

Emergency Preparedness – Water-1

Summary

- Residents should have food and water for **at least** 3 days per person, but...
- If possible, a 2-week supply per person is recommended
- This document provides basic information on water storage, access and purification. For additional information see Water-2 (in prep).
- For information on food supply, see Food-1 (Food-1)

Why do I need to store water?

Few things are as essential to healthy survival as an adequate supply of pure drinking water. Dehydration is a dangerous and insidious condition that attacks both physical and mental abilities. Impure water can cause disease outbreaks that disable an entire community. In a major disaster with regional damage, such as an earthquake, municipal water supplies and commercial sources will be shut down.

What and How to Store

- Water can be purchased in a variety of containers. We assume plastic bottles ranging in size from one pint to one gallon. See also Water-2 (in prep).
- Pure or purified water can be stored in clean containers ranging from bottles to [Water Bricks](#) or drums. See Water Purification below, and Water-2 (in prep).
- Most beverages are primarily water, and can be counted as part of a water supply. This includes distilled as well as drinking water, soda, juice, beer, many of the liquids in canned goods, and (unspoiled) milk. See discussion in Water-2
- The US FDA has determined that properly stored water does not “expire” or require replacement. Proper storage avoids temperature extremes and direct sunlight. Do not store plastic bottles directly on concrete (use a pad).

Water Use Considerations

Be sure that your stored water is easily accessible, with at least some of it in containers that you can easily lift and carry, or take with you if you must evacuate. Large containers may be more efficient to store, but are hard to move and may require accessories such as spigots, pumps, or cradles. See Water-2 (in prep).

Water Handling

Acquiring and purifying water from various sources requires certain supplies for containing, transporting, and purifying the water. These include:

- Pails, large pots, other large-mouth containers, preferably with handles. Trash receptacles lined with garbage bags can be used, but are awkward to handle.
- Filter materials for purification – coffee filters, sieves or colanders lined with multiple layers of paper towels or fabric (e.g., tee-shirts).
- Containers of convenient size to receive purified water or water received in bulk.

NOTE: RVM’s backup water supply is a groundwater well that yields potable water. The water would be pumped into a tank on a truck and delivered to various collection points on campus, where it would be dispensed from a faucet or hose.

Water Purification

If potable water is not available, impure or suspect water can be collected and purified of biological hazards (disease producing agents).

Apart from toilet tanks and water heaters, the major sources of external water are streams, and in the rainy season, rainfall. For stream water, Larsen Creek is probably better than Bear Creek. Tarps or plastic sheets can be used for catchment, but the easiest way to collect rain is to tap into downspouts or gutters. This requires a receptacle and some basic tools, which can be shared among neighbors.

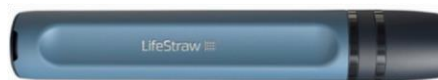
Purification requires two steps, filtration and chemical treatment. Filter the water through paper or cloth material until it is clear. If you can’t filter it, let the water stand until all the particles settle, and carefully pour off the clear water.

For simple chemical purification, use **plain chlorine-containing bleach, (no perfumes, colors or other additives)**. See Sanitation-(Click Here). Add 4 drops per quart or ¼ teaspoon per 2 gallons, and wait 30 minutes. Repeat if the water does not have a slight chlorine odor.

Ultrafilters are a non-chemical purification tool that can be used anywhere. Products like [LIFE STRAW](#) screen out bacteria, viruses and other biological contaminants as well as microplastics. A straw costs \$15-20 and a filtered bottle, about \$30. They are light, compact, and ideal for your go-bag (See Go-Bag-1, in prep) as well as home use.



LifeStraw Personal Water Filter
Amazon -- \$15



LifeStraw Peak Series Straw
Amazon -- \$20



LifeStraw Peak Series Collapsible Squeeze Bottle Water Filter System
Amazon -- \$38

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