EMERGENCY PREPAREDNESS - POTABLE WATER

Sources:

In preparing for water shortage be sure to store water of known good quality, and never use alternative sources except in the case of an emergency:

- Approved public drinking water system (PWS) - example cities, rural subdivisions
- Private well or spring - tested free from Coliform bacteria
- Distilled or bottled water - assure water has been tested to meet (PWS) standards
- See alternative sources for emergency water uses

Alternative Water Sources:

In an emergency, other sources of water may need to be used. Further treatment of this water will be necessary.

- Hot water tank - be sure gas or electricity is off, and drain the water from the valve near the bottom of the tank. Do not turn on the gas or electricity while the tank is empty.
- Rainwater can be collected through a variety of methods.
- Streams, rivers and other moving bodies of water.
- Ponds, lakes, and springs.
- Melting snow.
- Alternative sources may have bad odor and taste, but may also carry disease-causing microorganisms. All water of uncertain purity should be purified before using for drinking, food preparation or hygiene. Boiling or sanitizing will kill most bacteria, but will not remove other contaminants such as heavy metals, and other chemicals. Strain out any floating matter, and treat for all bacteria and Giardia removal.

**NOTE: Do not use flood waters as they are highly contaminated**

Water Storage:

- Plan for a 3-day - two week supply depending on what you anticipate your needs to be.
- Purchase your containers now. Don’t wait until the emergency to happen.

Quantity:

- A normally active person needs to drink at least two quarts of water each day. Children, nursing mothers, and ill people need to drink even more. Elevated temperatures can increase this amount even further.
- Water will also be needed for food preparation, cleanliness, and personal hygiene.
- Total storage should equal a minimum of one gallon of water per day for each family member.

Storage Containers: Use plastic or glass containers
Select containers, which are NSF approved, or are "food grade" containers.

- Containers should block light, unless stored in a totally dark place.
- Containers should be easily handled, and easy to pour or pump water from.
- Never use containers that have held toxic substances, including cleaners, oil, paint, etc. Avoid using containers that will decompose or break.
- Drums - locally available in various sizes, 55 gallon is typical. Spigots and pumps are available for easy water removal. Recommend storage in basement.
- Five gallons or less - Five gallon food grade containers are easy to handle. Two liter soft drink bottles are also easy to handle, store and pour. Water purity may deteriorate more quickly.
- Seal containers tightly, date, and label.
- Store containers in a cool, dark, dry place where they will not freeze.

**NOTE:** RV unit water storage tanks, and cleaned and sanitized milk jugs may also be used.

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**Cleaning and Sanitizing Containers:**

Be sure to clean and sanitize all containers prior to use.

- Wash repeatedly with household detergent and rinse repeatedly with warm water.
- Caution: Detergent residues in stored water may result in severe stomach upset.
- Follow by sanitizing properly prior to filling with water.
- Use a warm water sanitizing rinse mixed as follows:
  - Mix 1 tsp. household chlorine bleach with one gallon water.
- Rinse containers for approximately 20 seconds, and allow to air dry.

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**Water Treatment:**

Stored water should be treated in order to prevent or minimize microorganism growth during the storage period.

- Chlorine bleach will act as a preservative when storing your water. Use liquid bleach that contains 5.25% sodium hypochlorite (found on label). Do not use scented bleaches, bleaches with cleaners or other additives.
- Add 16 drops of bleach to each gallon of water to be stored. This equals roughly one teaspoon for every five gallons.
  - **NOTE:** 3 tspns = 1 tbspn; 16 tbsp = 1 cup
- Do not over treat.
  - **Note:** Chemical treatment is intended for bacteria free, potable water. This treatment may not always remove Giardia or cryptosporidium cysts. If water quality is unknown, be sure to test and/or take further steps in water treatment prior to storage.

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**Other Water Treatment:**

- **Boiling** - Easiest method for bacteria removal.
  - Bring water to a full rolling boil for 3-5 minutes and allow to cool.
    - **NOTE:** Can pour back and forth, or shake to put air back into water for taste
- **Filtration** - water filtration units for various biological and other contaminant’s removal. Always refer to the product label for specific information.

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**Water Conservation for Emergencies:**

Some practices which will help conserve water in emergency situations:

- Use disposable products wherever possible to conserve water use.
- Reuse gray water for toilet flushing. (gray water = previously used water, such as dishwater, bathwater, etc.)
- Use alternative sources of water (stream, spring, etc.) for gray water or toilet flushing whenever possible.