

# Water Storage-Forage-Conservation

By Jed Norwood

**Special 10% discount offer at bottom of document for Orem Hillcrest Stake members.**

\*Note: redundancy is the key to successful thriving in a survival situation. With Water Foraging, as well as other survival topics, when you have more than one way to provide a need you are in control of the situation. Plan ahead and think of all the possible scenarios. Think in terms of a base or central hub. Then plan for mobility and portability in three tiers:

- With vehicles
- On foot as a group
- On foot individually.

## Foraging for or Harvesting Water:

Know your water sources; distance, reliability, and cleanliness. Map them and rank them. Remember water is heavy! Plan accordingly. If you don't have it you will die and or have to go to where it is. Rain and snow fall are your cleanest and softest sources! A 1,000 Square foot roof in northern to central Utah will capture per year 30k - 40K pounds of water per year. This equates to 7.5k to 10k gallons annually.

## Daily Water Needs:

Each person should have 1 gallon for drinking. Everything else should be additional. It is recommended that you store a minimum 2 weeks of water per person 14 gallon drinking/cooking and 14 gallons for all other purposes such as hygiene, cleaning and laundry. You will need more for reconstituting dehydrated foods and sprouting grains.

Proper treatment of water is to: **Pre-filter -> Filter -> Biocide/Boil -> Drink**

**Pre-filter** - Use a sheet, towel or filter sock to catch all large debris.

**Filter** (\*I like to have different types of filters as backup and redundancy in my planning.)

- Towel filter
- Ceramic filter
- Hollow Fiber Membrane filter

## Biocide:

Treat water to kill any bacteria and to prevent growth of bacteria in stored water. Use Dichloride (not Bleach). Dichloride is in crystal form and has a shelf life of 5-10 years where as bleach has a shelf life of 6 months and then it starts to break down and loose its' potency. Iodine also can be used and has a longer shelf life 3-5 years. Grapefruit Seed Extract is also used for water treatment as a natural antimicrobial and antibacterial agent. (There is some controversy on this so do your research.) \* The American Red Cross states that only household bleach should be used and that other chemicals mentioned above do not contain 5.25% hypochlorite.

## Storing Water:

Store water in food grade containers, sun resistant containers, or in dark location. Also store off of cement, i.e. on carpet or wood blocks. ALWAYS treat stored water by boiling or a biocide before use.

**UNSAFE drinking water containers** include:

- Bleach bottles are not safe for drinking and cooking, but can store water for other purposes.
- Plastic milk containers are biodegradable and develop leaks easily.
- Water beds have algacide and other chemicals making it unsafe for drinking or cooking.

**SAFE water storage containers include:**

- 55 Gallon food grade containers (New or used are fine just clean and treat properly before use).
- 5 Gallon heavy duty plastic containers.
- 5 -6 Gallon Mylar Storage bags — these stage well in cardboard boxes, but I prefer storing in barrels to protect from rodents.

**Treating Barrels and Plastic Containers:**

Whether new or used you want to always pre treat them before use to kill any pathogens and to remove pesticides. This is done by placing them outside in the sun for two weeks in the hot months of the year. Completely fill with water and 1/2 cup of chlorine. After two weeks empty and fill with water you intend to store and stow.

Make sure that any plastic containers you use are food grade for storing water. If they do not block sunlight they must be stored in non lit areas to avoid bacterial growth.

**Water Conservation:**

- Any and all liquids should be conserved, i.e. liquid in canned vegetables, fruit juices, canned or bottled drinks and melted ice. Water in your toilet tank and bowl, water heater and home plumbing are all viable source of water. Use as little as possible for washing and bathing. Sponge baths once a week. Recycle all grey water. Waste not, want not! DO NOT FLUSH!
- Hand water gardens. Ladle water directly to base of plants. Urine diluted will help plants. The main elements in urine are Urea, Nitrogen, Phosphate, and potassium. \*Note that urea breaks down into ammonia. All of these elements are found in commercial fertilizers.

**Distilling Water:**

Use the sun and you will save on energy too! The use of distilled water will help reduce infection in cleaning wounds and any medical procedures. It will also help in preserving foods or making dairy cultures such as yogurt and cheeses as well as vinegar. Use distilled water for medical cleansing.

**Pasteurization:**

Water and foods can be pasteurized to kill pathogens. The pasteurization temperature is 180 degree Fahrenheit. Keep it at this temperature for 30 minutes and you are safe. A WAPI this device tells you when the liquid has been pasteurized. Sun Ovens are great for this.

**Sanitation:**

Use water as sparingly as possible to conserve for drinking. Tips to help in sanitation and conserve water are.

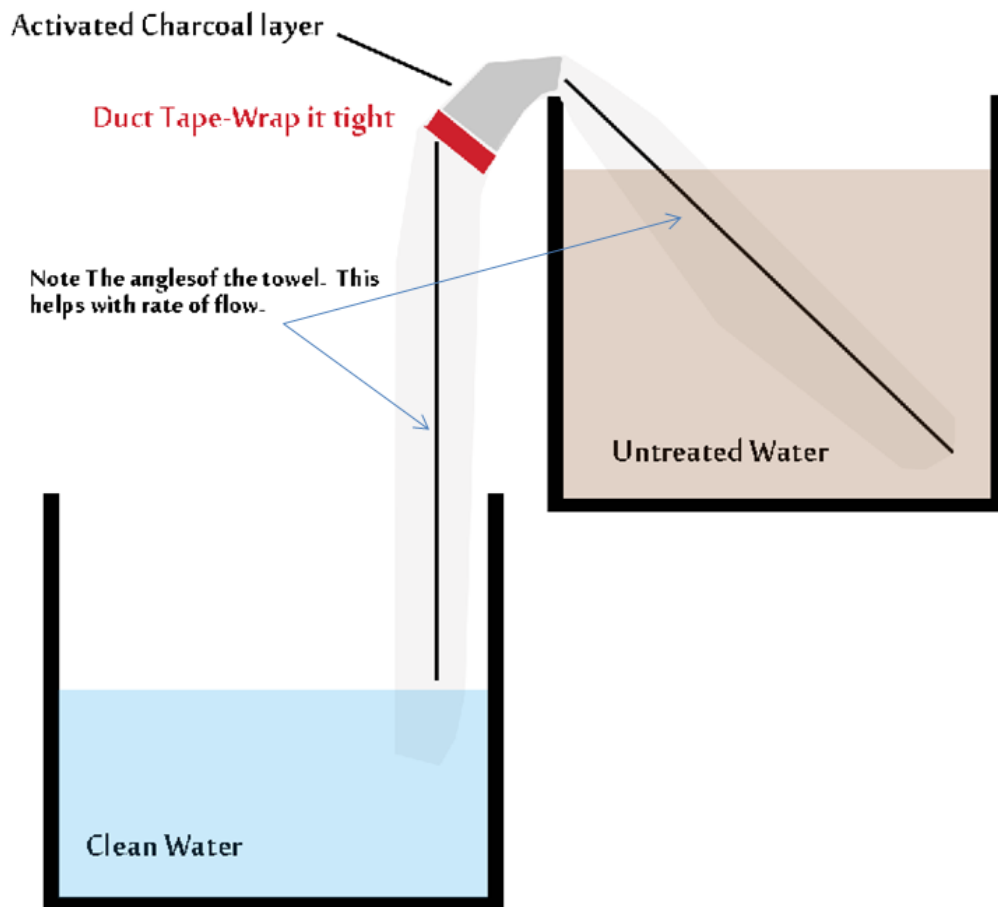
- Turn off water to house in an event. BY turning off the water you can avoid contamination and use those sources.
- Turn off water to all toilets individually.
- Plug the toilet with a tennis ball that has been well coated with Vaseline. A towel coated in the manner will also work well. Or a 4" test plug.
- Plugging your plumbing at the safety check outside your house as well.
- Use hand sanitizer and baby wipes when possible to conserve on water use.

**Disposal of Human Waste:**

- Dispose of human waste in the following manner--KEEP SEPARATE Urine and fecal matter.
- Bury fecal Deuteronomy 23:13 And thou shalt have a paddle upon thy weapon; and it shall be, when thou wilt ease thyself abroad, thou shalt dig therewith, and shalt turn back and cover that which cometh from thee. Bury fecal matter with sawdust, wood chips or chopped straw. PDF diagram will be posted at [www.ishallfearnothing.com](http://www.ishallfearnothing.com).
- When possible use a septic system, commercial or make shift or a composting toilet.

- Urine has soil improving qualities in it. Urea which breaks down into ammonia, nitrogen, phosphate, and potassium. Dilute with grey water to use in gardens, shrubs or trees.

## Towel Roll Filter



### Materials Needed:

- 2 containers
- 1 white towel
- Clear Plastic cut 4" larger than towel
- Activated Charcoal
- Duct tape

Water filtration kits are available. They include all the proper pre filters and full filters hollow point fibers for portability and longevity and activated charcoal impregnated ceramics for safety and flavor. The filter kit is equipped to filter from .1 to .02 microns. With reusable storage pouches. These kits are designed to be portable and allow you redundancy and ease of use. The packages are customized for a single individual to the large family needs. These kits are also designed for longevity of use out performing most filtration systems in volume of filtration with the hollow point fiber filters being capable of upwards of 1 million liters or 750,000 gallons, making the cost per gallon just pennies on the dollar. You can't go wrong with that and the ease of use all the filters are gravity fed so a child can do it.

Please call for details on the package size that fits your needs. Also receive a 10% discount if you use the coupon code: OHSSTAKE. If you have questions regarding any part of the water treatment process I can be reached at 801-492-0511 or email me at [www.ishallfearnothing1@gmail.com](mailto:www.ishallfearnothing1@gmail.com).