of clean water stored prior to the disaster. While you likely won't be able to have enough squirreled away to provide baths for each member of the family, you can certainly have enough to keep you and yours alive for the duration.

Water Storage Containers

There are several different water storage containers on the market today, with varying capacities from one gallon to seven or more gallons. You will likely have to move these around from time to time, even if just when filling them, so keep in mind that a single gallon of water weighs around eight pounds. For many people, the seven-gallon size will be just about as heavy as they can comfortably manage.

Examples of these storage containers include the WaterBrick, which comes in two sizes, 1.6 gallon and 3.5 gallon. The neat thing with this product is that WaterBricks are shaped in such a way that they lock together when stacked. The attached handle makes them very easy to move about as well, allowing you to just grab and go if need be. You can find them online at various retailers.

I keep several of the Reliance Aqua-Tainers filled and on hand for emergencies. They hold seven gallons each and have a built-in spigot for easy dispensing. I've seen these sold in most major discount retail stores and they are about half the cost of the WaterBricks.

PETE Bottles

A second option for containers is to recycle soda and juice bottles made of polyethylene terephthalate (PETE). Never use plastic milk jugs for water storage, though. The plastic used in manufacturing them just isn't suitable for long-term use and will eventually begin to degrade. If you don't consume very much soda in your home, you could ask family members to save their two-liter bottles for you. I suggest two-liter sized bottles in particular because they are large enough to make them worthwhile for water storage. You could certainly use the smaller twenty-ounce bottles, but you'll need many more of them to add up to a decent amount of stored water.

Instructions for safely reusing bottles for water storage:

1. Wash the bottles (inside and out) and caps in hot, soapy water and rinse them very well.
2. Fill the bottle with one quart of water and add one teaspoon of non-scented chlorine bleach.
3. Screw on the cap and shake the bottle vigorously to ensure the sanitizing solution reaches every part of the inside of the bottle.
4. Rinse the bottle thoroughly.
5. Fill the bottle with tap water, all the way to the top. If your tap water comes from a municipal utility company, rather than a well, you don't need to add anything further to the water.
6. If you are using a well or some other source, add two drops of non-scented chlorine bleach to the water and let it sit for about thirty minutes. If after that time you do not detect a very faint smell of chlorine in the water, add another two drops of bleach and let the water sit for another fifteen minutes or so.
7. Swish the bottle around a bit, letting a small amount of water come out the top and leak onto the threads, then screw on the cap. Doing this will prevent pathogens from sneaking in via the threads.
8. Screw on the cap tightly.

A seven-gallon Aquatainer along with two recycled gallon juice bottles

Use a marker to jot down on the bottle the date you filled it. Just like stored food, stored water should be rotated regularly. I suggest you set up a rotation schedule whereby you use and refill the water bottles about every six months. Rather than just pour the old water down the drain, drink it, use it for pets, or pour it on your garden plants. Then, just refill the bottles again, following the above procedure.

Of course, you could just go out and buy several cases of bottled water. One advantage in doing so is the water should stay fresh for many years due to the bottling process. If you shop the sales, it isn't prohibitively expensive either. In my area, it is common to find cases of twenty-four bottles on sale for as little as three dollars. I prefer to save the money, though, and fill recycled bottles. If you decide to purchase water for storage, avoid the gallon jugs that look just like the plastic milk jugs. As I noted earlier, those bottles aren't designed for long-term storage.

WaterBOB

Another water storage option is the WaterBOB, which is basically a large plastic bag that you place into your bathtub, then fill from the tap. Obviously, this isn't something you'd keep filled just in case, but rather a device you'd utilize when disaster hits. The WaterBOB will hold up to one hundred gallons of water and keeps it fresh for about four months. They cost around twenty dollars or so and come with a pump for dispensing the water.

Now, you may ask yourself, *Why couldn't I just put in the tub stopper and fill the tub without using this bag*? Well, I hate to answer a question with a question, but just how clean is your bathtub on a daily basis? Something else to keep in mind with the WaterBOB is that if a "boil water" advisory has been issued, you will still need to treat the water before using it. However, having water that needs to be treated sure beats not having any water available at all.

WHERE SHOULD I STORE MY WATER?

Whether you buy special containers, cases of water, or use recycled bottles, store the water in a cool, dark place. Basements generally work well, provided you can easily go up and down the stairs while carrying the water. I was able to obtain, with full permission, several plastic milk crates from my local grocery store. Those work great for storing recycled bottles of water.

If you don't have a basement, all is not lost. Use the space under your bed or under your couch. The floor in the back of a closet or in the back of kitchen cabinets works well, too.

No matter how much water you store ahead of time, there is always the possibility you will run out. Your disaster plan should include methods for finding additional water and then filtering and disinfecting this potentially contaminated water.

WHERE TO FIND ADDITIONAL WATER INSIDE THE HOME?

Even without having purposely stored water in advance of a disaster, there are two places you can find water in your home.

Hot Water Heater

Your first stop should be your hot water heater. The average hot water heater holds forty to fifty gallons of water. While there may be slight differences between makes and models, this is the basic procedure for draining a water heater:

1. If it is a gas water heater, turn the thermostat to "Pilot." If it is an electric model, turn off the power at the circuit breaker box. Do this even if you've lost power in the home. This is very important! If the heating element turns on when the tank is empty, the element can and likely will be damaged.
2. Near the thermostat should be a small spigot. Attach a length of hose to it.
3. Turn off the cold-water intake valve. This is a pipe that runs into the tank, filling it with water as the level in the tank goes down. What you want to avoid is having potentially contaminated water coming into the tank as you drain it.
4. Open one of the hot water faucets in your home. Doing so prevents a vacuum from being created in the water lines.
5. Position a container at the open end of your hose and then open the drain valve. Be careful as this water may still be hot. As the container gets full, replace it with an empty one, turning off the drain valve between containers.
6. After power has been restored to your home, open the cold-water intake valve and allow the tank to fill. Don't forget to close the hot-water faucet as well. After the tank is full, crank up the thermostat (for gas water heaters) or flip the circuit breaker (for electric water heaters) back on. After the water has been brought up to temperature, you'll need to test the pressure-relief valve. Instructions for doing this will be list-

ed on the side of the water heater or on a tag attached to the valve. If the instructions are missing, check with a plumber to ensure this test is done properly.

Toilet Tank

Another potential source of water in the home is the toilet tank. However, if you routinely add any sort of cleansers to the tank, this water cannot be made potable, at least not easily. But, you could still use it for limited cleaning purposes, such as washing clothes. If the tank water has not been tainted by cleansers, you can consume it after it has been disinfected.

WHERE TO FIND ADDITIONAL WATER OUTSIDE THE HOME?

Rain Barrels

There are several potential sources of water outside the home to consider. The first of which is rainwater. If you live in a house, rather than an apartment, install gutters if they are not already present. Add fifty-five-gallon drums at one or more downspouts to collect rainwater. Now, while the water is generally pure as it falls from the sky, it will not remain so after running across the roof and through the gutters. You'll still need to filter and disinfect it prior to consumption.

If security of the water is a concern, you could route a hose running from a downspout through a hole drilled in a garage wall and into a barrel hidden inside the garage. Be sure the hole in the wall is caulked well to prevent insect or vermin infestations. It is also worth noting that even a moderate rainfall will fill the barrel to overflowing. If you can, daisy chain a couple of barrels together using kits you can find at any home improvement store. I suggest doing this whether the barrels are located inside or outside. Otherwise, you'll be letting water go to waste.

Rain barrels can be found at any home improvement store as well as online. While I've run across them for free or cheap on

Opening Fire Hydrants Is a Bad Idea

While fire hydrants may seem like an obvious source for water in an emergency, think again. First, opening a fire hydrant is a criminal act. While authorities may have bigger issues at that moment, you just might catch the eye of an officer who is already having a bad day and decides to take a break from the action by having a talk with you. Second, the flow rate is rather substantial and there is no way to just slow it down. The valve on a hydrant is a simple on/off, nothing else. While you might collect some water in a container, a whole lot of the water coming from the hydrant is going to be wasted. Third, by reducing the level of water in the pipes, you are placing your home as well as others at serious risk in the event of a fire.

On top of all that, any water you do collect from a hydrant will still need to be filtered and treated as you have no way to know if the water may have been contaminated along the way to you.

Relying upon a fire hydrant for an emergency water supply is just a bad idea.

Craigslist and other similar places, I'm always leery of picking up a used barrel as it is nearly impossible to know for certain what was originally stored in it.

If a rainwater catchment system isn't an option for you, there are a few other sources to consider. Outdoor decorative fountains will collect rainwater, but if they are in public areas, it may be a race to get there first.

If rain barrels just aren't an option for you, it is still possible to collect rainwater by just placing buckets or other containers outside when it rains. This isn't a bad option during a crisis, but won't net you a ton of water unless you set out quite a few containers.

Snow and Ice

During a winter emergency, snow and ice could be collected and melted. Ice gives you more bang for your buck than snow, as it's denser. A foot of snow will only net you about an inch of water after it's melted. During winter, we fill five-gallon buckets with snow and bring them inside. The water is used for plants and

pets. We don't keep the buckets near any particular heat source and rely on the ambient indoor air temperature to melt the snow.

Dew

While it might not net several gallons of water at once, collecting dew is another source of urban water. In the early morning hours, go outside and sponge the dew off vehicles, windows, and other non-porous surfaces. Use a clean sponge or even a couple of clean T-shirts to wipe up the dew, then wring them out into a bucket. You'll want to filter and disinfect the water as it is doubtful your car's exterior is absolutely pristine. If there is high grass in your immediate area, tie a couple of rags or shirts around your calves and go for a walk, periodically wringing out the water into a bucket.

Avoid at all costs obtaining water from heavily polluted streams and rivers. If you live in a heavily urban area and wouldn't eat fish obtained from the river running through the area, you certainly aren't going to want to sample the water, no matter what filtration system you use.

HOW DO I FILTER OR PURIFY MORE WATER DURING OR AFTER A DISASTER?

Any found water has the potential to be contaminated, so you need to have the means to filter and disinfect it before you drink it. Before we go into those various methods, it is important to understand the meaning of filtering water and purifying water. Quite often, people use those terms interchangeably and they actually have different and distinct meanings.

Filtering water refers to removing harmful or potentially harmful things from the water. For example, debris, bugs, and dirt all should be filtered out of the water before consumption. No one likes to chew water, right? Many advanced filtration systems even work at the microscopic level, removing the bacteria and other nasty stuff that can and will make you sick.

The term *purification* is also something of a misnomer. In all actuality, most of the devices and techniques that we term "purifiers" are actually disinfecting the water, not purifying it. Purifying would be having the end result be nothing but two parts hydrogen, one part oxygen. The reality is you will be killing or rendering inert the bacteria and organisms that could harm you rather than removing them entirely from the water.

Pre-Filtering Water

No matter which method(s) you plan to use for micro-filtration and/or disinfection, water should be pre-filtered. This removes all visible sediment and debris and allows the other processes to work much more efficiently and effectively. Pre-filtering is as simple as pouring the water through a bandana, although coffee filters are a better choice. You could also go a step further and set up a filtration station that is comprised of multiple levels. Pour the water first through a layer of sand, then a layer of crushed charcoal, and finally through one or two coffee filters.

Another option, provided you have the time to wait, is to just let the water sit in a jar for an hour or so. This will allow sediment and debris to settle to the bottom. Pour it out carefully so as to not disturb the gunk at the bottom.

After the visible debris is removed, the water should then be run through a commercial water filtration system or it should be disinfected through another method before you can consider it safe for drinking.

Disinfecting Method 1: Commercial Water Filtration Systems

Perhaps the easiest way to accomplish turning questionable water into potable water is to run it through a commercially manufactured water filtration system. Berkey and Aquamira are two of the most popular brand names of these products. These systems come in an array of sizes and capabilities, from a system small enough to fit into your pocket to tabletop versions. While

A LifeStraw is an excellent tool for providing clean water in an urban area.

they tend to be rather expensive, they are certainly worth the price. Many of these units utilize ceramic filters and will remove just about everything except heavy metals that might be present.

The smaller units, such as those that are incorporated into water bottles, use proprietary filters constructed of various materials rather than ceramics. The end result is a reduction of over 99 percent of harmful organisms and spores. Again, though, they aren't going to do much about chemical pollution.

Another small and portable option is the LifeStraw. It will filter about 250 gallons of water before it needs to be replaced. To use, you simply place the working end into the questionable water and suck it through the straw into your mouth. The internal filters remove 99.9 percent of all waterborne pathogens and cysts. Roughly nine inches long and weighing around two ounces, a LifeStraw can be carried anywhere. You can find them for sale on many websites, including Amazon.com, and they run about twenty dollars or so.

Vestergaard, the company behind the LifeStraw, recently came out with a larger unit called the LifeStraw Family. Still very portable, this unit will filter out 99.9 percent of just about anything that can hurt you, aside from chemicals and heavy metals, and will do so at the rate of nine to twelve liters per hour. There is a two-liter

bucket at one end of the system, which is where the "raw" water goes. The water then runs through a hose and a membrane filter, ending at a tap that is turned on to release the filtered water. A bit pricier than the original LifeStraw, the Family version costs around eighty dollars or so. But, you'll be able to filter a lot more water at a time, so this is a great option for families or small groups.

Moving one more step up in size is the Big Berkey Filtration System. It is pricey, around a few hundred dollars, but it will filter in the neighborhood of three gallons of water per hour. It uses a system of ceramic filters to remove just about everything—pathogens, cysts, parasites, chemicals, and heavy metals. As proof of its capabilities, it will even remove food coloring from water. If you can afford it, the Big Berkey is certainly a wise investment, particularly for families.

Disinfecting Method 2: Boiling

The absolute best way to ensure you kill any harmful organisms is to boil the water. Experts vary as to whether just bringing the water to a hard boil is enough or if you should let it boil for several minutes. I tend to err on the side of caution. If you have the means to bring the water to a boil, odds are you also are able to keep it boiling for a few minutes. One way to ensure the water has reached a temperature high enough to kill anything nasty is to use a Water Pasteurization Indicator (WAPI). It's a sealed transparent plastic tube with wax inside. The WAPI is placed into the heating water and once the wax melts, you know pasteurization has been accomplished.

There are many ways to heat the water if your electric range is not operable due to a power outage. These include charcoal or propane grills, camp stoves, and even campfires.

Disinfecting Method 3: Water Purification Tablets

If boiling water isn't feasible for some reason, such as you lack fuel or want to preserve what little fuel you have, you can use

water purification tablets. These are available online as well as in most big box stores that sell camping equipment.

Water purification tablets are very easy to use with instructions printed on the side of the bottle. These tablets use one of two different chemicals to disinfect the water. The ones that use iodine can give the water a funny taste but adding a powdered drink mix to the water after it has been disinfected can help in that regard. The other tablets use chlorine dioxide, which tends to result in cleaner-tasting water.

Disinfecting Method 4: Iodine Tincture

Iodine tincture can also be used to disinfect water. Look for small bottles that are labeled as being 2 percent iodine, which you can find at just about any pharmacy or discount retailer. Use five to seven drops for a liter of clear water. If the water is very cold or cloudy, add eight to ten drops per liter of water. Stir or shake the water to mix in the iodine and then let it sit for thirty minutes. The iodine does give a slight bitter taste to the water. If you find this to be too unpalatable, cover it up by adding powdered drink mix after the water has been disinfected.

Disinfecting Method 5: Bleach

Bleach will also disinfect water. Use non-scented chlorine bleach and check the label to make sure it is 5.25 percent to 8.25 percent chlorine. Most bottles of bleach you'll find in stores will fall into that range. Add five drops of bleach per liter of water (¼ teaspoon per gallon) and stir or shake it up. If the water is extremely cold or cloudy, double the dosage. Let it sit uncovered for thirty to sixty minutes to allow the chlorine gas to dissipate. You should still smell a faint whiff of bleach after the allotted time has passed. If you don't, do it all over again.

Something to remember, though, is bleach has a limited shelf life. After the bottle is opened, it will only last about six months at full strength. It then begins to degrade. Fortunately,

there is a way to make a version of bleach at home. You'll need to purchase some calcium hypochlorite, commonly referred to as "pool shock." It is sold for as little as five dollars a pound at pool supply stores. Avoid any varieties that have fungicide or other similar additives.

To use calcium hypochlorite for purifying water, add ½ teaspoon of it to a gallon of water. Mix thoroughly using a wooden spoon or another non-metallic implement. *Do not drink this mixture*, as it is essentially bleach! You add this mixture to the water to be purified in a 1:100 ratio. This breaks down to:

- 1 pint shock solution to 12.5 gallons of water
- 1 cup shock solution to 6.25 gallons of water
- ½ cup shock solution to 3.125 gallons of water
- 4 tablespoons shock solution to 1.5 gallons of water

Mix it thoroughly and pour it between a couple of containers to help get rid of the chlorine scent. It is important to remember a couple safety rules when dealing with this chemical.

1. It will corrode metal, so keep it in plastic bottles. Use wooden spoons for mixing.
2. Keep it away from petroleum products so it doesn't ignite spontaneously.

As long as you keep the granules dry, they will last pretty much forever. Further, since you are using so little of it each time, even a small one-pound package will get you through a long-term crisis.

Disinfecting Method 6: UV Light

A disinfecting method that is relatively new to consumer use is treating with ultraviolet (UV) light. It is a very quick and easy way to disinfect a liter of water in about a minute. Using a UV portable water purifier, you place the end of the device into the water, press a button, and a burst of UV light is sent out, killing off anything in the water. There are a few different products on the market right now that work using this approach. SteriPEN

has the bulk of the market share. These products work very well, but they can be pricey. Be sure to read the package carefully and stock up on the necessary type of batteries for the unit you purchase.

You can use the same science to do it yourself, though it takes vastly longer. Solar distillation (SODIS) uses UV rays from the sun to purify water. Simply fill a clear (not green, it must be clear) plastic bottle with water and lay it down on its side in the sun, preferably on a dark surface. It will take about eight hours of fairly clear skies to purify the water, a couple days if the skies are somewhat cloudy. You can do this in bulk, lining up several bottles to purify at the same time. You want the bottles on their sides so as to expose as much surface area to the sun as possible. The dark surface under the bottles absorbs the sun's heat, transferring some of it to the water. The heat, combined with the UV rays, purifies the water. In an urban area, perhaps the best location for this would be on the roof of an apartment building as that will limit shade obstructions as the sun passes over.

DOES ALL WATER NEED TO BE DISINFECTED BEFORE USING?

Any water that will be consumed, or used for preparing food, brushing your teeth, or washing dishes that will be used for eating needs to be disinfected. Water to be used for sponge baths, washing clothes, or cleaning surfaces that don't come into contact with food will not need disinfected water. You may want to at least filter the water, though, as few people would really want to wash their hands in water with bugs floating on top.

SUMMARY

It is important to reserve your stored water and any water you disinfect for consumption. As we said at the beginning of the chapter, water is critical to life. Do everything you can to ensure you have a good supply of potable water during and after a disaster.

CHAPTER FIVE

FOOD STORAGE

In the aftermath of a disaster, you don't want to rely on outside assistance to keep your belly full. While relief agencies may eventually get some sort of "soup kitchen" arrangement set up, you want to be ahead of the game rather than standing in line for some meager rations. Stocking up on food, even just a little at a time, puts you in a much better position to provide for your family, no matter what circumstances you face.

Bear in mind, too, that you cannot expect to be able to serve five-course gourmet meals in a disaster. Instead, the purpose of food storage is to reduce what that great philosopher and honey connoisseur Winnie the Pooh would call, "the rumblies in your tumblies." Forget the diet plans and the low-carb/no-carb nonsense. Worry about being able to get to sleep at night without the missed-meal-cramps keeping you awake.

BEST FOODS FOR STORAGE

In the first day or two of an ongoing crisis, you'll want to consume what you can from your refrigerator and freezer before the stuff goes bad. Generally speaking, frozen food will stay frozen in a fully stocked freezer for about twenty-four hours, provided you aren't opening it very often. Get in the habit now of adding

Quick Tip

Fill empty space in your freezer with jugs of water. Not only does this help your freezer be more efficient, it will give you a twenty-four-hour buffer to keep food frozen if the power goes out. These jugs also add to the amount of water you have stored for emergencies.

jugs of water to your freezer to take up empty space. The more dead air there is in the freezer, the quicker the items will thaw if the power goes out. Plus, those jugs of water add to your overall water storage.

After you've consumed the fresh food, or it has passed the point of being safe to eat, you'll need to turn to foods that are shelf-stable and have a relatively long shelf life.

Store What You Eat, Eat What You Store

Don't waste your money purchasing food you don't like. Stick with foods you already eat and enjoy, concentrating on items that will last a while on the shelf. You know better than I or any other expert out there what your family will and will not eat. Yes, if a person gets hungry enough, they'll likely forget about being all too picky. But, the whole point here is to try and keep life as normal as possible during and after a crisis. Why put yourself or your family through more unpleasantness if you can avoid it?

Ease of Preparation

Do not plan on making any complex recipes. You aren't going to be whipping egg whites into peaks and then folding them into anything. At best, you are going to drop an egg into a glass of water to make sure it is still good (if it sinks to the bottom, it is good to eat), then crack it into a skillet, scramble it if you so desire. That's about as complicated as you should plan on being when it comes to off-grid food preparations. In fact, if

FIFO

FIFO stands for First In, First Out. Rotating your food storage is critical to ensure you don't end up with a ton of outdated food on your hands. Get into the habit of taking a marker and writing the purchase date on all canned and boxed goods before putting them away. When it comes time to make dinner, always grab the oldest products first.

a recipe involves more than about three different steps, forget about making it during an emergency.

Open and Eat. Start with foods that require absolutely no prep work before eating. Granola bars, dried fruits and nuts, peanut butter and crackers, that sort of thing. Having a stash of this stuff will go a long way toward getting you through a short-term emergency. Don't overlook basic comfort foods, either. Bagged popcorn, chips, chocolate, and a couple cans of soda are the makings of a fun little "power's out" party with the kids. They'll appreciate the treats and you'll like not having to figure out the best way to feed them a decent dinner. One night of junk food isn't going to kill anyone.

Heat and Eat. Next on the list are the "heat-n-eat" foods. These include canned goods like pasta, stew, soup, and vegetables. Yes, I know, the mere thought of eating canned anything might send foodies into apoplectic fits. However, a hot bowl of Dinty Moore beef stew beats a bowl of nothing but air. Also in this category are dehydrated soups like ramen noodles. If you have the means to boil water, which we talked about in chapter four, you have the ability to make soup.

Quick Baking Mixes. Sometimes overlooked are baking mixes. Any of the "just add water" varieties will do nicely. Avoid mixes that require the use of milk, eggs, and other ingredients. If the emergency lasts more than a couple days, you will appreciate the variety these mixes can provide. You can make pancakes in the morning, then do sandwich wraps in the afternoon or evening.

Can Openers

Don't forget to pick up a couple manual can openers! Even if you have one sitting in a kitchen drawer right now, buy another one to keep as a backup. Murphy's Law has a bad habit of popping in at the worst times and just when you need a can opener the most, that's when either you won't be able to find it or it will fall apart in your hands as you try to open something.

Trust me, while everyone else is scrounging their cupboards for bouillon cubes and condensed cream of mushroom soup, you'll be eating high on the hog!

Beverages

As you plan your food storage, don't forget things like drink mixes, tea bags, and instant coffee. Personally, I'm not a big water drinker so I like to have things like powdered juice to add to it. Coffee and tea will be important to those of you who are avowed caffeine addicts.

Vitamin Supplements

In the event of a fairly long-term event, a bottle of multi-vitamins would be advisable to have on hand as well. This will help prevent any nutritional deficiencies caused by lack of dietary variety. Scurvy, the bane of pirates everywhere, for example, is caused by a lack of vitamin C. While it certainly doesn't happen overnight, vitamin deficiencies can creep up on you without you realizing it.

Freeze-Dried Food

It also isn't a bad idea to invest in some food that is designed for extreme long-term storage. These freeze-dried items are the kind of food you can find in the camping section of most big box stores and outdoor retailers. Most of these foods just require the addition of hot water to rehydrate the contents of the pouch.

However, before spending a ton of money on this stuff, I highly recommend you purchase a few samples first and try them out. You may find you don't like the taste or the texture, or that the food doesn't agree with your stomach. To put it another way, experiencing negative issues with your digestive tract during a crisis is second only to experiencing the issue in the middle of rush hour traffic gridlock on the scale of things you really don't want to go through.

Should you decide to explore the freeze-dried option a bit, I highly recommend:

- Freeze Dry Guy, www.freezedryguy.com
- Nitro-Pak Preparedness Center, www.nitro-pak.com

MREs

Prepackaged foods called MREs, or Meals Ready-to-Eat, were originally developed for use in the military and, in recent years, have become commercially available. Some of the ones being sold online are actual military surplus but many are look-alikes. A full MRE consists of a variety of items packaged together, including a main dish, a side dish, crackers, some sort of cracker spread, utensils, and a flameless heater. Many suppliers online also sell just the entrées. The quality of MREs varies considerably, as does the cost. I recommend shopping around, comparing prices online, then purchasing one or two individual MREs and trying them before committing to buying case lots.

HOW MUCH FOOD SHOULD BE STORED?

This is sort of like those dreaded word problems in math class, where you are utterly convinced there just isn't enough information provided to determine the answer. Truth be told, no one knows what the future holds, despite what televangelists, alleged psychics, and the kook walking down the street carrying a sign that reads, "The end is nigh!" will tell you. The best answer is to store as much food (and other supplies) as you can afford.

Start with a goal of having enough extra food to last your family for a full seven days. For some, that in and of itself might be a big change. If you're accustomed to eating out five nights a week, you might not have much on your shelves at any given time. If you fall into that category, that needs to change! Sit down and write out a menu plan for seven days. Account for all meals, including snacks, and make sure you plan on all family members being present for each meal. Junior probably won't be heading off to football practice in the immediate aftermath of a disaster. Concentrate on foods that meet the guidelines we just discussed.

For example, for Day 1 you might plan on pancakes with canned peaches for breakfast, a light lunch of rice with canned chipped beef and canned peas, then chicken noodle soup (pouch soup mix with a can of chicken added) and dumplings for dinner. Snacks for that day could include crackers with peanut butter or perhaps dried fruit or trail mix. Actually writing out these menu plans will give you a good idea of just how much food you'll need to store for the week.

After you've met the one-week goal, extend it to two weeks, then a month, then three months. Keep adding to the storage until you feel comfortable you can feed your family through virtually any unexpected crisis. Such an emergency could include job loss or an unexpected expense, for example, a massive car repair bill. Having extra food stored will reduce your grocery expenses in tough financial times.

HOW CAN I AFFORD ALL THAT FOOD?

For most of us who live paycheck to paycheck, we just cannot reasonably expect to go out and buy enough food for a month or more in a single shopping trip. Instead, add to your storage a little at a time. If your local grocery store has a great sale on canned vegetables, grab a few extra to set aside. Sure, if you can afford to buy a case of them, go for it! But, even just a couple of extra cans each week will add up quickly.

It helps to spread out your food storage purchases over time. Add one or two extra items to your grocery cart each visit to the store. This lessens the impact on your wallet while you're building up your supplies.

Shop the sale ads and use coupons when it makes sense to do so. For example, let's say you have a coupon for fifty cents off two cans of name-brand stew. If that brings the price down below the sale price on the store brand, use it. Something to keep in mind is that the generic brands are often the exact same food as the name brand stuff. Not always, of course, but often enough to make it worth your while to explore those cheaper options.

Warehouse stores can also be a great resource, if you use common sense. I mean, no one really needs a fifty-five-gallon drum of barbecue sauce, no matter how cheap it might be. I'd also be wary of buying anything in the Number 10 size cans. Typically, these are sold to restaurants and such. While the price per ounce can be fantastic, keep in mind that for most foods, you'll need a way to keep the leftovers from going bad, such as refrigeration. If the power is out for an extended length of time, you'll only get one meal out of that big can and the rest will go to waste. But, if you have a large family, one that would probably eat everything in a Number 10 can in a single meal, this is a cost-effective approach.

Urban Food Production

One great way to reduce your grocery bill is to produce at least some of your own food. While urban preppers typically have small yards, you don't need vast acres of farmland to grow at least a little food. Even a small garden bed of sixteen square feet can produce a fair amount of food. The amount, of course, varies with what you decide to grow and the conditions of that particular growing season.

If you have not gardened before, I suggest you stop by a local garden nursery or the garden department of your local

Urban Foraging

If you know what you're doing, and know where to look, there are many edible plants growing wild in the city. However, urban foraging has a few unique challenges when compared to foraging out in the sticks. First, there is a strong possibility that pesticides and herbicides have been sprayed on plants growing in city parks and such. While some of those chemicals can be simply washed off the plants, I don't know that I'd want to bet my health on it.

Second, collecting plants in city parks and other public areas may be against the law. In the wake of a major disaster, enforcement of such laws may be overlooked but do you really want to be a test case?

If foraging for wild edibles is of interest to you, I recommend visiting your local library and checking out several field manuals and other books to assist you in learning how to identify the plants in your area.

Related closely to foraging is *gleaning*. This is where you visit farm fields and orchards, picking produce that has been left behind by the owners of the fields. This should only be done with full permission, of course. Gleaning can be a great way to help augment your food storage with fresh fruit and vegetables.

big box home improvement store. Talk to the people working there about the plants that grow well in your area. When buying seeds or seedlings, try to stick with *heirloom* varieties. These are plants that are pure strains, rather than hybrids. This means the seeds from the vegetables and fruits you grow can be planted next season. Hybrid varieties result in mutant plants that often don't produce edible fruits or vegetables.

I also recommend doing some research into square foot gardening. This is a gardening system popularized by Mel Bartholomew. It is designed to maximize garden production by dividing the garden into small sections and pairing up plants that complement one another. Pick up one of Bartholomew's books on the subject, then plan your own garden accordingly.

Container gardening is an option for those who live in apartments or otherwise don't have any yard space available. There is a wide range of planters and other patio containers available.

Purchase a few of them, as well as soil, from home improvement stores. Container gardening is also a great way to get around pesky homeowner association rules that forbid large gardens. Few HOAs will complain about a few planter boxes on your deck or patio.

WHERE DO I STORE ALL THIS STUFF?

One of the difficulties with food storage in an urban or suburban home is your space may be severely limited. If you're in an apartment or condo, you just aren't going to have as much room as someone who has a full basement under their home.

Fortunately, there are several places in even the smallest apartment where you can squirrel away goodies for a rainy day, without turning your pad into something that looks like it should be featured on *Hoarders*.

Under the Bed

The average can of soup or beans is about 3 inches in diameter. A queen-sized bed is 60 × 80 inches, not counting the frame and headboard. A bit of fifth-grade level math tells us that you could fit roughly five hundred cans of food under the bed. Of course, that will go down a little bit depending on how you store the cans, such as using a plastic tray or cardboard boxes. Even so, that's a ton of food in a pretty small space. Depending on how high your bed sits off the floor, you might even be able to double-stack the cans. Risers, found at most big-box retailers, raise the bed higher, allowing for more storage space underneath.

Granted, it isn't the best idea to have the entire floor under your bed covered in canned food, if only because of the difficulty of reaching and rotating it all. However, let's say you have one queen-sized bed and two double beds in your condo. You could put three hundred cans of food under the queen bed and 150 under each of the doubles. That still gives you six hundred cans of food!

Quick Tip

There is a wide range of plastic storage bins that are specifically designed for under-the-bed storage. However, most of them, especially the ones with wheels, aren't made to withstand the weight of canned food. They should still slide OK over carpet but if you have hard floors, put down an old bath towel first, then place the container on the towel. Pull the towel to slide the container out from under the bed.

Closets

Even the smallest of living spaces usually has at least one or two closets. Start by ditching the stuff in those closets that you really will never use again. The shoes that went out of style years ago would be a good start. Then, use the back wall of the closet for food storage. You could build shelves or install a pre-fabricated storage system. Really, though, just stacking a few cases of canned goods on the floor will work fairly well.

Basement

Many apartment buildings allow tenants a small amount of storage space in the basement. It often isn't a lot of space or very secure. Even so, this is space you can use for food storage. What you might consider doing is concealing the food from prying eyes. Rather than have your storage unit filled with cases that say Campbell's Soup on the sides, repackage the cans in a box on which you've written something like, "Grandma's shoes."

If you go this route, be sure to keep the boxes up off the floor. Basements are, of course, notorious for having damp floors.

Hidden in Plain Sight

A large Rubbermaid tub, filled with food or supplies, then covered with a table cloth or fabric makes a nice coffee table, believe it or not. You can do the same with a taller box or a few smaller boxes stacked together and call it an end stand. Get creative!

HOW DO I COOK FOOD DURING A POWER OUTAGE?

While it won't necessarily hurt you to open a can of chili and eat it cold, doing so certainly won't do much for your morale or your taste buds. Electricity is one of the first things to go in most disasters and microwave ovens as well as electric ovens and cooktops don't work so well without it. If you are fortunate enough to have a gas stovetop, you may be able to use it as long as the gas service is still working. Even if that is the case, though, you should be prepared for off-grid cooking.

Fortunately, there are a number of options available for cooking food when the stove burners and nuke machine aren't working.

Warning! Please note that none of the following cooking methods should be used indoors. Each should instead be utilized outside, on a patio or deck if not in the yard itself. Never run the risk of carbon monoxide poisoning!

Patio Grills

From the suburban homeowner to the apartment dweller, patio grills are likely the most common alternative cooking method to be found already in use. While we often think of grills as being used primarily for cooking meat and the occasional vegetable, you can, in fact, cook almost anything on a charcoal or propane grill.

That said, firing up the charcoal grill just to heat up a can of soup is rather inefficient. For smaller portion cooking, you'd be better off to explore some of the other options in this section. But, if a patio grill is all you have, so be it. Do what you can to increase the efficiency by boiling water at the same time or cooking several dishes at once.

If you plan on using a patio grill for off-grid cooking during an emergency, plan ahead and always make sure you have plenty of extra charcoal or at least one full propane tank in reserve. In a pinch, you could even use branches or wood scraps in the charcoal grill.

Patio fire pit

Patio Fire Pits

In recent years, these have become rather popular. In addition to providing nice ambience on a cool evening, they can be used in a similar manner to a charcoal grill. Pick up an old grill grate and stash it in the garage for later use over the fire pit. You can find old grates at rummage sales or even in the neighbor's trash if you keep your eyes open. Get a good fire going in the pit and let it burn down to coals. Place the grate across the top and you're ready to cook!

There are two different types of patio fire pits. The most common is the wood burning type and this is preferred over the gas models. In a pinch, you could even use charcoal in a wood burning fire pit. That's not a viable option with most gas-fueled fire pits.

Camp Stoves

A propane camp stove is going to give you the closest approximation to cooking on a regular stovetop. These come in dif-

Rob Byron © Shutterstock.com

Camp stove

ferent sizes, with one or two burners seeming to be the most common. A bonus is these units are portable and easy to use. Simply light the burner, adjust to how high or low you want, and cook away. The downside, though, is you must store fuel for the stove. These stoves and the required fuel can be found in the camping sections of big box stores and outdoor retailers.

Campfires

Many a hearty meal has been prepared over an old-fashioned campfire, of course, but, this requires both a clear spot in the yard and plenty of fuel. For those who've not cooked this way before, I highly suggest you become familiar with it through plenty of practice before the time comes when you truly need the skills. There is just as much art as there is skill to preparing a meal this way.

If you determine this is a viable method of cooking for your location, you could invest in a campfire tripod. These are found just about anywhere camping gear is sold. The tripod consists of three metal legs with a chain running down the middle of them,

suspending a cooking grate above the fire. The chain can be used to raise or lower the grate. They are very nice to have and also work well with patio fire pits.

Rocket Stoves

A rocket stove takes open-flame cooking to a whole new level. Essentially, a rocket stove consists of a burn chamber where the fuel is inserted coupled to a chimney. The updraft created in the chimney causes the flame to be much hotter and more concentrated than you'd have with a traditional campfire. As a bonus, there is almost no smoke generated once the fire is burning briskly.

The fuel used for a traditional rocket stove is small-diameter sticks and branches. Typically these are no wider than a couple inches in diameter. These sticks are fed into the combustion chamber at the bottom of the stove.

The Zoom Versa rocket stove by EcoZoom is my personal favorite. It gets high marks not only because it is very sturdily constructed but it is well insulated, preventing accidental burns if you inadvertently brush up against it. It also comes with a windscreen that attaches to the bottom of your cook pot. This allows the heat to be directed at the bottom and sides of the pot, with very little going to waste. You can find this stove at www.ecozoomstove.com.

Spirit Stoves

These are small stoves, usually about half the size of a soda can that use denatured alcohol for fuel. Most of them will also burn methanol, commonly sold as the brand name HEET, an additive for a vehicle's fuel tank. While rubbing alcohol would work for fuel, it generates a lot of soot. The basic spirit stove consists of a small fuel reservoir with holes punched around the rim that act as the burner. Add fuel through the central hole or group of holes in the middle of the container. Then cover this central hole and light the fumes coming out of the rim.

A small one-piece spirit stove

Spirit stoves work very similarly to cans of Sterno. They're the same basic concept—a can of fuel that is lit.

Because there is no real structure to the burner, you'll need to provide a means to support your pot or pan. Three stones placed in a triangle shape around the burner, with the pot resting on top of the stones, works well. Another option would be to use a couple of bricks, one on each side with the burner in the middle. The pot should be placed on the bricks, not on the burner itself.

Buddy Burner

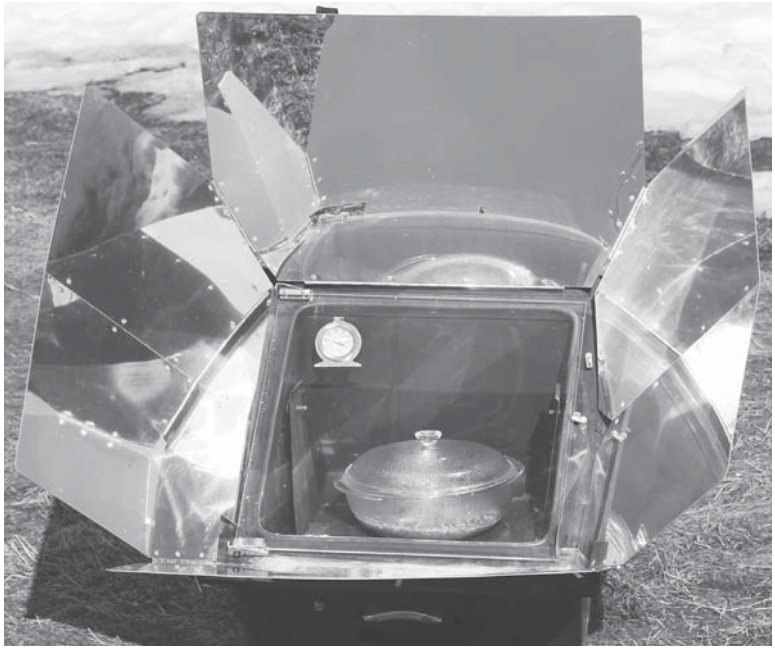
The buddy burner is an easy DIY project. You'll need an empty and clean tuna can, corrugated cardboard, and a few old candles or wax crayons. Cut the corrugated cardboard into strips that are just slightly narrower than the depth of the can. When you cut the strips, you want to cut across the corrugation, so the long side of the strip shows the "holes" of the corrugation. Coil these strips in the can, starting from the inside edge and working your way toward the middle of the can. You want the entire can filled with the cardboard strips.

A lit buddy burner

Next, melt the candles. You can use an old, beat-up double-boiler you've picked up at a thrift store (don't use your good one) or you can make one yourself by using an empty and cleaned out soup can placed in a pot of water. Fill the can about two-thirds full with broken candle pieces or old crayons. Heat the water to just below boiling and stir the wax to break up the clumps as it melts.

After the wax is fully melted, pour it over the cardboard, going slowly and letting it soak in. You could also insert a few pieces of candlewick into the wax, should you wish to do so, before the wax firms up.

After the wax is solid, the buddy burner is ready for use. Light the wicks or just lay a lit match on the burner and it will light the wax. Just like with the spirit stove, you'll need a few rocks or something to support your pot over the flame. Don't place your pot directly on the burner. When you're done cooking, smother the flame with a piece of aluminum foil or a lid to a cooking pan.



Solar oven

Solar Ovens

Provided you have the time to wait, solar ovens are a great option if you are looking to keep a low profile. All solar ovens work on the same principle, focusing the sun's rays toward a central point where you've placed the food to be cooked. Search Google for *solar oven* and you'll find a ton of plans for building a simple solar oven out of a cardboard box. These ovens work well and are very cheap and easy to build.

The downside is they take some time to work. Figure at least a few hours if not longer, depending on the strength of the sunlight. And, obviously, these ovens aren't going to work after the sun goes down. You'll also need a location that receives a good amount of direct sunlight. In other words, this isn't something that will work well by placing it on a covered patio area. But, if you have a sunlit yard or can access the rooftop of your apartment building, you should be in business.

Can I use my regular cookware?

Bear in mind that with most of the cooking options listed earlier, you won't be able to use what you might normally use for pots and pans. Simply put, many modern pots and pans aren't designed to withstand the higher heat you'll be using. Plastic handles will melt, for example, and thin pan bottoms will not give you good results.

Hit your local thrift shops and purchase a couple pans that you can set aside for emergency use. Look for thick bottoms and metal handles. If you come across anything cast iron, snap it up! Cast-iron pots work exceedingly well when cooking over any sort of open flame. They'll likely need to be cleaned up and properly seasoned, of course.

While just about every home likely has insulated pot holders or oven mitts, consider picking up a couple to keep with your stash of emergency cookware. When you are cooking over a flame with a metal-handled pot, you're not going to want to grab that handle with a bare hand.

You'll also want to use long-handled spatulas and tongs when cooking over an open flame. If you already have those for using with your patio grill, you're all set. Otherwise, add them to your thrift store shopping list.

You might also consider setting aside a couple stacks of paper plates and bowls to use when eating meals. Given how valuable water will be in an emergency, you won't want to have to use any for washing plates and such if you can avoid it. Of course, you could also opt to eat right out of your pot or pan, but that doesn't work out too well with a large family. Silverware doesn't take much water to wash, but you could include a box of plastic forks and spoons, if you were so inclined.

It is also a great idea to include a roll or three of aluminum foil with your emergency cooking gear. You can use it to line your pans to make for easy clean up as well as use it in place of the pan itself. Cut up some potatoes, onions, and peppers, toss

them in a pocket of foil and drizzle with olive oil. Put this foil packet on the fire for twenty to twenty-five minutes and you have one heck of a great dish.

SUMMARY

Assembling a food storage system can seem like a daunting task. But, if you take it a little at a time and plan ahead, you'll be just fine. Remember, the goal is to keep bellies full, preferably with mostly nutritious food. Calories are not the enemy in a crisis; they are the energy that keeps your body moving.

CHAPTER SIX

SANITATION, FIRST AID, AND SHELTER

You cannot consider yourself adequately prepared for any disaster without taking into account matters of sanitation and health. All the whiz-bang survival gadgets on the planet won't help you if you're laid up with an infected cut on your leg. Not to mention, having the ability to keep at least marginally clean will go a long way toward improving morale. It's bad enough to be stuck at home for several days with no electricity and little food and water, but add in the stench from body odors and waste, and you have a recipe for extreme depression.

WHERE WILL WE GO WHEN WE HAVE TO, UM, GO?

City sewer and water service is likely going to be non-existent after a disaster. Proper waste disposal is necessary for health reasons and will still need to be achieved. Improper sanitation practices can lead to the spread of many deadly diseases, including dysentery and cholera. The vast majority of flush toilets do not truly need water pressure to operate. The water pressure is only necessary for automatic filling of the tank. You can refill that tank with any water you have on hand—from rain barrels, pools, whatever. However, doing so will use up precious water that you may need for hydration. Plus, if city sewer systems

aren't working properly and are backed up, flushing the toilet may just result in more mess that will need to be cleaned up.

Fortunately, there are several options available that will be far more comfortable than just squatting over a hole you'd dig in the backyard.

Alternate Toilets

The first alternate toilet option is to line your toilet bowl with a heavy-duty garbage bag (construction grade) and replace the bag as needed. You'll first need to drain the water from the toilet, of course. You can either scoop it out or flush it out. To flush it out, start by turning the water off if you still have pressure. There should be a small hose running from the toilet tank to a valve coming out of the wall. Turn the valve off, then flush the toilet as you normally would. After the water in the tank has refilled the toilet, flush it again. You should then be left with just a small amount of water in the very bottom of the toilet bowl. Use a rag or sponge to soak up the remaining water.

Human waste is heavy, perhaps heavier than you'd first imagine. Without getting into the nasty details, suffice to say that the average bowel movement could weigh in the neighborhood of three to five pounds. In other words, you aren't going to want that garbage bag to get overly full before you replace it.

The next option is to use a five-gallon pail, the sort you can find for cheap or even free at restaurants, bakeries, and delis. If you shop around at camping stores, you can even find toilet seats that are specially made to attach to these buckets. Otherwise, you can use the seat from your existing toilet seat, though it won't sit perfectly on the bucket. You can either line the bucket with a garbage bag or fill it about a quarter-full with cat litter or sand. If you go with the latter option, keep a supply of litter or sand nearby so people can cover their leavings when they're done relieving themselves. Again, this bucket is going to get heavy so be sure to empty it periodically.

With any of the above solutions, you might also consider keeping a box of baking soda or a container of powdered laundry detergent nearby. A little sprinkle will help keep odors down.

You could also purchase one of a wide range of available chemical toilets sold in sporting goods stores. Be sure to stock up on the chemicals used in that brand of potty.

Disposing of the Waste

If this is a short-term disaster, one that will obviously be resolved in a matter of days, you could place the bags of waste into your trashcans. However, if it appears sewer and water services won't be available any time soon, say, within a couple of weeks or so, you'll have to explore other waste disposal options.

If you have a decent sized yard, and your yard is well away from natural water sources, such as rivers, streams, and ponds, you might consider burying the waste. Dig a hole at least three feet deep and put the bags in. If you have some type of gravel available, put down a layer of it on top of the bags, then cover it up. Make sure the hole is at least a few hundred feet away from any potential natural water source to avoid is contaminating ground water.

Building a latrine is another possibility, though a bit more labor intensive. Dig a trench in the ground at two to three feet deep and about eighteen inches wide. Leave the dirt you've removed nearby. To use the latrine, you straddle the trench and do your business, then scrape or shovel some of the dirt over what you've left behind. Using clotheslines to suspend old bed sheets or a shower curtain along the trench can afford some measure of privacy. While a trench latrine won't be much fun in inclement weather, it is something to consider if you are without water for a long period of time.

Burning it is another option. Get a fire going and put the bags on, one at a time. This isn't going to smell good, but it will serve to kill off bacteria and germs present in the waste.

What if we run out of toilet paper?

Ideally, you'll have stocked up on plenty of toilet paper to see you through at least a few weeks. If you do run out, though, you have a few options.

Perhaps the best solution is to take old cotton T-shirts and cut them up into squares about four inches to a side. Place a bucket with a lid on it next to the commode. Into the bucket, put in a strong bleach and water mix, maybe a 1:1 ratio. As the cotton wipes get used, toss them into the bucket. Wash them for reuse. (We'll get to laundry instructions in a bit.)

Baby wipes are another great alternative, and not only for cleaning dirty bottoms. They work well for quick sponge bathing. Even if you don't have babies in the home, I suggest you pick up a box or two to stash away in case of emergencies.

Back in the old days, people used old catalogues and newspapers. This is still a workable solution today, though not nearly as soft as real toilet paper. Still, any port in a storm, right?

MAINTAINING HYGIENE AFTER A DISASTER

If you luck out and the faucets are still running, great! But, don't count on it. Therefore, taking baths or even long showers aren't going to be options.

Frequent Hand Washing

Your first line of defense should be frequent hand washing. If you are unable to do anything else, do everything you can to keep your hands clean. On average, we touch our own faces about sixteen times an hour, or roughly every three minutes. Every time we do, we transfer germs and bacteria from our hands close to our eyes, nose, and mouth, all of which are openings into our bodies.

If you don't have running water, set up a bowl or bucket with a bottle of water next to it, along with a bar of soap. You might also consider stocking up on a few bottles of hand sani-

tizer. Although long-term use of these products can lead to some immune system issues (because the body grows accustomed to not having to fight off even the very minor bacteria and germs we encounter on any given day), they are just fine for short-term use. Bear in mind, though, that due to the alcohol used in them, a side effect is very dry skin. You might want to add a tube or three of moisturizing lotion to your survival supplies to help offset that problem.

Bathing Options

Unless you have a large source of reasonably clean and uncontaminated water, you'll be limited to sponge bathing to preserve your water supply. While not nearly as refreshing as immersion into a tub of just-shy-of-scalding water, it will still provide you with a decent level of cleanliness. Another water-saving option is to use baby wipes or body wipes. You could buy these in bulk on sale and keep them with your emergency supplies.

If, and only if, you have a large source of uncontaminated water, such as several rain barrels or perhaps a pond nearby, there are a few different things you could do to provide for the means of bathing. The first is to purchase and set up what is called a camp shower. You can find these at almost any sporting goods store. It consists of a black plastic bag that you fill with water and hang from a tree or other support. Left in the sun for a while, the dark color absorbs the sun's energy and heats the water. At the bottom of the bag is a short hose you use to pour water onto yourself. The water isn't going to be steamy hot, of course, but warm is better than cold.

Another option is to heat buckets of water over a fire, then either pour them over yourself or have someone else do it for you. If you truly long for a "shower" effect, have them dump the water into a colander you or they hold over your head.

If you have a large washtub, you could fill that with water and heat it before sitting down. I do not suggest building

a fire under the washtub as that could lead to burns. Instead, heat baseball-sized rocks in a fire, use tongs to remove them and place them into the water. As the heat transfers from the rocks to the water, remove them and replace them with freshly warmed rocks. It won't take too long for the water to reach a comfortable temperature. Warning: Place only dry rocks into the fire. Wet rocks could explode in the fire as the water inside any cracks in the rock turns to steam.

Naturally, this all presupposes you've stocked up on bars of soap and a few bottles of shampoo. In a pinch, you can usually use bar soap to wash hair as well as skin, though it might lack that "full body" feel you're used to, particularly if you have longer hair.

Laundry

While most of us have enough clothing in our dressers and closets to last us at least a week or two, if the disaster is prolonged you will want to have a way to wash your clothes. For smaller items, such as socks and underwear, this could be done in a small bucket of water. The water need not be disinfected but the cleaner it is, the better. Add a bit of laundry detergent and scrub the clothing by hand, using a stiff brush for any ground-in dirt. Rinse the clothing well, wring out as much water as you can, and hang the clothing to dry.

For bulkier items like shirts and jeans, a little mechanical help will be desired. Obtain a five-gallon pail from a local restaurant and wash it out. While you're out getting the bucket, stop and purchase a new toilet plunger, the old-fashioned type with the big rubber dome on the working end. Using a sharp knife or a hole saw, cut a hole slightly larger than the size of the plunger handle in the center of the bucket lid. Use a razor knife or box cutter to cut four holes in the rubber end of the plunger. These holes should be about the size of a quarter and spaced evenly. To use this makeshift washing machine, fill the bucket about halfway with water and add detergent. Toss in a pair of

jeans or a couple of shirts, then set the plunger into the bucket. Thread the plunger handle through the lid and clamp the lid on tight. Use the plunger to agitate the clothing in the bucket, moving the handle up and down and side to side. Check the clothing periodically and when it has been cleaned, remove the clothing, wring it out, and rinse it well. Wring out the rinse water from the clothing, then hang the clothing to dry.

Dental Care

There are two very good reasons to make sure you plan ahead for taking care of your teeth after a disaster. First, you don't want to worry about trying to find a dentist to take care of a mouth infection following a disaster. Second, many potential crises will result in folks spending an awful lot of time together in close proximity. Put together a few folks who haven't brushed their teeth in several days and the funk will be almost visible in the air.

Make sure you have set aside at least one toothbrush, still in the package, for every member of the family. Add a few more, in case you end up with more people in the house than you'd originally thought would show up. A couple extra tubes of toothpaste and some spare packages of dental floss are also recommended.

Personally, I also like to have an extra bottle of good quality mouth rinse. Not only does it help to further cleanse the mouth and reduce possible bad breath, it can save you from having to use one more mouthful of precious water to rinse after brushing.

MEDICAL AND FIRST AID

In any disaster scenario, there are bound to be injuries, both small and large. Further, even if someone is in relatively decent health, stress and anxiety can suppress the immune system and leave that person susceptible to illness. Therefore, you're going to want to stock up on at least a few basic medical supplies. The immediate aftermath of a disaster is a really bad time to need to run to the doctor or emergency room, if you can avoid it.

However, all the medical gear in the world won't help you if you don't know what to do with it. Check with your local Red Cross office (redcross.org) and see when they are next offering first aid courses to the public. Failing that, get in touch with your local Boy Scout troop and find out where they have been going for their first aid training. If you have a career college or technical school in your area, check their website for course offerings for paramedics or emergency medical technicians. While pricier than the Red Cross courses, this EMT and paramedic training will have much more depth and information.

WHAT SHOULD I HAVE IN A BASIC FIRST AID KIT?

Protection From Biohazards

One of the rules of first aid is to protect yourself first. What that means is to make sure you avoid infecting yourself with any possible bloodborne pathogens or other nasty stuff as you render aid to the patient. With that in mind, pick up a box or two of nitrile gloves. Don't get latex in case of allergies.

You should also purchase at least one box of N95 masks. These are special masks that are rated to prevent more than 99 percent of bacteria and germs from getting through. They are a bit pricier than just basic surgical masks, but the added protection is important. In the event of a pandemic situation, these masks can help prevent you and your family from catching airborne disease.

Bandages and Wound Care

Your first aid kit should contain items you'll need to treat the most common types of injuries found during and after a disaster—lacerations, punctures, and bruises. Therefore, a top priority is items to help with wound cleansing and dressing. You'll want a bottle or two of hydrogen peroxide, rubbing alcohol, cotton swabs and balls, and a jug of purified water. When presented with an open wound, such as a cut, clean it out as best you can to prevent infection.

After the wound is clean, you'll need adhesive bandages, gauze pads, rolled gauze, and medical tape to dress the injury. The wound needs to be covered to prevent possible infection. The dressing on larger wounds will probably be changing multiple times a day, so you'll be going through quite a few bandages for only a single injury. Stock up now to make sure you have plenty on hand and available to you. Consider tossing into the kit a package or two of generic, non-scented sanitary napkins. These work very well as a dressing for bleeding wounds as well as for padding when a wound needs to be splinted.

Other items to include are:

- thermometer, preferably an old-fashioned glass one. If you use a newer, electronic thermometer, be sure to have a backup non-battery powered one just in case.
- irrigation syringe to help clean deep wounds
- eye wash or saline solution to remove debris from eyes
- small magnifying glass and tweezers to remove splinters and stingers
- chemical ice packs for swelling injuries, whether from insect bites or bruising
- antibiotic cream, such as Neosporin

On top of all these supplies, have at least one good first aid manual that clearly outlines step-by-step instructions on how to treat common injuries. In my opinion, one of the very best manuals available is *The Survival Medicine Handbook: A Guide for When Medical Help is Not on the Way* by Joseph Alton and Amy Alton.

Over-the-Counter Medications

There are several types of over-the-counter (OTC) medications you should keep with your first aid supplies.

Fever Reducers and Pain Relievers. Acetaminophen, ibuprofen, and naproxen are the three most common ones. Personally, and I'm no doctor, just speaking from experience here, I find

Should I Purchase a Suture Kit?

Sutures are stitches that hold the sides of a wound together. You can buy suture kits that contain a needle and thread specially designed to stitch together skin, and this sort of product has become very popular among many preppers. However, owning the gear and having the skills necessary to use it are two different things. Just because you have a special needle and some thread, doesn't mean you'll automatically be able to stitch up any major wounds. The only time I'd recommend the purchase and use of such a product is if you've received training in how to properly suture a wound. Improperly closing a wound can introduce bacteria into the wound and then trap it in there to grow into a nasty and even potentially fatal infection.

ibuprofen to be a stronger pain reliever than the others, while acetaminophen works great on fevers. Choose whichever one(s) your family is used to using.

Lidocaine. This is sold in small tubes for the relief of tooth pain. If you've ever had a bad toothache, you know just how awful of an experience it is. While it might not be life-threatening, it will certainly make you miserable. Clove oil is another option for this situation.

Anti-Diarrhea Medications. Many people experience an upset stomach when under stress. Not to mention, you run the risk of ingesting contaminated water or outdated food at some point during an emergency. Stock up anti-diarrhea medicines (brand names Imodium and Pepto-Bismol). Along these same lines, antacids are also a welcome addition.

Prescription Medications

We live in a day and age where it seems like almost everyone is taking a prescription medication for something. When preparing for a disaster, the first step is to determine which prescription medications are truly life-preserving. Concentrate on those first, then work on the others.

The goal is to have at least a full thirty-day supply of these medications on hand at all times. More would be better, of

course, but a month supply is probably doable for most people. Explain to your doctor that you are concerned about the possibility of not being able to obtain a refill in the event of a weather emergency or other crisis. Thankfully, many physicians today understand the need for a backup supply of medications and are open to the idea, at least for meds that don't fall under the narcotic label.

Failing that, you can build up at least a small supply by refilling your prescription as soon as it is available, commonly within a few days of when your current supply would run out. Doing this nets you, say, enough extra meds for two days. Always take the oldest meds first and *never miss a dose*. At the end of the next cycle, refill early again. Now you have enough for four days. Keep at this and you'll slowly build up to a couple weeks and eventually a month.

Diabetes and Insulin. If someone in your house has type 1 or type 2 diabetes, keep a supply of test strips as well as at least one backup test unit (with extra batteries) with your first aid supplies. If you're insulin-dependent, talk to your doctor about the need for a backup supply of insulin. To keep it fresh longer, insulin should be kept cool. This can be a problem when refrigeration isn't working. Fortunately, there is a line of products produced by a company called FRIO (www.diabetesfrio.com). They make several different sized insulin wallets and carrying cases that, by simply adding water, will keep insulin cool for long periods of time.

CLIMATE CONTROL

Mother Nature is a cruel mistress, often adding insult to injury. It is bad enough to have your town flood after torrential rains, but the days after are often filled with high temperatures and humidity so thick you can cut it with a knife. Blizzards are not usually followed by warm spring breezes either.

In today's modern world, we are accustomed to keeping interior temperatures at a certain level of comfort. But, when

disasters strike, utilities are among the first things to go, leaving us fending for ourselves when it comes to keeping warm or cooling off. For most of us, our comfort lies within a temperature range of about 65°F (18°C) to 80°F (27°C). If our world gets much above or below those temperatures, we are either seeking a sweater or we're sweating.

Even if we're a bit uncomfortable, we can usually make it through for a day or two. However, when we start dealing with temperature extremes, we can begin to suffer some rather serious health issues. Therefore, it is important to plan ahead for at least some primitive methods of climate control.

HOW DO I KEEP WARM WHEN THE POWER'S OUT?

Hypothermia is an emergency medical condition in which your body loses heat faster than it can generate it, with internal body temperatures falling to below 95°F (35°C). Symptoms of hypothermia include violent shivering, mental confusion, and labored movement. Contrary to popular belief, hypothermia doesn't require absolutely frigid temperatures to happen. Even relatively mild temperatures of around 50°F (10°C) could lead to health issues if the person isn't properly dressed or has wet clothes.

The first line of defense, so to speak, is to stay indoors when the weather is cold. Even if the furnace isn't running, you'll be out of the wind and rain or snow. Fortunately, there are several means of keeping warm indoors if the utilities aren't working.

Extra Clothing and Blankets

Most people likely have closets full of clothing sufficient for dressing in layers. Now is not the time to wonder if the blue cable knit sweater goes with the wool trousers. Dressing in layers traps air between the clothing, which warms and insulates you. While it is something of an old wive's tale that we lose the majority of our body heat through our heads, wearing a wool cap will help keep you warm. Having a few extra blankets stocked away in

a closet is a great idea as well. Pile them on and pretend you're having a slumber party.

Huddling Up

Speaking of slumber parties, try to keep everyone in the same room. Pair up and hudde together under blankets. The body heat will help a great deal with offsetting cold temperatures.

Insulate the Room

Cover windows with bubble wrap, blankets, or rigid insulation cut to fit. If the room has tile or hardwood floors, cover them with blankets or throw rugs. Hang blankets over the doors and doorways. Since the furnace isn't working, close off the vents in the room. All of this serves to insulate the room, keeping as much heat generated by your body inside the room and helping to prevent cold air from coming in from outside.

Hand and Foot Warmers

You can find hand and foot warmers at many outdoor and sporting good stores. These small packets, when removed from the plastic wrapping and shaken, heat through a chemical reaction. They typically stay warm for at least a few hours. You can also find battery-operated socks at many of the same stores. These will heat up when turned on.

Candles and Lamps

You may be surprised at just how much heat a few candles or a hurricane oil lamp can generate. Of course, you must be careful with any sort of open flame and ensure you have proper ventilation. Never go to sleep with candles or a lamp burning!

Fireplaces

Fireplaces are great for creating a romantic atmosphere but not so hot at keeping a room heated. Most of the heat generated

Insulating Pipes

During extreme cold, it is important to ensure that the pipes in your home don't freeze. This happens most frequently with pipes that run along exterior walls and in unheated basements. Be sure the pipes are covered with foam insulation to help prevent freezing if the furnace goes out. You should also open kitchen and bathroom cabinets to let warm air get to those exposed pipes.

Another thing you can do to prevent freezing pipes, as long as you have running water, is to let a trickle of water run through them overnight or when the temperatures truly plummet. While wasteful, this does work in many cases.

by the fire goes right up the chimney. However, that's not to say they are utterly worthless. If you have a working fireplace, always keep a supply of wood on hand. (Don't assume that just because you have a fireplace in your home it is safe to use. Have it properly inspected by an expert well before you might need to use it.) Huddling up next to a roaring fire will indeed fight chilly nights. *Never* try to burn wood in a gas fireplace. Very bad things will happen as a result.

KEEPING COOL

Hyperthermia is, as the name suggests, the opposite of hypothermia. Rather than being too cold, the body is too warm. As the body absorbs or produces more heat than it can get rid of, the body's internal temperature rises. This leads to hot, dry skin, nausea, low blood pressure, and ultimately unconsciousness and possibly death.

Being too warm for long periods of time, even if it doesn't rise to the level of heatstroke or hyperthermia, leads to exhaustion as the body wears itself out trying to cool down. This is particularly true when the temperatures don't fall appreciably at night. The body is unable to rest sufficiently in those conditions.

There are, however, at least a few things you can do to help cool off when the air conditioning isn't cooperating with you.

Limit Activity

If there are chores or other things that absolutely must be done, try to get them handled in the early morning hours, before the sun heats up the day. Or, save them for late evening as things cool down a bit.

Open Windows

If you have windows that face away from the sun, open them in the morning or evening. Ideally, you'll be able to open windows in a few different rooms, allowing for cross-ventilation. These breezes, while seemingly slight, can work wonders in cooling down the interior of the home.

Spray Bottles

You can find an assortment of different spray bottles in the health and beauty department of most big box retailers. Fill them with water and spray the back of your neck, your chest, and face. The evaporation will help cool you down.

Cold Packs

Many first aid kits include cold packs, which are activated by breaking a bubble inside the pack. While the intended purpose is for treating bruises and such, a cold pack placed on the wrist will cool you down rather well.

Dress Appropriately

Cotton fabrics are generally cooler than synthetics. Worn loose, they allow for evaporation of sweat, which helps you to cool down.

SUMMARY

Planning ahead for proper waste disposal as well as stockpiling necessary medical supplies are vitally important. If you or a family member becomes ill or injured, that will add stress to an already demanding situation. While matters of hygiene may

seem on the surface to be more akin to luxuries than necessities, proper hygiene is directly related to overall health. Plus, there is a strong mental component at work as well. Morale will be greatly improved if you and your family have the means to keep at least somewhat clean. It is also important to plan ahead for at least primitive means of keeping warm and keeping cool as necessary.

CHAPTER SEVEN

SECURITY AND DEFENSE

For some preppers and survivalists, issues of security and defense seem to be the primary focus of their planning. These areas do deserve serious consideration but, at the same time, they aren't necessarily any more important than planning for food and water. Proper disaster planning means all the components of the plan work together. Your security measures are there to protect your supplies, to ensure they are there when you need them. Your supplies, in turn, afford you the strength to implement your defense plans. We need to first look at the risks and threats we will need to defend against before determining the best ways to plan those defenses.

SECURITY THREATS IN URBAN AREAS

Sad as it is to say, the first risk you may face after a disaster will be the people surrounding you. If they have any reason to believe you have more food, more water, more anything than they have, you can count on them knocking on your door. Sure, they may first try to prey upon your sense of friendship and compassion. Sooner rather than later, though, those gentle inquiries may turn to incessant pleading. As desperation sets in, pleading will turn to outright taking, through violence if they feel it necessary.

On top of neighbors and friends, there will almost certainly be those who try to take advantage of the general lack of law and order. These are the type of people we often see in disaster news footage, looting stores and generally causing trouble wherever they go. You need to plan ahead for the possibility that their travels will take them to your neighborhood at some point.

There is also a possible risk from authority figures. It would not be unheard of for those who are in charge to decide they need to confiscate "hoarded" supplies to redistribute them to those in need. While humanitarian on the surface, by and large these sorts of programs do little to truly help anyone other than those who run the programs.

AVOID BEING A TARGET

First and foremost, do what you can to not let on that you are prepping for anything. This is what we call operations security, or OPSEC. If you come across an incredible deal on canned goods and buy a rather large quantity, don't ask your neighbor to help you lug the six cases in from your car. Try as you might to come up with some plausible reason for buying it, odds are pretty good that he or she will remember those canned goods if the grid goes down and they are looking to feed their family.

Similarly, don't leave umpteen cases of water cluttering up every corner of your apartment. Not only is this unsafe and not all that pleasing to the eye, casual visits from neighbors will result in them knowing just where to head when they get thirsty.

Do what you can to keep your preps under wraps. If you live in an apartment with a basement storage area, hide your goodies in boxes or under blankets. Use the back of closets or the space under beds. Your hiding spaces may not hold up under a thorough, diligent search, but if you can keep people from thinking you have supplies stashed to begin with, that's half the battle.

After a disaster, it's important to not let on that you are any better off than anyone else. Dispose of your food wrappers by

burning or burying them rather than letting bags of them pile up outside. Keep your shades drawn to prevent casual (or maybe not so casual) peeks inside. Purchase a few rolls of landscape fabric. Use it to cover the inside of any windows you don't end up boarding over (more on that in a bit). The fabric works very well at preventing light from shining through, which helps keep people from seeing in at night. The bonus is that the fabric has tons of little, tiny holes that you can use to see out of as needed.

If some sort of aid becomes available, such as a soup kitchen, don't be the only person in the neighborhood who doesn't show up. I know that seems wrong, in that if you have enough for you and your family, let the donated stuff go to those who really need it. But, who's to say that aid will last throughout the duration of the crisis? It might be that those meals allow you to extend your own supplies until such time that you're back on your feet. If it makes you feel any better, perhaps you can figure out a safe way to donate a bit back to the aid providers.

This extends beyond food, too. If you are the only one around with clean hair, a scrubbed face, and freshly laundered clothing, you're going to stick out like a shiny penny. Remember, for most people, perception is reality. Avoid doing anything at all that will cause you to stick out from the crowd. In every way possible, you want to just blend in.

Would it be a good idea to make my home look abandoned?

The problem with this approach is it will only work on people who don't already know you are there. Your neighbors won't be fooled since they will likely still see you there, day after day. So, while there are some experts out there who advocate painting your home to look as though it is nothing more than a burned out hulk, I disagree.

Remember when we talked earlier about the most likely risks you have to security? While looters may show up, it is those who live closest to you that pose the biggest threat.

What about tagging my home so it looks like FEMA has already searched it?

This is another idea I've seen floating around the various survival message boards and other sites online. FEMA and other disaster response agencies utilize a code of sorts that they paint on the door or outer wall of a dwelling after it has been searched. It commonly looks like a large X, with symbols or numbers surrounding it. The information communicated by these symbols includes the date and time of the search, the team that did the search, and what was found during the search. There are some variations to the code but for our purposes, that explanation will suffice.

On the surface, it sounds like an interesting approach to camouflage in that it would seem to indicate there's no need for anyone to enter the building. The problems, though, are twofold. First, the presence of such a code on a building might actually attract looters, who assume the building is truly abandoned. This could invite more trouble than it is worth. Second, those who legitimately use those codes know the teams work in more or less logical order. Spotting a dwelling in the middle of the block that has already been tagged might raise suspicion.

SECURITY PLANNING

Try to think of security in terms of layers, like an onion. At a minimum, there should be three layers to your security plan—perimeter defense, structure hardening, and personal space.

What is perimeter defense?

Your perimeter is the area extending from the walls of your home, going outward as far as you can reasonably view. For some, that means their front and back yards, from the sidewalk in front to the lot line in back. For others, this might only realistically include the small courtyard in front of their building and the alley at the rear.

The idea behind perimeter defense is to provide you with something of a cushion. The perimeter should be seen as sort

of a no man's land, where you have the opportunity to dissuade visitors before they are on your doorstep.

A key element to security is time. You want to do everything you can to decrease the amount of time someone could be in your perimeter before you become aware of them. Conversely, this means that the earlier you detect their presence, the more time afforded to you to take whatever steps you deem necessary to protect you and yours.

How can I best defend my perimeter?

Perimeter defense starts with early warning systems, also known as alarms. Remember, not every single human being who strays into your perimeter is necessarily a "bad guy." Therefore, while your first instinct might be to load the perimeter with man-killing traps, that might not be the best idea, particularly given that once law and order are re-established, there might be questions about what all occurred in your area.

Don't get me wrong, there are times when you may need to take decidedly serious action against possible intruders, but that might not necessarily be your first line of defense.

Given that the likelihood of a power outage being part of the overall disaster, relying upon alarms that run on electricity is not the best plan. Fortunately, there are at least a few low-tech approaches you can take.

Trip wires have been used for ages and for good reason. Even with all our technology, they still work fairly well. Just a single strand of fishing line or other very thin cordage can provide you with a heads up to potential trouble. Run the trip wire across a likely route to your home, such as in an alley or even an apartment building hallway. It doesn't even need to be in a location where it would actually be tripped upon by someone. This sort of alarm trigger works very well if it is just attached to some small obstacle. The intruder moves the obstacle, say a couple of empty cardboard boxes, and this causes the alarm to sound.

The alarm itself could be nothing more than a bunch of empty cans, filled with some pebbles and stacked precariously. The trip wire pulls on the bottom can, causing the stack to fall and make noise.

You could rig up a variation of a trip wire on the exterior door of your building, too. Screw a small eye-bolt into the bottom of the door on the inside. Tie one end of the trip wire to a small hook and attach the other end to your alarm. Hook the line on the eye-bolt and if someone pulls open the door, they set off the alarm.

One trip wire alarm that I'm familiar with and would readily recommend is the Brite-Strike Camp Alert Perimeter Security System. It consists of a small plastic unit, roughly three inches long and one inch wide. On one end of the unit is a metal pin with a loop attached to it. The unit is attached to a wall or other stable object and the trip wire attached to the pin. When the pin is pulled by someone hitting the trip wire, the unit emits a 135 decibel alarm. This is just a bit quieter than a jet engine at a distance of 100 feet. The cost of the Brite-Strike Camp Alert Perimeter Security System is about forty dollars. You can find it online at brite-strike.com.

What about booby traps?

Again, avoid using anything that causes injury unless it truly is a societal collapse situation. It makes very little sense to manage to survive a disaster to only lose everything in a later lawsuit filed because of the guy you killed in your front lawn whose only crime was trying to shortcut his own trip home.

That said, there are some things you can set up that will do well toward dissuading repeat visits from certain sorts of people.

One of the first things you want to do is determine the best locations for traps. Typically, these are going to be places where you don't want people going, such as places it would be easy for them to hide. Let's say you have a detached garage and you want to make sure people aren't able to just hunker down behind it as

they approach your house. The first idea that comes to mind is to plant hawthorn shrubs along that wall. They are rather pretty, so they actually could add curb appeal. They also have thorns that are like needles a few inches long. Very sharp and painful.

Then again, something like that might not really qualify as a "booby trap," right? How about running plywood down on the ground along the wall, plywood that is covered in nails a few inches long, with the points coming straight up into the feet? Toss some dead leaves and such over it and no one will be the wiser. It has the added bonus of acting as an alarm as you're sure to hear the painful shouts of the first person to step on the nails.

STRUCTURE HARDENING

The next part of defense planning involves strengthening the home itself. All your defense planning is for naught if someone is able to just walk in the front door or easily climb in a window.

How do I strengthen doors?

This starts by examining the exterior doors themselves. Ideally, they are solid wood or perhaps even covered in metal. The best locks in the world do you no good if the door is hollow-core and easily smashed in. If there is a window in the door, it should be small and far enough from the doorknob that one can't reach it easily from the window. Should your current doors not meet these guidelines, replace them if possible.

If there is a large window in the door and you are unable or unwilling to replace the door, purchase a piece of ½-inch plywood that is cut to fit over the window. You want at least a couple inches of overlap on all sides. Then, if the time comes that you need to secure the door, use wood screws to attach the plywood over the window (on the inside of the door, not the outside). It isn't a perfect solution, but better than nothing.

When you purchase that plywood, add to your cart a couple lengths of 2×4 or 2×6 that are long enough to stretch across the

door. Use wood screws or lag bolts to attach these boards to the doorframe, going across the door, making sure the screws go into studs and not just drywall or trim pieces. This isn't something you'd do every day but rather something you'd put into place in the event of a major event. You can store this lumber in the back of a closet, along with the screws and a cordless drill, until you need it. Be sure the drill is plugged in so it keeps a charge until the time comes. Bear in mind, this is a fairly permanent security measure and it would prevent you from escaping through that door quickly in the event of a fire or other emergency.

Replace the hinge screws on the door. Typically, doors are installed using very short screws that do little more than support the weight of the door. Purchase wood screws that are about three inches long and replace each of the hinge screws, one by one.

Every exterior door should have a good quality lock and deadbolt. Be sure the deadbolt extends at least an inch into the doorframe when it's thrown. Get in the habit of locking the deadbolt every time you leave home and when you head to bed.

How do I secure windows?

Windows get tricky in that you don't want to hamper your own vision to the point that you can't see what's coming your way. But, at the same time, windows can provide easy access to your home unless you take precautions.

Depending on the nature of the disaster, you might consider installing plywood over the windows, just as we described for the window in your front door. Doing so, however, will obviously compromise your visibility. Another option, and this is something you'd need to do well in advance, is to replace the glass in your windows with Lexan or another product that is much harder to break than glass but will not hinder your visibility.

If you go with the latter suggestion, still be sure to install good quality locks on all windows or, in a pinch, use nails or screws to close them permanently.

While we're on the subject of windows, you should consider purchasing a roll or two of landscape fabric from a garden center. Tacking this over the inside of your windows prevents prying eyes from seeing into your home. It also keeps light in the room from shining to the outside. This can be important if you are the only person on the block who thought ahead and invested in candles or lanterns. The best part about using landscape fabric for this purpose is if you place your eyes very close to the fabric, you'll be able to see through the tiny holes in it.

Should I have a safe room?

Safe rooms have become fairly common in the last several years, at least among the more financially secure segments of the population. The basic idea is to have a room within the home into which you and your family can retreat in the face of an intruder. The problem is that most plans of this sort rely upon some sort of rescue by law enforcement. In the wake of a disaster, such assistance might not be coming.

However, it still isn't the worst idea to have a room from which you can either make a stand or make your escape. Most commonly, safe rooms are located in bedrooms. Pick one bedroom, often the master, and give thought to how you can augment the security of it. First and foremost, it should have some means of egress to the outside. The last thing you want is to corner yourself. If you are on an upper floor of the building, you could use the fire escape or maybe purchase a folding ladder that is precisely made for this purpose.

Next, the door, which is likely of the hollow-core variety, should be replaced with something solid. Install a good quality lock, which not only helps prevent intruders but also inadvertent visits from the kids when you might otherwise be occupied.

Finally, you should have a stash of weapons inside the room, with which you can defend you and yours.

PERSONAL SPACE DEFENSE

When we talk about personal space, we're referring to threats that are up close and personal. The intruder has gotten through the perimeter and is inside your home, looking to harm you and your family. You have no doubt that if action isn't taken, harm will befall your loved ones. The gloves need to come off.

Personal Defense Weapons

If you are able to legally own a firearm, get one. If you're not already familiar with shooting, take the appropriate classes. The store where you purchase the firearm should be able to recommend gun safety and shooting classes in your area. The fact is, if someone forces their way into your home, they aren't likely going to have flowers in their hand. They are going to be armed and probably desperate enough to not think awfully hard about whether they truly want to pull the trigger.

To a large degree, the type of firearm you choose is a matter of personal preference. The gun should fit your hand and you should feel comfortable firing it.

For matters of personal defense in an urban setting, handguns and shotguns are going to rank higher than deer rifles. Carbines, which are basically shortened rifles, are also great for urban environments, but they carry a higher price tag.

Shotguns. A decent 12-gauge shotgun purchased used will run you a couple hundred dollars in most areas. As such, this is the first firearm I suggest if you are just beginning to put together your defensive armory. Use shot shells for ammunition and avoid using slugs. Shot shells won't go through your target and into the next room the way a slug will.

It isn't only the price tag that puts shotguns at the top of the list. They are somewhat forgiving when it comes to accuracy. Shot shells are loaded with a quantity of small pellets. As they leave the barrel, they begin to spread out. This means you could be a bit off the mark and still hit your target with at least some

of the pellets. Plus, there are few sounds as chilling as that of a shell being racked in a shotgun.

Handguns. Handguns come in two basic models—revolver and semi-automatic. You might remember revolvers from cowboy movies. They have a circular chamber called the cylinder that holds the bullets. As the gun is fired, the cylinder rotates a new shell into firing position. Revolvers are less complicated to use than semi-automatics so I often suggest them as a first-time handgun. The downside is most revolvers will only hold six shells at a time. This means you'll be reloading more often.

Semi-automatic handguns are more modern, using a magazine to hold the shells rather than a cylinder. Most law enforcement officers and other professionals use semi-autos rather than revolvers. The magazines hold up to about seventeen rounds, depending on the caliber. This obviously gives you more shots before the need to reload. However, semi-autos are generally more expensive than revolvers. They are also a bit more complicated, though easy enough to learn how to use.

As for calibers, stick with ones that are commonly available, such as .357 or .38 for revolvers and .40, .45, or 9mm for semi-autos. Stock up on as much ammunition as you can afford. Don't forget cleaning kits and supplies and learn how to use them to keep your firearms in good, working condition at all times.

Carbines. As I mentioned earlier, carbines are the most expensive guns on our firearms list. These are the sometimes-dreaded "black guns" that look like they belong in the military. The AR-15 is one of the most popular models. It is dependable and will also run you upwards of several hundred dollars and the ammunition isn't cheap either.

Non-Lethal Weapons. Pepper spray gets my vote for the first non-lethal weapon on the list. Used properly, it is truly debilitating and will certainly give you time to take further action, whether that be to run away or go on the offensive. Look for varieties that shoot a stream rather than a spray or cloud. A

The 9mm Taurus PT92 is just one of the many handgun options suitable for urban preppers.

stream of liquid is far easier to aim and there's less chance of an errant breeze sending it right back into your face. Wasp and hornet spray also works well in a pinch.

There are also defensive weapons that utilize electricity to disable an attacker. Stun guns work well, provided you make contact with bare skin. They don't do much through heavy clothing. This means you'll have to be within arm's reach of your attacker, which isn't a great place to be. However, using a stun gun sure beats trying to remember exactly where that magic spot is on their neck that Spock was able to grab and knock someone out. Be sure to check your local laws and be sure you can legally own and carry such a weapon.

Improvised Weapons. There are many common household items that could be used as weapons should the need arise. Baseball bats come immediately to mind. While they aren't suited for

tight quarters, one good swing will be enough to put an attacker down for the count. A swat in the head with a heavy frying pan will also work well.

A so-called "oldie but a goodie" is to put a fist-sized rock into a sweat sock. You hold the open end of the sock and swing the weighted end at an attacker. If for some reason you lack a rock, you can use a few C- or D-size batteries or a can of vegetables.

I hesitate to suggest using kitchen knives as weapons, simply because if you attempt to use a blade as a weapon, odds are good you will also end up getting cut during the attack. But, with that said, fear of being cut by a brandished knife may be enough to send your attacker off to seek an easier target.

A very bright flashlight, such as the 200-plus lumens Quark Tactical QT2A by Foursevens, will certainly dazzle an attacker's eyes, giving you time to retreat or smack him over the head with something heavy. This approach should not be a first line of defense, but it is worth keeping in mind as a backup.

Martial Arts Training

Learning a martial art is a great way to not only add to your self-defense arsenal but get in shape. That said, avoid the arts that stress high-flying kicks or other non-practical moves. You want an art that will teach you to put an attacker on the ground quickly, without risking undue injury to yourself.

Among the arts with which I'm familiar and would recommend are Krav Maga, Jeet Kune Do, Ninjutsu, and Eskrima. Each of those will teach students very practical self-defense skills without necessitating a decade of learning before anything approaching proficiency sets in.

SAFETY IN NUMBERS

We live in a rather unique point in social development. We are more globally connected than at any other point in history. Yet, at the same time, we are more disconnected on a personal level

than ever before. On a daily basis, we might chat with a friend on another continent, yet we don't know the names of the people who live right next door.

It is important to get to know your neighbors, particularly in an urban or suburban setting. You need not become best buddies with everyone in your building, but you should do what you can to at least learn their faces and names. If nothing else, this will help you notice strangers in the area after a disaster strikes.

If the opportunity presents itself, encourage your neighbors to engage in some prepping themselves. I'm not suggesting you invite them over for a tour of your disaster supply closet, but every person who has his or her own extra supplies is one less person who is likely to knock on your door looking for a handout.

There is safety in numbers, of course. By networking with your neighbors and getting to know them, you can begin to recognize strengths they have which you may lack. For example, you may be fearful of firearms and hesitant about owning one, but your neighbor is a lifetime member of the NRA and has expressed numerous times his or her strong dislike of thieves. On top of that aspect, despite what the media likes to portray, many human beings do tend to try and help one another during a crisis. Not all, of course, but quite a few will do whatever they can to help their fellow man or woman. This is helped dramatically if the people actually know one another.

You could also go a step further and look toward setting up a Mutual Assistance Group (MAG). This is a group of people who have committed to working together in the event of a disaster or other emergency. A MAG is not something that is formed overnight, but takes time and effort to create and maintain. An excellent resource for creating a MAG is *MAGS: The People Part of Prepping* by Charley Hogwood. Not all members of your MAG will necessarily live in your building or even on your block. But, most if not all of them will reside close enough that you can rely on them for help, just as they will rely upon you.

SUMMARY

In an urban or suburban area, security is of utmost importance. All the food and water in the world will do you no good if someone can easily take it from you. People often change in the aftermath of disasters, particularly if they become hungry and have no way of easily obtaining food. Sometimes, they begin to engage in behavior they'd have never considered during "normal" times, such as becoming violent toward other people. It is wise to take action and make plans now to protect yourself and your family.

CHAPTER EIGHT

BUGGING OUT

While the best advice in almost all emergencies is to shelter in place at home, there may come a time when that isn't a viable or safe option and it's time to evacuate, or "bug out." As with anything else, there is a right and wrong way to go about bugging out. Just grabbing a bag and heading for the hills will likely make you nothing more than just another refugee.

If you've followed the earlier instructions in this book, you've made plans for sheltering in place by storing food and water and securing your home. Now it's time to make a plan for how you will leave your home because of a disaster—how you will bug out. These plans include determining when to bug out, where to go, how to get there, and what to bring.

WHEN IS IT TIME TO BUG OUT?

This is one of the most common questions both new and experienced preppers ask me. It is also one of the most difficult to answer, as every circumstance is different. What might be advisable for one person might not be feasible for another. For those who live in areas with a high population density, it is critical to identify when to hit the road so as to avoid getting caught up in the crowd.

Part of the difficulty in making the decision to bug out is that the true scope of the disaster at hand might not be easily determined right away. What at first appears to be merely a small bump in the road may turn out to be a vast mountain of chaos and confusion. Here, then, are a few red flags you should look for in the wake of a catastrophe. Seeing one or more of these should be a strong indicator that it is time to head for greener pastures.

Stores Aren't Receiving New Stock

Almost all retail stores, especially supermarkets and big box discount stores, rely on what is called "Just In Time" inventory systems. Basically, everything runs by a computer system that automatically orders product as it sells. This translates to the stores needing much less stockroom space than they did a decade ago. Just about every item they have on hand is displayed on the sales floor. This is a great system as far as profitability is concerned, as long as the system is working properly.

You've probably seen, either first-hand or on a news broadcast, store shelves being emptied in anticipation of a coming storm. It happens all the time, right? However, within a day or two of the roads being clear enough for the trucks to roll, those shelves are restocked and all is well. What if, though, the trucks aren't coming any time soon? The longer those shelves remain bare, the more skittish people are going to get. We live in an era of immediate gratification. Generally speaking, if we want something, we want it right now and we get upset if something prevents us from having it.

Eyewitness Accounts of Looting

If you hear from a reliable source that people have been seen in the area going to homes and businesses, breaking in, and making off with food and such, it is high time for you to hit the trail. However, I want to stress the "eyewitness" part of this. In the aftermath of a disaster, rumors run rampant. Think back to all

the nasty stories we heard about what went on in the Superdome after Hurricane Katrina. While there is no doubt it was not a fun place to be, as far as I know there is no actual documented proof that any infants were killed, despite how prevalent that particular story came to be.

It is one thing to have a neighbor come and tell you they saw looting taking place as they were scouting the area. It is another thing entirely for that neighbor to tell you they heard from a guy down the street who said their cousin talked to a friend whose uncle heard there was looting going in a neighboring suburb. When at all possible, you want to act on real, hard information rather than rumors and conjecture.

Emergency Services Are Overwhelmed or Unresponsive

This is no complaint or accusation against emergency services like law enforcement and fire departments, but the fact is that major disasters can quickly overwhelm their capabilities. Thousands and thousands of great men and women work in those and related fields and they work very hard doing a very difficult job. But, they are only human and they have limits. They cannot be in two places at once and there are only so many of them to go around. At some point, if the disaster is too large to handle, triage is going to take place. They will have to make some very hard decisions as to which emergencies they have to just let sit while responding to others.

Of course, this happens even today. Police and fire dispatchers must constantly decide which calls should receive priority. For example, a multiple vehicle crash with injuries is going to take precedence over a backyard campfire out of season and without a permit.

Added to this, in the wake of a catastrophe, staffing levels at these emergency service departments might be at less than 100 percent. Officers may have been injured in the disaster, some may become ill, and a few might decide to call in so they can

stay home and provide for their own family's needs. Again, they are just as human as the rest of us.

Even if there are no vacancies during roll call, as we said before, the magnitude of the disaster may still overwhelm the capabilities of the responding agencies. Should that happen, you really don't want to be the guy or gal standing on their front lawn, patiently waiting for a squad car to arrive and resolve a problem for you.

Follow Your Instincts

Above all else, when it comes to deciding whether it is time to bug out or not, trust your gut. You may only have one chance, one window of opportunity, to get out ahead of everyone and make it to your chosen bug-out location rather than end up in the middle of an interstate that has become nothing more than a massive parking lot.

WHERE DO I GO WHEN I BUG OUT?

Without a planned destination in mind, bugging out simply makes you one more refugee on the roads. Ideally, you should have multiple locations available to you, each in a different direction. This gives you options. If, let's say, the only bug-out location you have set up is to the north, and all routes that way are now several feet underwater, then what? For example, you might have Grandpa's old cabin about seventy-five miles to the north, your college roommate's suburban home forty miles to the west, and your Aunt Patty's hobby farm sixty miles to the east. Of course, you should have conversations with each of those people well in advance, hashing out an agreement that you are invited to head there in the event of a disaster. The last thing you want to happen is to endure a journey of possibly a few weeks or more, only to be told upon arrival that you're not welcome and to hit the road.

Distance to Bug-Out Location

As you consider your options for bug-out locations, one of the first things to consider is distance. It may turn out that you end up traveling some, perhaps all, of your journey on foot. With that in mind, having a destination a few hundred miles or more away just isn't going to be feasible for most people. On the other hand, unless the disaster is very localized, you are going to want a bug-out location that is farther than just the next block over. On average, look for places that are, at most, seventy to one hundred miles away. Any distances farther than that are going to be unrealistic for most folks. This distance also takes into account the fact that most people don't top off their gas tanks as often as perhaps they should. Modern vehicles can usually travel around one hundred miles on a quarter tank of gas.

Less-Populated, But Not Remote

In addition to distance, you want to avoid a situation where you'd be going from the proverbial frying pan into the fire. If you live in a very urban area and plan to bug out to another nearby urban area, you might not be doing yourself any favors. In an ideal world, you'd have at least one if not multiple bug-out locations that are away from high population areas. Naturally, that isn't always possible for everyone, but that's the goal for which you should be striving.

You may notice that I've not mentioned the idea of bugging out to a large state forest area or some place else along those lines. Having the idea of just heading for the hills to live off the land isn't a realistic option for the vast majority of people. While I know several people who possess the necessary skill sets to possibly pull that off, every single one of them would agree that such a plan is a last-ditch effort. Sure, part of your bug-out journey might entail living in the rough for a few nights. Hopefully, though, that will just be temporary as you move ever closer to your destination.

Important Documents

In addition to the very basics of food and water, you should also keep copies of important documents at each of your bug-out locations. In recent years, particularly after Hurricane Katrina, it has become evident that having copies of your insurance policies and identification will go a long way toward expediting any claims. Therefore, make a complete copy of each of these documents and have them stored with your supplies at each bug-out location:

- identification—driver's license or state identification card
- all insurance policies—home, auto, life
- property ownership records—house deeds, vehicle titles

You might also consider including a summary of your financial records, such as bank accounts, credit cards, 401(k) statements, and information relating to other accounts you may hold. If your records are destroyed in some way, having backup copies can speed things along when it comes to accessing those accounts.

Finally, consider including copies of treasured family photos with your documents. Go through your albums and pull out the photos that you'd be truly devastated if you lost. Scan them into a computer and save copies of the digital files on flash drives.

Stocking the Bug-Out Locations

After you select your bug-out location, you need to stock those locations with survival supplies. Few of us can afford to have duplicates or triplicates of everything, but you want to have at least some supplies stocked at each bug-out location. Sure, you will be bringing some supplies in your bug-out bag, but you cannot possibly expect to carry with you everything you'd need for an extended time period.

At an absolute minimum, each bug-out location should have enough food and water to last everyone who intends to shelter there for a few weeks. After you make an agreement with friends and/or relatives to use their homes as bug-out locations (and you must be willing to reciprocate, a mutual aid agreement is the best for this arrangement), put together a few boxes of survival supplies, particularly food and water, for them to stash for you.

I realize that in a perfect world, they'd already have enough food and such on hand to account for your needs on at least a temporary basis. Reality, though, has a nasty habit of taking such assumptions and casting them onto the rocks from a high cliff.

You might go so far as to include a few sets of clothing for each family member, sleeping bags, toiletry kits, some cash, and other basic necessities in your bug-out location survival kit. Think along the lines of having to stay at a motel for a few nights and plan accordingly.

HOW DO I GET TO MY BUG-OUT LOCATION?

After you have your bug-out locations sorted out, the next step is to plan for how you will get to each of them. The best-case scenario, provided the disaster damage doesn't preclude it, is that you'll be able to just hop in the family car and go for a drive. That said, take the time to plan multiple routes to each bug-out location. You might find your normal route is closed or impassable due to disaster-related damage or flooding and when that happens, you'll feel better already knowing an alternate route you can take. Remember, if not much time has passed since the disaster hit, road crews may not be out posting detour signs just yet. Purchase (or print from an online source) a detailed map of the area. Use this to help map out several different routes to your destinations. Do not mark these routes on the map, though. While it sounds a bit paranoid, if the map were lost or taken from you, someone else might end up visiting your bug-out locations. Include the map in your bug-out bag as GPS as cell phones may not work following a disaster. A compass will be beneficial as well, provided you take the time to learn how to properly use it.

Multiple routes also let you avoid concentrations of people. If the people are stranded in their area and yours is the first working minivan they've seen in a few days, they might want to take it for a drive themselves. During your bug out you want to avoid making new friends if at all possible.Keep in mind, too, what

The Bug-Out Bicycle

A bug-out bicycle is an option more and more people are exploring. Personally, I think it is a great idea. Using a bike to get to your bug-out location will be faster than walking. It also requires no fuel source and can go off road much easier than a motor vehicle. Visit your local bike shop and you might be surprised at the wide range of packs and accessories that are available to help you transport a rather sizeable collection of gear on a single bike. Keep in mind, though, that you'll be the one feeling every ounce of that added weight as you go up hills. Don't overdo it and try to pack everything, including the kitchen sink.

You can often pick up a decent bike rather cheaply at rummage sales. Before buying a used bike, be sure to inspect it thoroughly. Make sure the chain is tight and everything works smoothly. Along with the food and survival gear you pack, include a few extra tire tubes and a tube repair kit. A small tire pump that attaches to the bike frame is also a wise investment.

I've equipped a used bike and store it in a small storage area in the basement where I work. If for some reason I'm unable to drive my car home, I have the bike as my backup.

we talked about regarding the government's typical responses to disasters. In many situations it's likely that the government will cordon off some areas of the city, close down roads, perhaps even staff checkpoints in some areas to prevent non-residents from going in to loot and pillage. Know the emergency plans the city has in place so you can plan ways to get around those obstacles.

Hollywood and novelists have convinced many people that climbing down through any random manhole gives them access to a wonderful world of underground sewer systems, subway tunnels, and other ways to get around the city without being seen. The reality is, well, this is just an insanely bad idea unless you are somehow very knowledgeable about such systems in your city. If you're not, stay out of them. Instead of finding a way out, you'll find poisonous gases, raw sewage, and vermin—all are not to be trifled with.

Traveling by Foot

Of course, as I mentioned earlier in this chapter, you should also plan for the contingency that you might end up on foot for at least part of your journey. Given that none of us have any way of positively knowing exactly what might befall us, it is better to plan ahead for this potential eventuality. This planning starts with those routes you identified earlier. If you are on foot, you aren't necessarily limited to roads and can instead travel in straighter lines. For example, if you have large state or national parks along the way, instead of driving around them, you might be able to walk straight through, more or less.

We'll talk about bug-out bags and other survival kits in a bit, but let me get this out of the way now. You should *always* have good footwear available to you. What I mean by this is, if you work in an environment that requires you to wear dress shoes, you should have a good, broken-in pair of hiking boots or, at the very least, comfortable walking shoes, stashed with your gear in the car or at your workstation. Think back to the news footage of people in New York City fleeing the destruction at the World Trade Center on 9/11. Most of them were wearing suits, dresses, and the like. Many of them faced a long walk home in high heels or slick-soled shoes because public transportation was closed, roads and bridges were closed, and cars had to be left behind in the rush to get away.

Being on foot, while slower than a vehicle, also affords you the advantage of concealment. It is much easier to duck down a side alley and make your way to the next block over when you don't have to worry about whether your car will fit past the dumpsters.

WHAT TO CARRY WITH YOU IN A BUG OUT?

The bug-out bag is a core element of your overall plan. In its purest form, the bug-out bag is simply a collection of supplies to get you from Point A to Point B. If you are a student of history, you'll find that many cultures had their own versions of

these portable survival kits. The famous mountain men of the American Old West called them "possibles bags." Going back about 5,000 years earlier, we have Ötzi, the so-called Iceman, whose well-preserved body was discovered in glacial ice in the Ötztal Alps in 1991. He was found to be well dressed against the weather for his trek through the mountains and he was carrying a small survival kit that contained things like flint tools and a bone awl, as well as tinder for making a fire. While bug-out bags are far from a modern invention, we've come a long way from a rawhide pouch carrying dried moss. Today, we can take full advantage of modern technology that will allow us to carry more without adding undue weight. I can't emphasize enough that you should plan for the possibility that you'll be carrying the bug-out bag on your back, rather than having it sit in your vehicle's trunk until you arrive at your destination. That being the case, you need to pay close attention to every single ounce you add.

Your bug-out bag should contain items that will provide for your basic needs during the time you are on the road. These needs include:

- water
- food
- shelter and fire
- first aid and hygiene
- light
- security
- navigation

It sounds like a lot, I know. But, let's go through each category and talk about what should be in your bug-out bag for each need.

Water

Despite how essential water is to life, you simply can't expect to carry several gallons of it. At about eight pounds per gallon, it is just too heavy to carry in bulk. Instead, plan to carry some water with you as well as the means to filter and purify more.

Most people can comfortably carry about two liters of water. Break this up into two separate one-liter bottles. This way, after you empty the first one, you can refill it with water you find and purify it while still having the other bottle to quench your thirst immediately if need be.

There are many ways to filter and purify water out in the field. Some of the methods were discussed in chapter four, while certainly doable on the road, just aren't too practical. Boiling, for example, is great if you have the time to wait as well as a suitable container in which to boil the water. Solar disinfection (SODIS) takes at least a day under optimal conditions. When bugging out, speed is of the essence. You want to get from your home to your bug-out location as fast as is safe and practical.

Water Purification Tablets Carrying a supply of water purification tablets is one excellent way to provide for potable water on the road. These tablets remain viable for about one year after opening the bottle and they are readily available in the camping section of big box stores and outdoor retailers. Be sure the bottle of tablets is marked prominently with the appropriate dosage, such as two tablets per quart of water. Helpful tip: One U.S. quart is just a hair more than one liter. The difference between the two is negligible.

Mechanical Filter Systems Another option is to pack in your bug-out bag any one of a variety of available mechanical water filter systems. Examples include water bottles with built-in filters as well as straws with the same capability. Berkey is one of the most popular manufacturers of such filtration products and for good reason. While pricey, their products work very well. Other manufacturers include Aquamira, Katadyn, LifeStraw, and MSR.

Whether you use chemical or mechanical means to provide potable water, it is always a good idea to pre-filter the water. This is as simple as pouring the questionable water through a coffee filter or bandana prior to treating it. Doing this removes much of the sediment, debris, and bugs that may be floating in

the puddle or pond. SurvivalResources.com sells a rather ingenious water purification kit that is designed to utilize common cone-shaped coffee filters. At around thirteen dollars, it is worth the investment.

Naturally, when it comes to finding water on the road in an urban area, you want to avoid sources that are near large manufacturing facilities. Even many of the high-end purification systems won't work very well on heavy metals and other forms of chemical pollution.

While I typically refrain from suggesting activities that are illegal or even those in a murky gray area of the law, you might consider adding a sillcock key to your bug-out bag. Many commercial buildings have a water spigot on an outer wall, but it is missing the handle. Instead, it has what looks like a square nut that must be turned in order to open the faucet. The sillcock key is the tool you use for this purpose. These are available at most home improvement stores, typically for well under ten dollars. Obtaining water in this fashion may be illegal, but if you're just filling a couple of bottles and moving on, I doubt you are taking a huge risk.

Food

Bug-out food should be high-calorie and high-energy. This is not the time to worry about your diet or your waistline. You need fuel for your body for the next leg of your journey. You also want food you can eat quickly.

Food in a bug-out bag should require little to no preparation. Think, open, and eat. It also needs a long shelf life, given that it might sit in your bag for months before being eaten. And finally, it should be lightweight and take up little pack space. Canned foods, while they last a long time, are just too heavy to be practical for bugging out.

With all that in mind, what are some good candidates for the bug-out bag? Start with things like dried nuts and fruit, granola bars, and crackers. Canned tuna is an exception to the rule

against canned goods as they are small and lightweight. The USDA has said that canned tuna will remain good for at least two years if stored properly. You could also opt for tuna that is packaged in mylar pouches rather than cans. If you go for the canned route, be sure to pack a couple can openers in your bug-out bag. Save space and weight by packing a P-38 or P-51 military-issue can opener. They're about the size of a razor blade and widely available (simply Google them to find retailers). Personally, I prefer my tuna in water rather than oil, but I recognize that the oil will provide additional calories.

Although you'll be on the move and will need energy, you'll likely need less food on your bug-out journey than you consume on a normal day. Let's face it, most of us eat far more calories than we really should to begin with. Add to that the general lack of activity in our daily lives and, well, most of us could probably stand to lose a couple pounds. The point is, while your bug-out bag should have enough food to last at least a few days, that amount is probably less than you imagine it to be. A couple granola bars in the morning, snack on trail mix throughout the day, then a meal of crackers, tuna, and dried fruit in the evening will likely be plenty. You might also consider tossing in a few pieces of hard candy for quick energy boosts.

Should you decide you just have to bring along foods that require cooking, if nothing else than just to provide a warm meal at the end of a long day, be sure to include the means to prepare the food. A small mess kit, like the ones used by Boy Scouts, works very well. Something to remember, though, is you'll also need a way to clean the pans after eating. A square of aluminum foil scrunched up a bit works pretty well as a pot scrubber.

Personally, I like to store a Sierra Cup as well as a few bouillon cubes in my bug-out bags. While I don't plan on doing a lot of cooking while on the road, a hot cup of chicken bouillon can be nice on a cool night. Along those same lines, you might want a few packets of instant coffee or some tea bags in your bag.

Juice Pouch Food Storage

If you have children who love juice pouches such as Capri Sun, don't toss the empties into the trash. You can reuse them for storing food in your bug-out bag! Those pouches are made of mylar, which is used the world over to package food.

For this project, you start by cutting open the pouch. Cut straight across the top of the pouch, just below the hole for the straw. Wash and rinse the pouches very well and let them air dry completely. This is important—the interior of the pouch must be absolutely dry to avoid mold or food spoilage.

When the pouch is dry, pour in your food. If you are going to use something like white rice, which is a great idea by the way, use a measuring cup to determine just how much you've put in the pouch. Measuring it first will allow you to know how much water to add when you want to cook it. Avoid using wild rice varieties though as they contain oils that will go rancid in the long-term. Stick with white rice, even instant rice will work well. Add a bouillon cube for added flavor, if you'd like. Dry pasta works well, too.

Make sure you leave about an inch or so of empty space in the pouch. Then, pinch the top closed and gently squeeze as much air out as you can. Fold the top over two or three times.

Then, seal it closed by running a hot iron over the seam a few times. This melts the mylar slightly, sealing it airtight. There is no need to cover the pouch with a towel before ironing it closed. It takes just a few seconds for the mylar to fuse. I've never had an issue with mylar sticking to my iron.

Use a marker to write on the outside of the pouch what is inside as well as any preparation instructions. To continue with our rice example, you'd want to note how much water to use when cooking.

Note: These pouches are not suitable for cooking in. They are merely a convenient way to store the food in a small package. You will still need to carry a pot or pan to prepare the food.

Other quick-cook options would include the ever-popular ramen noodles. They are light, easy-to-pack, last just about forever if kept dry, and can be filling. Really, though, any of the convenience foods that just require a little water will work, even the ones that are designed for microwave use. Just heat the water, add to the food, cover, and wait for the water to soak in.

You can cook just about anything over a campfire, provided you have the proper tools and knowledge. However, there may be times when a roaring fire won't be a good idea, such as traveling through the city at night. Camp stoves are just too heavy and bulky to carry around in your bug-out gear, not to mention needing to also carry the small fuel canisters for one. One option is to invest in an alcohol stove, such as those made by Esbit. These come in very small sizes and are extremely easy to use. Simply fill the stove with a little denatured alcohol and light it up. Virtually smokeless, the flame is even difficult to see because it burns so cleanly. You'll need to pack a container of alcohol, of course. Many people use small plastic squeeze bottles for this purpose. Store them inside a plastic bag for added protection.

Another great bug-out bag cooking option is a buddy burner. See chapter five for instructions for making your own buddy burner. They're lightweight, affordable, and easy to make.

Clothing and Shelter

Shelter includes all ways to keep you out of the elements, or at least keep the elements off of you. So, we're not talking about lugging a huge family-size tent but rather making sure you have things like rain ponchos and cold weather clothing.

As we talked about earlier, one of the first requirements in this category is proper clothing.

If you live in an area where the winters are cold and harsh, your bug-out bag should have an extra pair of mittens or gloves as well as a decent stocking hat. For warm summers, a pair of cargo shorts might be advisable. Clothing needs to be rotated and we'll discuss how often to inspect your bug-out gear and adjust the contents for the seasons in a bit. Make sure you have clothing that reflects the climate in your area.

No matter the weather or the season, you should have a couple extra pair of socks and underwear. If you've ever stepped into a mud puddle and then spent the next few hours walking

with a wet foot, you know the value of having extra dry socks. Same goes for a wet bottom from sitting on the ground.

A couple bandanas are also excellent to have in your kit. I prefer the larger *shemagh* scarf. These are worn by troops in the Middle East. At roughly two to three feet on each side, they are much larger than the handkerchief-sized bandanas your grandpa or great-grandpa carried around. A shemagh is great for use as a scarf for warmth, sunblock for your neck, mouth covering to keep out dust and dirt, sling, tourniquet, filter to remove debris from water, and a small pillow when wrapped around a couple shirts. You can also place some gear in the middle of the shemegh, fold it over and then tie it over your shoulder and back to create a sling-style pack.

Sunglasses are another great idea. Whether driving or walking, they'll help keep you from squinting at everything. Speaking of squinting, the next time you get new prescription glasses, put the old ones in a hard case and stow them in your bug-out kit. If your current ones get broken or lost, you'll have a backup pair to use. A pair of spare glasses is also important for those who wear contact lenses. While a backup pair of contacts, along with a small bottle of saline and a spare case, could be added to the bug-out bag, glasses may be a better option. If you end up on the road for a while, there may be hygiene limitations that would cause you to not want to stick your finger into your eyes.

In addition to the clothing, every bug-out bag should have at least one good emergency blanket. This is something you don't want to skimp on and get at the dollar store. The ones you find at places like that are thin, tear easily, and are essentially worthless. Spend a few extra bucks and get a good one like the Heatsheets brand. They are durable and work very well. These blankets fold up very small and weigh next to nothing, so it isn't a bad idea to toss a couple of them in each bug-out bag.

When you are in a situation where you need to use an emergency blanket, it is important you use it correctly. They are not

meant to just drape over your shoulders like you might drape a wool blanket. An emergency blanket should be wrapped around you tightly like a cocoon. They work by reflecting your body heat back toward you. The shorter the distance that heat has to travel, the better. In addition to keeping you warm, you can use an emergency blanket as something to sit on if the ground is wet or tied above you as a makeshift lean-to shelter.

A rain poncho is another essential clothing and shelter item. Again, don't just grab a cheap one but invest in something of decent quality. I'm all about saving money, but when a cheap poncho could mean hypothermia, it's worth spending a couple extra bucks. Military-style ponchos are heavy duty and have grommets in the corners so you can easily tie the poncho to poles or trees to make a lean-to shelter.

There are some experts out there who advocate packing a small tube tent in the bug-out bag. Honestly, I go either way on that. Sure, they work well in keeping the rain off if you have to bed down for the night. Further, they don't add much weight to the pack. But, really, you can accomplish the same thing by draping one of your emergency blankets over a length of rope and weighing down the sides with rocks or bricks.

Fire-Starting Supplies

Being able to reliably start a fire is a valuable component of your bug-out kit. Fire will help keep you warm, cook your food, boil your water, and generally help morale. Little else is more comforting in the field at night than a good fire.

Your fire-starting kit should contain several items to help you get a fire lit. There are two essential elements here: tinder and an ignition source.

Tinder is some sort of light material that catches a spark easily. There are many commercially produced items that work well, such as tinder tabs. However, the best tinder I've ever used is made simply by taking cotton balls and mixing into them pe-

troleum jelly. Just take a small sandwich bag, toss in about a dozen cotton balls, then a dollop of jelly. Squish the cotton balls into the jelly and mash it all around for a bit. That's it—they're ready to use. If you happen to have an old 35mm film canister, the black ones with the gray lids, those work very well for carrying these cotton balls. To use them, just take one or two out, pull the fibers apart a bit, and light. Be sure your hands are completely clean of the petroleum before you light the cotton.

The ignition source is what you will use to light the tinder. Now, you certainly could practice primitive methods like bow drills or fire ploughs, but every survival expert I know carries a butane lighter or two in their kits. Strike-anywhere matches are another great option. A third recommendation, provided you already have the first two, is a magnesium striker. This consists of a block of magnesium with a striker rod embedded along one side. Use a knife blade or some other thin, flat metal bar to scrape magnesium off the block into a pile about the size of a quarter. Then, firmly scrape the back of the blade down the side of the rod, shooting sparks at the magnesium or your tinder. Many of these magnesium fire starters come with a flat piece of metal to use as a striker, so as to preserve the edge on your knife. I use a thick rubber band to keep the striker attached to the magnesium block.

While urban areas aren't forests, it shouldn't be all that difficult to find fuel for your fire. Cardboard burns hot and not quite as fast as paper. Broken pallets are often easy to find, as are boards from abandoned buildings. Just always be certain you have plenty of ventilation and avoid sitting too near the fire where you end up breathing more smoke than air.

First Aid and Hygiene

For your first aid kit, consider the most likely things you'll need to address during an urban bug out. The more common injuries are going to be cuts and scrapes, possibly a bruise here and there. Hopefully, you're not going to be dealing with gunshot

wounds or major head trauma. As for illnesses, really the main concern there is going to be stomach upset from eating bad food or drinking tainted water. Of course, there's always the chance that someone in your family will already be suffering a head cold or the flu at the time of the bug out.

The point is to build your first aid kit around your expected needs, rather than just going out and buying a pre-made kit and calling it a day. A basic first aid kit for bugging out should include:

- adhesive bandages in assorted sizes
- antibiotic ointment
- burn cream
- gauze pads
- surgical tape
- elastic bandages for sprains
- moleskin for blisters
- pain relievers and fever reducers (acetaminophen, ibuprofen, aspirin)
- anti-diarrhea medications
- antacids

Include any prescription medications you take on a regular basis as well as anything necessary to treat chronic conditions.

As for hygiene, it is difficult to keep clean when traveling on the road, but you should include items that will help you make a good effort. Keeping reasonably clean will go far toward reducing the risk of illness and infection, as well as help you feel human again. Put together a small kit containing a bar of soap, a washcloth, a toothbrush, toothpaste, and dental floss. Use travel-size containers to reduce the overall size and weight of the hygiene kit. You can fit all of that into a quart-sized plastic baggie.

Women should include feminine hygiene products, which can also be used as tinder. Everyone should have a travel-size package of baby wipes as well as a roll of toilet paper. To save space, remove the cardboard tube, then put the roll into a plastic bag and crush it flat.

Hand sanitizer is also essential. Use it after every toilet break. Incidentally, it can also serve as a fire starter, due to the high alcohol content. Just squeeze a little out and light it.

Light

It is almost a certainty that you'll do at least some traveling at night. That being the case, you want at least a couple ways of lighting your path. Street lights in the city work great, but if the power is out, the night gets awfully dark. Crank-powered flashlights have come a long way and the more modern ones work pretty well. Turn the crank for a minute or so and you'll get plenty of light that lasts.

Headlamps are another piece of technology that has dramatically improved in recent years. They are small, weigh very little, and those LED bulbs put out a lot of light. The first time you need to make a potty break in the middle of the night, you'll appreciate the hands-free nature of a headlamp.

While snaplights, sometimes called glow sticks, are an option, I don't like to suggest reliance upon them. They are not reusable, and once they are activated, they cannot be turned off.

If you are packing any lights that require batteries, be sure to include at least one extra set for each light in your bug-out bag.

My personal recommendations for flashlights for the bug-out bag include the Quark Tactical QT2A by Foursevens and the Stylus Pro by Streamlight.

Security

You should absolutely have some means of defending yourself and your family. For many, this will mean a firearm. If you are not legally allowed by to carry a firearm, have someone else in your party carry the weapon. The last thing you want is for an overzealous law enforcement officer to determine your firearm is breaking the law and not only confiscate it but also place you under arrest. Remember, many officers will err on the side of

caution and decide it is just easier to take you into custody than deal with the problem in another way. Firearms require ammunition as well as routine cleaning. Be sure to pack accordingly.

Should you decide to not carry a gun, you do have some other options. Pepper spray works well and obviously is not lethal. Be sure to get the kind that shoots a stream, rather than a fog. You don't want a stray breeze to send that chemical back at you.

Stun guns are also very effective but require you to be within arm's reach of your assailant as you need to make physical contact with the probes on the device. If you're close enough to do that, you're close enough for them to grab you and inflict damage. An expandable baton is an option, but like the stun gun, it requires you to get much closer to an attacker than you'd like to be.

I don't recommend relying on a knife for defense, and here's why. If a confrontation gets to the point that you are pulling a knife, you are going to get cut. There is no way around it—you *will* get cut. That's not a fun prospect no matter which way you look at it. If that's your only option, so be it. A knife is certainly better than pointing your finger at the guy and yelling, "Bang!"

Navigation

In spite of all the route planning you did ahead of time, figure on getting lost at least once or twice along your journey. Getting back on track starts with a good map of the area. As mentioned earlier, keep a street map in your bag. Get to know your chosen routes by traveling them on a regular basis. Pay attention to how things look different from day to night and as the seasons change.

A small compass will also help keep you on track, especially once you get past the city limits, but knowing which way is north is only helpful if you know which direction you want to travel.

Survival Knives

A good quality knife is an essential piece of gear. Not for self-defense necessarily, but you'll always have a need for a cutting

implement. For a bug-out bag, I prefer a fixed-blade knife rather than a folding-knife. A fixed-blade knife has no moving parts that may fail and is infinitely stronger than those of the folding variety. It can be difficult to navigate through the gazillion choices when it comes to a knife for the bug-out bag. Here are some things you should look for when shopping around for a fixed blade knife.

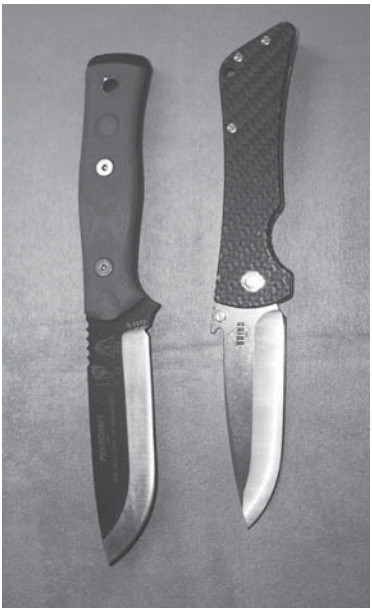
Blade Steel. The first consideration is the steel used for the blade. Carbon steel makes for a very strong blade. However, carbon steel is also somewhat prone to rust, so give the blade a thin coat of mineral oil after sharpening.

Full Tang. The next consideration is the construction of the knife. A full tang is desired. This means the piece of metal forming the blade continues completely through the handle. This should be evident by examining the knife handle. Avoid purchasing hollow handle knives. While they look cool, all but the very high-quality ones will fall apart rather quickly under use in the real world.

Handle and Shape. The handle material and shape are also important. The knife should be comfortable to hold and use. I prefer a bit of roughness to the handle as that helps me to keep a tight grip if the knife gets wet.

Blade Length. Despite what you may see on TV or in the movies, you truly don't need a blade as long as your forearm. Stick with a blade that is around four or five inches in length. That will be plenty of blade to do just about anything an urban prepper might have to handle. Personally, I don't care for serrated or partially serrated blades. While they are useful when cutting wet rope and some other materials, they are also much more difficult to sharpen in the field unless you really know what you are doing and have the right gear with you.

Speaking of sharpening, add to your kit a pocket knife sharpener, such as the Lansky BladeMedic. A dull knife is more dangerous than a sharp one as you'll need to apply more pres-



Two recommended knives for urban survival kits, the TOPS Knives Brothers of Bushcraft Fieldcraft knife (left) and the Bad Monkey folding knife by Southern Grind (right).

sure when cutting. A pocket sharpener will allow you to touch up the blade as needed.

The knife sheath is also important. I've run across many great knives at great prices and passed them by because the sheath was inferior. The sheath should be solidly constructed, either of thick leather or a heavy plastic like Kydex. The knife should be fully retained by the sheath, with no wiggle room. The last thing you want is for the knife to come loose and fall out while you're running.

I have owned many knives and recommend any of these manufacturers:

- Cold Steel
- TOPS Knives
- Mission Knives
- Condor Tool and Knife
- Becker Knife and Tool

While I tend to change things up from time to time with regards to my bug-out knife, my current bug-out knife is the Brothers of Bushcraft (B.O.B.) knife made by TOPS Knives.

Choosing a Folding Knife

Although I prefer a fixed-blade knife, folding knives are obviously smaller than most fixed-blade knives and as a result may be better suited for some urban preppers.

While most multi-tools have at least one blade, I prefer to have a separate folding knife. In my opinion, it just makes sense to rely on something that was designed to be a knife, rather than just have the blade be an accessory within something else. The first thing to look for in a folding knife is the same as with a fixed blade—the steel. Avoid anything that is labeled Pakistan or China. With just a bit of effort, you'd be able to bend those blades with your bare hands. Instead, look for 440C steel or a carbon steel.

I prefer a blade that locks into place when opened. Personally, I find this safer than if the blade can simply fold back up with a bit of pressure. Many folding knives today also have a notch or pin attached to the blade that allows you to open the knife with one hand. This is a great feature and is very useful. Many folding knives are also sold with small clips along the side, so you can secure it to your pocket. This is also desired.

When opened, the blade should not wiggle in any way at all. If it does, pass and purchase something else. Whether the folding knife has a locking blade or not, it should snap into place firmly when opened.

I greatly favor my Bad Monkey folding knife, manufactured by Southern Grind. The blade is a bit long at four inches but it fits into my pocket nicely. It is a strong, dependable folding knife. Another great option is to pick up any of the genuine Swiss Army folding knives, such as the Victorinox Swiss Army Tinker knife I've carried for about three decades.

Multi-Tool

Multi-tools are very useful but always carry them in addition to a sturdy survival knife. It's interesting to note that, in an informal polling of friends and family members, each person admitted to using a multi-tool far more than they'd imagined they would when they first bought one. It is just one of those things that, once you have it, you'll wonder how you ever got along without one. The first true multi-tool came out in the mid-1980s, invented by Tim Leatherman. Since that time, thousands of varieties have been brought to market by many different manufacturers.

While the combinations of tools included in various multi-tools can be dizzying, there are only a few I feel are absolutely essential. First, it should have at least one sharp blade. This serves as a backup to your folding or fixed-blade knife in your bug-out bag.

Second, the multi-tool should have pliers. Most multi-tools have pliers that also incorporate a wire cutter as well. The pliers are used for holding things, twisting wire, loosening or tightening bolts or nuts, and removing nails.

Screwdriver heads are also very useful, both flat and Phillips. You'll use them for loosening or tightening screws, of course. Some multi-tools are configured with several different sizes of screwdriver heads, which is great.

Finally, a can opener is very handy and recommended. While you should have a separate can opener, such as a P-38 military-style one, in your bug-out bag, having a secondary one as part of your multi-tool gives you a backup.

As with any other tool, I suggest going with a known brand name, rather than a cheap knockoff variety. Recommended brands include Leatherman and Gerber. I've carried one of the older Leatherman models for many years without issue or complaint.

Other Practical Tools

Paracord Paracord is very useful. Incredibly strong, yet about the same thickness as a shoelace, it consists of seven inner strands of cordage surrounded by an outer covering. You can easily remove one or more of the inner strands by pulling it free. What this means is, if you have twenty feet of paracord, you actually have 160 feet of cordage (seven inner strands plus the sheath). Each of those inner strands can also be unraveled into two separate cords, but really they get so thin at that point they aren't all that useful.

Duct Tape A small roll of duct tape can be used to patch holes in your emergency blankets, even your clothing. Rather than lugging around the big, heavy cardboard roll, wrap several feet

Wrapping several feet of paracord around an old credit card allows for flat storage in a survival kit. This also prevents it from getting tangled.

around a pencil stub. Or, wrap lengths around your lighters and your water bottles to distribute the load and keep bulk down.

Pencil and Notepad Speaking of pencils, a few of those with a small notebook are great to have. You may be surprised at how often you might want to jot something down, such as a note of a specific intersection in case you take a wrong turn down the road a bit.

Pry Bar A small pry bar may prove to be extremely useful during an urban bug out. While I try to refrain from suggesting illegal acts, in a true crisis you may find it necessary to pry open a door in order to effect your escape from danger. Titanium pry bars offer a high degree of strength while not adding much weight to your pack. A key-chain-size pry bar, such as the Boker titanium Vox Access Tool, may do the trick in some cases.

Garbage Bags Contractor-grade garbage bags have many uses, so pack several in your bug-out bag. They can be used as improvised rain ponchos, to carry scavenged supplies, or even placed on the ground before sitting so you don't end up with a wet butt.

Hand Trowel A hand trowel is used for burying garbage and waste, should the need arise. Small and lightweight, it won't add much bulk to your bug-out bag.

Comfort Items

There are several items you'll want in the bug-out bag that, while not essential to survival, sure can make things easier on you. Remember, if you are in a situation where you are relying on your bug-out bag to keep you alive, anything you can to do help reduce stress is important.

A wide-brimmed hat will keep the sun off your face. It can also serve to break up your outline when you are trying to stay hidden or for some reason you need to change your appearance.

Insect repellent might not be quite as important in most urban settings as it is out in the country, but you may find it beneficial. Sunscreen will keep you from getting burned as you travel. Remember, you may end up conducting part or all of your journey on foot rather than in a vehicle.

Lip balm sounds like such a luxury item for a survival kit, but if you've ever experienced severe chapped lips, you'll recognize the importance of this item.

For many people, having some sort of inspirational item may be essential. This could be a religious text or perhaps photos of loved ones. The idea is to have something with you that will bring you a measure of emotional comfort.

Boredom relievers are also recommended. A small book or a deck of cards cannot only help pass the time but keep you from dwelling on negative thoughts. It is important to remain as positive as you can in a survival situation.

Types of Packs

Now, how are you going to lug all that stuff around? In general, the wise decision is to invest in a pack that you can carry on your back, so as to keep your hands free. The second best option is a duffel bag you can strap across your body. The pack is an important area where you may want to invest a few extra dollars to get something of decent quality. The backpacks you find on sale during back-to-school season are generally poorly made

Bug-Out Bags for Children

Children cannot be expected to carry full-size bug-out bags, of course. However, even young children can carry at least a small amount of supplies. Most children over the age of four or so can carry a small backpack with a change of clothes, some snacks, and a water bottle. As they get older and stronger, gradually add to their packs more gear and supplies. Do everything you can to keep the items in the child's bug-out bag age-appropriate. For example, don't give a six-year-old a sheath knife or pistol. Even if they've been instructed to never use or even touch the item, temptation may win out.

One particular item that every single child should have with them is a loud whistle. Teach them to use the whistle if they get lost or feel they are in danger. A piercing whistle will cut through the noise of crowds and allow you to pinpoint the child's location quickly.

and will fall apart sooner rather than later. A better choice is to visit sporting good stores and outdoor retailers and choose a pack designed for hiking and backpacking. One benefit of visiting these stores is the employees are able to help you choose the perfect pack for your body shape. A second option is to search out genuine military surplus packs, avoiding cheap knockoffs.

I prefer packs that have several pockets inside and out. This helps with keeping things organized and easy to find. It is a pain in the posterior to need a flashlight and have to dig through the entire pack in the dark trying to find it.

Wheeled suitcases are also a bad idea. Sure, they work great in airport terminals, where the floor is nice and smooth, but going over broken pavement or gravel…not so much. If you have to carry such a monstrosity over rough terrain, they are heavy. Plus, they require the use of at least one hand to pull or carry it. Remember, you want both hands free as much as possible. It makes it easier to walk, plus in case something happens you can react quicker.

Whichever kind of pack you decide to get, be sure to test it out thoroughly. Load your gear and wear the pack for at least

a few hours at a time. Get used to how it feels, how the weight shifts as you move. This testing also allows you to determine how much weight you'll need to cut from your bug-out bag so carrying it a long distance is more realistic. Every member of the family will need his or her own bug-out bag and each bag should be tailored for individual needs as well as physical capabilities. Choose packs based upon what will be carried in them, rather than buying a giant pack and feeling compelled to fill it up.

In fact, the best approach is to first assemble all the supplies and gear to be carried, then purchase a pack based on the size needed. All too often, people will buy a large pack and feel as though they need to fill it to the top, frequently adding entirely too much stuff just because they have extra space in the pack.

WHERE SHOULD THE BUG-OUT BAGS BE STORED?

A bug-out bag does no good if it cannot be readily accessed in an emergency. Therefore, you want it someplace close to you as much as possible. If you own a car or truck, this is where you want to keep your bug-out bag. Tossing the bug-out bag in the trunk or behind a truck's seat will keep prying eyes from seeing it. Having the bug-out bag already in your vehicle means you don't need to remember to grab it on your way out the door during an evacuation.

The other option is to store the bug-out bag in the home, such as at the back of a closet near the front door. It is important that all family members know where the bug-out bag(s) are located. Remember, you may not be home yourself and other family members will need to grab the bags as they leave the home.

HOW OFTEN SHOULD THE BUG-OUT BAG BE INSPECTED?

Every six months or so, completely unpack your bags and inspect each item thoroughly. Rotate out the food items well before they expire and replace with new food. Do the same with

any water you've packed, consuming the old water or pouring it on your garden or houseplants. Check all batteries to make sure they are still good and replace any that don't pass muster.

Check each piece of equipment to make sure it is in working order. Touch up any blades to ensure they are sharp.

If you have lost or gained an appreciable amount of weight since the last time you unpacked your kits, you will want to change out any clothing so what you have packed will fit you.

I suggest you use the dates for daylight-saving time changes as reminders to inspect your bug-out bags and get-home bags. This ensures you are checking through all of your gear at least twice a year.

SUMMARY

While sheltering in place is usually the ideal plan for most potential disasters, it is important to plan for a time when home may no longer be a safe location. However, just hitting the road without a planned destination will only make you one more refugee. Take the time to pack a bug-out bag, as well as a get-home bag if need be, and choose several possible destinations so as to give you options.

APPENDIX A

FOOD STORAGE AND MEAL PLANNING

The following lists should be considered a guideline for your food storage planning. Given that not every family enjoys eating the exact same foods, feel free to eliminate or substitute the ones listed that won't work for you.

These are merely suggestions for food items that are known to last a long time in storage. Therefore, we've not included things like fresh meat or produce. Those, if present in your kitchen or pantry at the time of disaster, would be consumed first before spoilage.

MEAL PLANNING

Using just the ingredients listed below, we could plan out several different meals. Few people will want to eat the exact same thing at each meal, day in and day out, so variety is important.

CANNED GOODS	DRY GOODS	BAKING SUPPLIES	TREATS/SNACKS
Condensed soup	Pasta	Flour	Hard candy
Tuna	Rice	Sugar	Chocolate bars
Chicken	Beans	Yeast	Popcorn (bagged)
Beef	Split peas	Baking powder	Chips
Corn	Dehydrated soups	Baking mixes	Granola bars
Green beans	Powdered milk		Coffee
Peas	Instant mashed potatoes		Tea
Stew	Gravy mixes		Juice mix
Chili	Crackers		
Pasta sauce	Corn meal		
Peaches	Salt		
Fruit cocktail	Bouillon (cubes or granules)		
Pears	Instant oatmeal		
	Just-add-water pancake mix		
	Just-add-water biscuit mix		

Day 1

Breakfast: Pancakes with honey or syrup, canned peaches, multi-vitamin tea or instant coffee

Lunch: Chicken noodle soup (condensed), crackers with canned tuna

Snack: Popcorn

Dinner: Canned beef with gravy over rice, canned corn, water, tea, or juice mix, chocolate bar

Day 2

Breakfast: Instant oatmeal, canned pears, multi-vitamin, tea or instant coffee

Lunch: Canned chili, crackers

Snack: Chips

Dinner: Canned chicken mixed with pasta, canned peas, chocolate chip granola bars

Day 3

Breakfast: Biscuits with gravy, fruit cocktail, multi-vitamin, tea or instant coffee
Lunch: Stew, crackers
Snack: Granola bar
Dinner: Beans and rice, canned green beans, biscuits with honey

As you can see, there are a number of meals, with plenty of variety, that can be made from very simple foods that store well. None of the sample meals listed above require anything beyond the most basic cooking skills.

APPENDIX B

EVERYDAY CARRY ITEMS

EDC is an acronym you'll run across regularly if you frequent any of the prepper-centric social media websites. It stands for Everyday Carry. EDC refers to the items you want to have on your person every time you leave the house. By having at least some gear with you at all times, you'll be less likely to be caught off-guard by a sudden emergency.

Depending on where you work, you may not be allowed to have all these items with you every single day. For example, if you are an attorney, you probably visit courthouses on a regular basis. If you attempt to bring in even a very small folding knife with a blade about an inch long, you may never see it again.

CELL PHONE

A cell phone may turn out to be the most important emergency item you can carry. Make sure you have a car charger for your phone and get into the habit of plugging it in any time you get into the vehicle. This lessens the chance of a dead cell battery when you need the phone the most. You may also want to print up a small wallet card with important phone numbers on it. If your cell dies, you won't be able to access the contacts list.

MULTI-TOOL

A multi-tool isn't ever going to replace your toolbox but it is much easier to carry around. Spend the extra money to get something of good quality so it will hold up to regular use. If you've never carried one before, you may be surprised at how often you end up pulling it out of your pocket. While there are keychain-size models, I prefer the full-size ones. They aren't much larger than their smaller cousins and are much easier to use. Look for brands like Leatherman and Gerber and avoid the cheap look-alikes. The tools I use most often include a knife blade, pliers, wire cutters, and screwdriver heads (flat and Phillips).

POCKET KNIFE

A knife is one of the most important parts of any survival kit. As with the multi-tool, don't cheap out on this. Get something that is going to last. My favorite pocket knives are produced by companies such as Southern Grind and Victorinox. Buck is another very well-known brand and I've carried their Buck Folding Hunter knife on my belt off and on since I was a young boy.

CASH AND CREDIT CARD

Cash and a credit card are a necessary component of the urban EDC kit. Ideally, the credit card should be one with a zero balance and the only time you'll use it is in emergencies. This is not the card you'll use at Starbucks every morning. You want as much of an available balance as you can manage. While some disasters will end up negating the use of credit cards (e.g., major power outages cutting off computers), always try to use the card first if you find yourself needing to make a purchase or secure a motel room for the night. This frees up your available cash. Carry at least enough money to cover a motel room and a meal or two. This amount will vary, of course, based upon where you live. In the upper Midwest, maybe two hundred dollars would be enough. In New York City, that number might

have to double. Stick with small bills, nothing higher than a twenty. You may find it difficult for people to break larger bills.

FLASHLIGHT

One of the best flashlights I've come across is the Maxxeon Pocket Flashlight. Exceptionally powerful and in a relatively small package, it takes three AAA batteries. At 140 lumens, it is bright enough to even help as a self-defense weapon, blinding an attacker so you can escape. Another light I highly recommend is the Quark Tactical QT2A produced by Foursevens. It takes two AA batteries and at its maximum setting produces 246 lumens. It is solidly constructed and made to take a beating.

NOTEBOOK

A small notebook is great for jotting down notes, such as where you parked or the license plate number of the car that ran you off the road. Keep a pencil with it. Pens run out of ink or can freeze up whereas pencils can be sharpened with your pocketknife if need be. In the inside cover of the notebook, write down any important phone numbers. Today, many people rely on their cell phone speed dial, but if you lose the phone or the battery dies, will you know the numbers to call in an emergency?

FIRE TINDER AND IGNITION SOURCE

No kit is complete without the means to light a fire. Therefore, keep a lighter as well as a small stash of tinder with you. The tinder could be as simple as some dryer lint held in one of those keychain fobs normally used for medications.

PRESCRIPTION MEDICATION

Make sure you always carry enough prescription medications to last you one or two days. Use one of the aforementioned keychain fobs to keep it in.

EMERGENCY WHISTLE

A whistle can be of great help if you need to signal for assistance. The sound from a whistle will carry much farther than a human voice. You'll want this with you in case you end up trapped in a building due to fire or some other emergency.

SELF-DEFENSE WEAPON

This one is a judgment call and each person needs to decide for him or herself if they want to carry something for self-defense and, if so, what it should be. For many, at least here in the United States, the weapon of choice is a handgun. Should you go that route, I implore you to seek out the proper training. You should also carry enough ammunition to fully reload your weapon at least twice. A gun without bullets is nothing more than an oddly shaped club.

Other self-defense options include pepper spray, stun guns, Tasers, and expandable batons. Each has advantages and drawbacks, as well as issues of legality based upon where you live and work.

I know it all sounds like a lot of stuff but, really, most of it will fit into your pockets without much bulk. You can also make a keychain EDC kit, where several of the items, such as the knife, whistle, and fobs, are looped onto a keychain, which then goes into your pocket. This keeps all those items together easily. Another option might be to purchase a belt pouch to keep it all in.

EDC FOR CHILDREN

Even at a rather young age, children are able to carry at least a few things to use in case of an emergency. You're not going to give a four-year-old a nifty pocketknife, but, they can certainly carry a whistle in their pocket. That's a great place to start, in fact. Teach them to use the whistle if they ever get lost.

As they get older, add to their EDC gear as appropriate. While school rules will probably forbid the carrying of knives or

multi-tools, they can certainly have flashlights and cell phones. When you feel they are mature enough, let them carry small folding knives or multi-tools when they aren't in school, taking care to teach them the proper use and maintenance of them. In return, maybe they can teach you how to use your cell phone to surf the Web or perhaps even make a phone call. Speaking of telephones, consider printing out a small list of important phone numbers, such as home, work, and cell numbers for the parents, and the numbers for at least one or two other trusted adults. Laminate this list and keep it in your child's backpack.

APPENDIX C

WORKPLACE EMERGENCY KIT

In the event the weather or some other development forces you to hunker down at your workplace for a day or so, it is wise to assemble a workplace emergency kit you can keep at your desk or in your locker. This kit won't make you totally self-sustaining but will help you "over the hump" until you can get to your bug-out bag or other supplies.

EMERGENCY BLANKET

Your shelter needs will likely be already met by staying inside the office or factory building. While certainly not as comfy as home, at least you'll be out of the elements. An emergency blanket, such as those sold under the Heatsheets brand, will probably suffice if the power is out and no heat is coming through the ducts.

FOOD AND WATER

You should have enough food and water to last you two full days. Granted, that's probably overkill, but better to have too much than not enough. Concentrate on stocking this kit with food items that last a long time at room temperature and require no preparation prior to consumption. Examples include crackers with peanut butter, dried fruit, nuts, granola or protein bars,

and tuna in pouches. For your hydration needs, toss in a few large bottles of water.

LOOSE CHANGE

While you should have at least a few dollars in change to use in the vending machines, you shouldn't count on those machines remaining fully stocked for very long or working if the power goes out.

FIRST AID KIT

Most workplaces have at least some sort of first aid supplies somewhere on site. But, feel free to toss into your bag a small first aid kit. Some adhesive bandages, antibiotic ointment, burn cream, and the like will do. Nothing fancy, just stuff to handle a few scrapes or cuts. Whether you include a first aid kit or not, be sure to have enough prescription medications to last a few days, just in case you are somehow cut off from your regular supply.

FLASHLIGHT

A good quality flashlight or headlamp will make you the envy of your coworkers. Be sure to have at least one extra set of batteries. Having a portable light source will make moving around easier, even if it is only getting to the bathroom and back.

RADIO

Having a crank-powered radio will help you and your fellow employees stay informed about the situation at hand. You could go with a battery-powered, of course. If you go that route, make sure you have an extra set of fresh batteries for it.

HYGIENE KIT

A small hygiene kit will certainly be welcome. Just take a quart-size plastic bag and toss in a toothbrush, a small tube of toothpaste, a bar of soap, a washcloth, and a travel-size deodorant.

CHANGE OF CLOTHES

You may want a change of clothes as well. If nothing else, a spare pair of socks and undies can help you feel at least moderately clean.

BOREDOM RELIEVERS

Items like a paperback book, crossword puzzles, and the like will help keep you sane as well as help time to go by faster.

Keep all of these supplies in a small duffel bag and put it into your locker or to the side of your desk. Don't go digging around in it a week later, looking for a snack. This stuff should be treated as for emergencies only.

WORKPLACE EMERGENCY KIT CHECKLIST

- ☐ emergency blanket
- ☐ food for two days
- ☐ water for two days
- ☐ $5 in change
- ☐ prescription medication
- ☐ small first aid kit
- ☐ flashlight or headlamp with extra batteries
- ☐ crank-powered radio
- ☐ toothbrush
- ☐ travel-size toothpaste
- ☐ bar of soap
- ☐ washcloth
- ☐ travel-size deodorant
- ☐ change of socks and underwear
- ☐ full change of clothes (optional)
- ☐ entertainment item (book, cards, etc.)

APPENDIX D

GET-HOME BAG CHECKLIST

The get-home bag differs slightly from the bug-out bag, both in content and in intent. Where the bug-out bag is designed to get you from home to a safe location, the purpose of the get-home bag is simply to provide for your needs during your commute home in an emergency.

This being the case, the get-home bag is smaller and lighter than the bug-out bag. As a result, it is easier to store at work, such as in a locker or in the corner of a cubicle. You will also notice some degree of duplication between the get home bag described here (and discussed at length in chapter three) and the workplace emergency kit in appendix C. This is intentional and not an oversight. The idea is that you can augment your get-home bag with your workplace emergency kit if needed. Building survival kits is all about creating layers. One layer supplements the next, and so on. The get-home bag should contain the following.

COMPLETE CHANGE OF CLOTHES

The clothing you pack should be durable as well as comfortable for walking. Don't forget a pair of sturdy and comfortable shoes as well as thick socks.

FOOD AND WATER

Pack enough to last your expected journey, plus a bit extra. For many urban residents, their commute back home, even if on foot, may take only a few hours. That being the case, there is no need to pack like you're planning to traverse the Sahara Desert. Just some basic snacks, such as trail mix, dried fruit, and crackers, should suffice. For water, pack at least one filled liter bottle as well as water purification tablets or a small water disinfection unit.

SMALL FIRST AID KIT

Fill this kit with adhesive bandages, antibiotic ointment, moleskin, and pain relievers.

FIRE-STARTING GEAR

This includes items such as a butane lighter, strike-anywhere matches, and ready-to-use tinder such as dryer lint or WetFire cubes.

EMERGENCY BLANKET

Pack at least one emergency blanket, which can keep you warm as well as be used as a rain poncho or expedient shelter.

TOOLS

Pack a good quality knife and multi-tool. You'll also need a flashlight with extra batteries. I like the Quark Tactical QT2A or the Streamlight Stylus Pro.

Don't overlook work gloves. Given that you'll be moving through areas that may be filled with storm damage and other debris, gloves will protect your hands. And be sure to include a bandana, which has innumerable uses.

NAVIGATION

Pack a street map and compass so you don't lose your way.

COMFORT ITEMS

This includes sunglasses and a brimmed hat, such as a ball cap, lip balm, sunscreen and insect repellent.

SELF-DEFENSE WEAPON

This could be a handgun with extra ammunition, pepper spray, a stun gun, or an expandable baton.

All of these items will fit into a small pack or shoulder bag, which can be stashed just about anywhere at work, but check company policy to make sure it's legal to do so.

GET-HOME BAG CHECKLIST

- ☐ one complete change of clothes
- ☐ sturdy and comfortable shoes
- ☐ thick socks
- ☐ food (basic snacks, such as trail mix, dried fruit, and crackers)
- ☐ one liter of water
- ☐ water purification tablets or a small water disinfection unit
- ☐ small first aid kit (adhesive bandages, antibiotic ointment, moleskin, and pain relievers)
- ☐ fire-starting gear (butane lighter, strike-anywhere matches, and ready-to-use tinder such as dryer lint or WetFire cubes)
- ☐ emergency blanket
- ☐ good quality knife
- ☐ good quality multi-tool
- ☐ street map and compass
- ☐ flashlight with extra batteries
- ☐ sunglasses
- ☐ brimmed hat, such as a ball cap
- ☐ lip balm
- ☐ work gloves
- ☐ bandana
- ☐ sunscreen
- ☐ insect repellent
- ☐ self-defense weapon (handgun with extra ammunition, pepper spray, stun gun, or expandable baton)

APPENDIX E

VEHICLE EMERGENCY KIT

If you own a vehicle, you should have an emergency kit in the trunk, even if your normal commute to work is less than a few miles. This saves you from having to remember to put one in there on the rare occasion you take a drive longer than ten minutes. Plus, you may need that kit to help out someone else someday.

The following is a checklist of supplies that you should have in your vehicle emergency kit. Feel free to add to it as you see fit and consider these suggestions as the bare minimum of supplies. You'll notice that the majority of these items are geared towards getting you back on the road. If you end up stranded, due to weather or breakdown, you should have your bug-out bag in the vehicle for food, water, and other necessities.

Even if you are not proficient with basic vehicle repairs, having the tools listed may help someone else to assist you.

VEHICLE EMERGENCY KIT CHECKLIST

- ☐ wrench set (standard and metric)
- ☐ pliers
- ☐ screwdrivers (flat head and Phillips head)
- ☐ hammer
- ☐ wire cutters
- ☐ duct tape
- ☐ hose clamps
- ☐ spare fuses
- ☐ Fix-A-Flat
- ☐ work gloves
- ☐ eye protection
- ☐ flashlight (with extra batteries)
- ☐ road flares
- ☐ jumper cables
- ☐ two gallons of water or coolant
- ☐ two or three quarts of oil
- ☐ phone number for AAA or other roadside assistance
- ☐ brightly colored bandana to tie onto vehicle for visibility if stranded
- ☐ wool or fleece blanket for warmth if stranded
- ☐ charger for cell phone
- ☐ spare tire
- ☐ jack
- ☐ tire iron or 4-way tool to remove tire

APPENDIX F

BUG-OUT BAG CHECKLIST

Your bug-out bag should be kept in your vehicle or otherwise with you at all times. It is your lifeline in the event of disaster. The bug-out bag is designed to provide for all of your basic needs until you reach a safe location. Inspect the contents regularly and rotate the food and water every six months or so to keep everything fresh.

While bugging out in an urban environment seems like it would be very different than doing so out in the sticks, the same principles apply. You need ways to keep warm and out of the elements, stay fed and hydrated, stay clean and healthy, and stay safe from harm. The true differences lie in the means to achieve those goals. For example, you probably won't be building a debris hut in the middle of a large city. Instead, you'll be wrapping yourself up in an emergency blanket or draping a tarp above you to keep off the rain or snow.

SHELTER

Don't plan on packing any sort of tent, no matter how lightweight it may seem. The vast majority of tents, even the name brand models, just aren't durable enough for bugging out for any length of time. Zippers break, poles snap or get lost. Instead, just

get a waterproof nylon tarp and some cordage. You can fashion together a very workable shelter with just those two items.

- Heatsheets or comparable brand emergency blanket
- waterproof nylon tarp (10' × 13' or so)
- paracord (100')
- one complete change of clothes, season-appropriate
- waterproof nylon rain poncho
- knit watch cap
- warm gloves

FIRE MAKING

You should have multiple ways for getting a fire going. Even the smallest fire will provide you with light, warmth, and a means of heating food and water. While you may think campfires are something more suited for forests, where all those trees can provide fuel, there are many sources of fuel in urban areas as well, such as cardboard or scavenged wood pallets.

- butane lighters
- strike-anywhere matches in a waterproof container (I like the Exotac Matchcap.)
- fire steel
- magnesium block with ferrocerium rod
- flint and steel
- tinder (such as dryer lint or cotton balls soaked with petroleum jelly) in a waterproof container

FOOD

You want enough to last you three full days, minimum. Stick with food items that require little or no preparation. Canned goods are heavy, so avoid them if possible. Calories are important during a bug out, so forget about dieting.

- granola bars
- protein bars
- crackers

- nuts
- dried fruit
- peanut or other nut butters in foil pouches
- hard candy
- tuna in foil pouches
- eating utensils
- small, folding can opener or P-38 military-style can opener
- mess kit

WATER

There is no realistic or feasible way to transport all the water you'll likely need to consume during a multi-day bug out. Plan to carry some with you, as well as the means to filter or disinfect more along the way.

- two 1-liter water bottles, filled
- chemical water disinfection products (water purification tablets)
- coffee filters
- portable water filtration system
- portable desalination system (if living in coastal regions)

MEDICAL/FIRST AID

You aren't going to have space in your bug-out bag for a full-blown trauma center, complete with surgical equipment. Instead, focus on the injuries and ailments that are going to be the most common during a bug out, such as cuts, scrapes, and stomach upset. Avoid liquid medications, if at all possible, as they may leak after being bumped around in the bug-out bag.

- adhesive bandages, various sizes and configurations
- gauze pads
- medical tape
- scissors
- pain relievers (ibuprofen, acetaminophen)

- anti-diarrhea medicine
- antacids
- QuikClot® hemostatic sponges
- elastic bandages for sprains
- bandanas
- burn ointment
- antibiotic ointment
- alcohol swabs

HYGIENE

While you certainly won't be able to keep squeaky clean during a bug out, having just a few items with you can help you at least feel marginally human. Plus, the cleaner you are, the better your chances of staving off infections and illnesses.

- small washcloths or hand towels (2-3)
- travel-size bar of soap
- travel-size toothpaste
- dental floss
- toothbrush
- hand sanitizer
- roll of toilet paper (remove the cardboard tube and crush flat, then put in a plastic bag)
- travel package of baby wipes

TOOLS

The addition of just a few tools to your bug-out bag can make the difference between thriving versus simply surviving. While I'm not one to advocate breaking laws, if a life-threatening event is taking place and safety can be found on the other side of a locked door, I myself wouldn't hesitate about using a pry bar to open the door.

- good quality knife (the CSP model produced by Mission Knives is one great option)
- multi-tool

- flashlight or headlamp
- small pry bar
- keychain-size pry tool (I highly recommend the Boker titanium Vox Access Tool)
- hand trowel (for burying garbage and waste)
- contractor-grade garbage bags (several)
- duct tape
- paracord
- small notebook and pencil

NAVIGATION

To get to your bug-out location, or even just get home during a crisis, you should have the necessary tools to figure out where you are and how best to reach your destination. If your bug out takes you outside your normal routes, and that will most likely happen, these items will help you get back on track.

- compass (decent quality, not a dollar store bargain)
- maps of the area (street level as well as topographical for surrounding areas)
- handheld GPS (or have map software loaded on your cell phone)

DEFENSE

I recognize that not everyone lives in an area where they can legally carry firearms, so other measures should be considered. However, if you can legally own and carry a handgun, that is the preferred item to pack for defense purposes. Of course, along with that comes a requirement to not only receive training in the proper use and maintenance of the weapon but also regular practice to become proficient. If you have chosen to carry a firearm as part of your EDC gear (see appendix B), then you'll have this section of your bug-out bag covered already. But, you might consider still adding the noted extra ammunition and other supplies.

- handgun
- ammunition (100 rounds, minimum)
- cleaning kit
- holster
- pepper spray (choose stream over fog varieties)
- stun gun
- expandable baton

COMFORT ITEMS

There are a few items that, while not necessarily life-sustaining, can make a bug out more bearable. These things don't take up much space in the pack, either.

- lip balm
- wide-brimmed hat or ball cap
- sunscreen
- insect repellant
- inspirational items (pocket-size religious text, photos of loved ones)
- boredom relievers (small book, deck of cards)

INDEX

Dedication

To my boys, may you live long lives and never find the need for what is in this book.

Acknowledgments

First and foremost, I'd like to thank my lovely wife, Tammy, for her love, her support, her advice, and for putting up with me for so many years. I couldn't have done it without you, sweetheart. Also, thanks are owed to my boys, Andrew, Michael, and Thomas. I'm so very proud of each of you.

To Dad, thanks for your support and encouragement. I hope I always make you proud.

To Sean Neeld, thank you for all your assistance. Your friendship is treasured.

To Lisa Bedford, Doc Bones and Nurse Amy, and John McCann, I am honored and humbled to be able to call you both colleagues and friends.

To Chris Golden, well, amigo, we did it again. Thanks for always being there.

To all the members of the SW Street Team, hope you enjoy this one as much as you have all the others.

Finally, a huge thanks to all of my readers. You guys and gals are the reason I'm able to do what I love for a living. If you come to see me at an expo or something, please be sure to stop and say hello so I can thank you in person.

About the Author

Jim Cobb is a respected authority on disaster readiness. He has spent three decades studying, practicing, and teaching the skills necessary to survive after disasters large and small. His previous books include *Prepper's Home Defense*, *The Prepper's Complete Book of Disaster Readiness*, *Prepper's Long-Term Survival Guide*, and *Countdown to Preparedness*.

Jim is very active online and you can connect with him through any of these sites.

Facebook – www.facebook.com/jimcobbsurvival
Twitter – twitter.com/SurvivalWeekly
Survival Weekly – www.SurvivalWeekly.com
Disaster Prep Consultants – www.DisasterPrepConsultants.com

Jim loves to hear from his readers. Feel free to send him an e-mail to Jim@SurvivalWeekly.com.

 Published by Living Ready Books, an imprint of F+W Media, Inc., 700 East State St., Iola, WI 54990. (800) 289-0963. First Edition.

18 17 16 15 14 5 4 3 2 1

ISBN-13: 978-1-4403-3413-9

Distributed in Canada by Fraser Direct

100 Armstrong Avenue, Georgetown, Ontario, Canada L7G 5S4, Tel: (905) 877-4411

Distributed in the U.K. and Europe by F&W Media International, LTD

Brunel House, Forde Close, Newton Abbot, TQ12 4PU, UK, Tel: (+44) 1626 323200
Fax: (+44) 1626 323319, E-mail: enquiries@fwmedia.com

Distributed in Australia by Capricorn Link

P.O. Box 704, S. Windsor NSW, 2756 Australia, Tel: (02) 4560-1600

Fax: (02) 4577-5288, E-mail: books@capricornlink.com.au

Edited by Jacqueline Musser and Kelsea Daulton

Cover design by Clare Finney

Production coordinated by Debbie Thomas

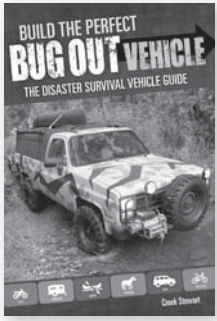
FREE

SURVIVAL KIT PACKING LISTS

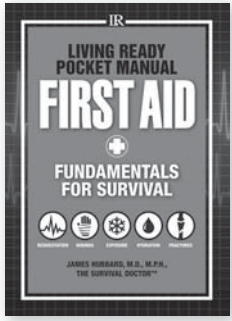
Download printable versions of the survival kit packing lists found in this book for free at www.livingreadyonline.com/urbanemergency. The download includes packing lists for:

- Everyday Carry Items
- Workplace Emergency Kits
- Get-Home Bag
- Vehicle Emergency Kit
- Bug-Out Bag

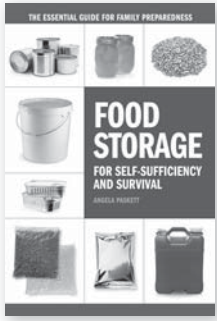
MORE BOOKS ON SURVIVAL AND PREPAREDNESS



Build The Perfect Bug Out Vehicle by Creek Stewart



Living Ready Pocket Manual: First Aid by James Hubbard, The Survival Doctor™



Food Storage For Self-Sufficiency and Survival by Angela Paskett

AVAILABLE ONLINE AND IN BOOKSTORES EVERYWHERE!

Join our mailing list at www.livingreadyonline.com.

Become a fan of our Facebook page: facebook.com/LivingReady

STAY SAFE IN THE CITY

HERE'S THE BOOK THAT WON'T ADVISE YOU TO FLEE THE CITY and set up a homestead to avoid potential disasters. With many other survival-planning resources emphasizing that approach, urban dwellers that plan to stay put in the city, no matter the circumstances, have been overlooked. Not only do 58 percent of Americans live in cities, but certain risks are higher in cities than elsewhere.

Urban Emergency Survival Plan delivers a common-sense approach to urban survival planning rather than advocating that city survivalists need to figure out a way to grow an acre of food, raise goats, and build an underground bunker. The clearly outlined approach here will help you to reduce the risks inherent in disasters that occur in well-populated areas.

Inside you'll find:

- packing lists for get-home bags, everyday carry items for adults and kids and bug-out bags
- an overview of threats that face an urban area and instructions for planning safe travel during and after disasters, as well as how to plan a temporary escape
- instructions for sheltering in place at work
- chapters on food storage and water procurement in urban areas with emphasis on limited space and budget
- a detailed chapter on security options in urban areas
- a detailed chapter on sanitation, first aid and shelter
- ideas for how to respond and cooperate with government disaster plans
- photos of important survival gear

Discover the skills you'll need to weather any storm, whether you live in an apartment, townhouse, condominium, single-family home or any other urban setting. With planning and practice, you'll gain the confidence to always feel safe in the city.

US $17.99
(CAN $19.99)
U9037
ISBN-13: 978-1-4403-3413-9
ISBN-10: 1-4403-3413-7
51799
EAN
9 781440 334139
UPC
0 35313 65959 1