Extreme Water Management Handbook

DISCLAIMER OF LIABILITY AND WARRANTY

This publication describes the author's opinions regarding the subject matter herein. The author and publisher are not rendering advice or services pertaining to specific individuals or situations. For specific advice, or if expert assistance is required, the services of a qualified professional should be obtained.

The author and publisher assume no responsibility whatsoever for the use of the information in this publication or for decisions made or actions taken based, in whole or in part, on the information in this publication.

The author and publisher make no warranties, express or implied, regarding the information. Without limiting the foregoing, the author and publisher specifically disclaim and will not be responsible for any liability, loss, or risk incurred directly, indirectly or incidentally as a consequence of the use or misuse of any advice or information presented herein. Use this publication and information with good judgment and do the best you can in your particular situation.

You agree to indemnify and hold the author and publisher, and their respective officers, directors, agents, employees, contractors and suppliers, harmless from any claim or demand, including reasonable attorneys' fees, related to your use or misuse of this publication or the information contained therein. You further agree that you will cooperate fully in the defense of any such claims.

Notice: As the purchaser of this electronic document you are permitted to store it and print it for your own personal use only.

COPYRIGHT

TERMS AND DISCLAIMER

By using, viewing, and interacting with this guide or the aquatowersystem.com website, you agree to all terms of engagement, thus assuming complete responsibility for your own actions.

The authors and publishers will not be held liable or claim accountability for any loss or injuries. Use, view, and interact with these resources at your own risk.

All products from aquatowersystem.com and its related companies are strictly for informational purposes only. While all attempts have been made to verify the accuracy of information provided on our website and within the publications, neither the authors nor the publishers are responsible for assuming liability for possible inaccuracies.

The material in this guide may include information, products, or services by third parties. Third party materials comprise of the products and opinions expressed by their owners. As such, the authors of this guide do not assume responsibility or liability for any third party material or opinions. The publication of such third party materials does not constitute the authors' guarantee of any information, instruction, opinion, products or service contained within the third party material.

The authors and publishers disclaim any responsibility for the inaccuracy of the content, including but not limited to errors or omissions.

Loss of property, injury to self or others, and even death could occur as a direct or indirect consequence of the use and application of any content found herein.

Getting a Water Management System Ready For Your House

It is imperative for you to review how well a water management system can work for you. You need such a system at your home for any cases where the water in your space might not be safe.

We all take water for granted these days. We use water so often that we never think much about what might happen if we don't have access to that water. Even worse, we wouldn't know what to do if the water in our communities was contaminated.

The threat of contaminated water is something that we cannot ignore. Contamination can cause waterborne diseases of all sorts.

There are many ways how your water could become contaminated as well. These include concerns like floods, extreme storms, earthquakes, wildfires, and pollution events. A flood or storm can cause a water treatment system to stop functioning accordingly. An earthquake could cause landslides to impact the water supply in a spot. Pollution-related concerns like wildfires could also be a threat due to ash, oil, and other items possibly influencing water supplies.

The good news is that you won't have to struggle with dirty water if you use a safe water management system. There are many processes with cleaning and storing the drinking water you can use in your management system to help you make the most of the most vital resource for your life.

Considerations For Getting Water

Start your plans for your water management efforts by looking at how you're going to gather water. You can get water even if the supplies in your area have been compromised for whatever reason.

Here are a few things to look at when getting water in your home if a water emergency develops in your space:

- Any water in your home's pipes can be useful for consuming, although it is best to shut off the water source first so no contaminants could come in the space.
- You can drink melted ice from your freezer as it thaws, although you would need to shut off the power beforehand.
- Never assume that clean water is safe for use. Sometimes clean water is unhealthy due to some metals or other compounds.

- Never drink floodwater, as that water may include some toxins from pollutants.
- Never eat snow as it will not hydrate you.
- Do not drink your urine, as it is unappealing and will not do anything for your body.
- Rain can be collected for drinking, but it is best that you filter the water first.

Purification Plans

You will need to purify your water to ensure you can consume it safely and without risking anything involving your health. The purification process will work to clean out any pathogens or other harmful materials that might be in your water.

You'll have to look a few methods for purifying the water. There are a few things to note before you go through with any of these methods:

- Review the quality of the water. You might have to filter the water if it is cloudy.
- Check on the possible contaminants near the spot that you would get the water from.
- Look at the source of the water. The water could have been running, but it could have also been stagnant and not moving.

Boiling

Your first option for purifying water entails boiling the water. The boiling process helps to kill off pathogens and various contaminants. You can use this to clear out cholera and other common threats in the water.

Here are a few things to note when boiling water:

1. Always use a lid over whatever you are heating. The cover will keep you from losing too much water from steam or condensation.
2. Keep your water at a rolling boil for at least five minutes, although ten minutes is best.
3. Add a minute to the boiling time for every thousand feet above sea level at your space.
4. Do not use gas, wood, or other burning materials inside an indoor or enclosed spot. The carbon monoxide produced can be fatal.

Iodine Treatments

Some other forms of purification that you can utilize entails the use of chemicals. Iodine is a material you can use in the purification process.

Iodine is a chemical that has been popular for use thanks to how well it can work. You can find iodine in many forms, including in liquid or tablet forms.

The process for using iodine entails the following steps:

1. Add 20 drops of iodine for every gallon of clear water you have or 40 drops for when the water is cloudy. You can also use a tablet or crystal provided you use the instructions on the packaging.
2. Allow the water to sit for 30 minutes.
3. Make sure the iodine spreads well enough to cover the entire water space.

The process should be easy to follow, but you must also ensure that only the right people in the household consume iodine. Iodine is not for those who are older 50 years of age, people with thyroid conditions, women who are pregnant, or those who are allergic to shellfish.

Also, iodine will become weak if exposed to light. Ensure the iodine does not get in contact with sunlight for the best results.

Chlorine

You can also use chlorine for your purification needs. Chlorine functions as an additive for treating pool water. The chemical also works in many cities around the world for treating water sources.

The best way to get chlorine is to find household bleach. You can use bleach that contains about 4 percent sodium hypochlorite, a compound that originates from chlorine.

You'll have to ensure that the bleach you use is pure and contains the sodium hypochlorite that you require. Do not use anything that has additives, perfumes, or other things that might be dangerous for someone to consume.

The steps for using bleach for chlorine in the purification process are as follows:

1. Keep the water that you will treat cool. Warm water will not respond well to chlorine.
2. Add about 8 to 16 drops of bleach for every gallon of water.

3. Stir the water to mix everything.
4. Allow the water to sit for about 30 minutes.
5. Review the scent in the water. A slight chlorine smell should appear. Add a few more drops of bleach and allow the water to spend once again.

Be sure you avoid using more than 30 drops of bleach for every gallon of water. An excess total would suggest that the water is too contaminated and should not be consumed.

Using Solar Power

Another solution you can use for getting water ready entails using solar power. Solar water disinfection is a helpful part of any water management system worth trying out.

Solar water disinfection helps you to kill off bacteria thanks to the ultraviolet rays that the sun produces. These UV rays can kill off many harmful pathogens, including the salmonella and cholera viruses.

The solar power that you gather can help you to kill off water quite well. However, this will only work when you're in a spot where you can get direct access to the sun's rays. The process will not work if it is cloudy or rainy out.

Here are the steps you can use for disinfecting your water with solar power:

1. Get a clear glass or plastic bottle ready. Make sure the bottle is clean. Aim for a bottle that has not been used for anything in the past.
2. Fill your container about three-quarters of the way with clear water. Avoid cloudy water as it will not be treated well by UV rays.
3. Close the lid on your container. Shake your bottle for about 20 seconds after you close it up. This is provided you have a lid.
4. Place the water container in a sunny space. Make sure you have direct access to the sun's rays.
5. Keep the container along a reflective surface to get more of the sun's rays. You can use this on a black surface if possible. Aluminum foil may also appear around the container.
6. Allow the bottle to sit for at least six hours. You could keep it out longer if the conditions are cloudy or if you are concerned about any bacteria that might be in the water.

Filtration

Another option you have for water management needs entails filtering. The effort is a practice that involves clearing out parasites and large forms of bacteria. Be advised that filtering does not kill off viruses like purification plans could.

The most common type of filter you can use for your water is a sand filter. The compound works in that you can run water through the sand until the water becomes clear. This can work as you produce a filter that you can strain the water through. You could add the sand alongside something like a coffee filter if possible. You would then slowly pour the water through to allow the sand to collect what you have.

You also have the option to work with different professionally-made filters for your needs. These distinct filters work by providing more detailed approaches to cleaning out your water. One of these management systems would have to be maintained regularly for the best results though. This includes ensuring that the filter is cleaned out well enough, what with the material often collecting lots of debris over time.

Distillation

Distillation is a practice that entails boiling or evaporating water. But the process goes one step further in that the steam or condensation is captured so you can get drinking water out of it.

The distillation process works well for removing many contaminants. The effort also helps you to get water out of any large body that you might gather it from.

The steps for distilling water include the following:

1. Fill a bowl or hole with the water you want to procure.
2. Add a small container in the center of the bowl.
3. Apply a plastic sheet over the vessel. Keep the sheet as tight as possible.
4. Add a few stones or other items in the middle of the plastic. The stones should weigh the plastic down towards the smaller container in the middle.
5. Place the bowl in a sunny space where the sun’s rays and heat can reach the bowl.
6. Allow the bowl to sit for a few hours. The bowl will produce condensation, which will slide into the container in the middle thanks to the plastic sheet being bent down to collect the water.

Extra Tips For Managing Water

All of the methods you've read about are sensible points to see when handling water in the right way. But there are a few things you need to notice when getting a water management setup ready:

1. Always turn off the water valves in your house if a local authority states that the water in your area is unsafe to drink.
2. Fill your bathtub and any other possible water buckets before a major storm comes in your area. This is to ensure you'll have a few days of water if anything happens.
3. Never ration your water after a while. You need at least a liter of water a day to prevent dehydration. The effects of dehydration can be risky and can include dizziness, headaches, and fainting.
4. Always drink the safe water that you have first for your safety.
5. Avoid drinking caffeinated beverages or alcohol instead of water. These might cause your dehydration to become worse.
6. Make sure you have at least three days of drinkable water in your home for your safety needs.
7. Always use safe containers for handling your water. You can use water bottles or food-grade buckets as needed. Larger plastic barrels that can handle about ten or more gallons of water at a time may also help.
8. Any container you use should be rinsed off with a mild soap detergent and then rinsed off with clean water before use.
9. Keep any water that you plan on storing chilled for the best results. Water that stands might grow algae or other materials that might be risky for consumption.

The general water management plans that you will put in are important to your success when it comes to your safety. You have to make sure you manage your water appropriately whether it entails filtering or purifying your water or ensuring it is stored accordingly. You must see that your water is safe for use and that you manage it accordingly.