

## Water in Emergencies: TIPS for RVM Residents\*

*Recommended preparedness actions are to store two weeks worth (one gallon per day) of drinking water (or water based beverages) per person. Below are:*

1. *Basic “just do this” instructions for 3 simple water storage options.*
2. *Explanatory material about health and water needs.*
3. *Actions to be prepared for in case there is not enough safe drinking water available.*

See the RVM Emergency Guide for additional information

The Food & Drug Administration says that commercial bottled water is safe indefinitely as long as it is properly sealed and stored. The International Bottled Water Association says that good storage involves no direct sunlight, no temperature extremes, and no nearby chemicals (cleaning products, automotive fluids, etc.). Do not store plastic bottles directly on concrete; put a layer of cardboard underneath.

If you store tap water: (1) Use food-grade plastic, glass or stainless steel; (2) wash the container with hot soapy water; (3) rinse thoroughly with a 50% solution of plain household bleach (no scents or colors added); (4) Before sealing, add 8 drops of bleach per gallon, and close with a leakproof (gasketed) cap, or tightly wrap the joint between cap and bottle with several turns of vinyl electrical tape.

### **1. Very basic preparedness options:**

1.1 Buy 14 one-gallon plastic jugs of drinking or distilled water (~\$1 each) per person. Get screw-cap rather than snap-open lids (better for reuse). Get bottles without dents or creases, and do not stack anything on top of them.

Pros: Cheap, simple, light enough to lift, carry and pour.

Cons: Storage is awkward if space is limited, can't be stacked. Puncture or crack easily

1.2. Collect used jugs, treat as indicated for storage above, and label with date, contents, and treatment. Otherwise the comments under 1.1 apply.

1.3 Buy 4 WaterBricks (3.5 gallon capacity) per person (<https://www.waterbrick.org/>); \$26 at [amazon.com](https://www.amazon.com); also available in 1.6 gal. @ \$20.

Pros: stackable, convenient size & shape for storage, good handle, spigot cap available, sturdy, usable for storing dry food or other supplies

Cons: expense, weight full (29 lb.), caps can be hard to tighten/loosen, need to check cap seal for leakage.

Comments: label as for jugs.

1.4 In addition to one of the above options, have a small pail or other large portable container available in case water has to be picked up from a central distribution point or remote source.

## **2. Water and Health**

2.1 Basic Needs: Most people under normal circumstances need to drink 2 quarts of water per day, or a bit more. This includes the water that comes from moist food, so you don't need to store extra water for dehydrated food – it's already figured in to the gallon per day.

2.2 Possible Needs: Why do we store a gallon (4 quarts) per day? Because emergencies aren't normal circumstances. High temperature, exertion, or water loss through diarrhea or vomiting can cause your water need to increase dramatically.

2.3 Hydration: Dehydration can be a serious problem, with results ranging from loss of functional capacity to heat stroke and death. The easiest way to judge hydration level is by the color of your urine; if it is any darker than pale yellow, you need to drink more water.

2.4 Other Sources: Most beverages are largely water. If you normally keep an inventory of soda, juice, beer or wine you may need to store less water. Water equivalents (adjusted for diuretic effects) are: water, tea, soda, energy drinks, 100%; coffee and beer, 90%; wine, 80%.

## **3. Dealing with impure water**

3.1 If you run out of drinking water and RVM cannot supply any, you will need to be able to purify available water. The two most likely sources are (for cottage residents in the rainy season) runoff from your roof or other surface, or Larsen Creek (avoid Bear Creek if possible). Filter unpurified water before treating.

3.2 We STRONGLY RECOMMEND that you have an ultrafilter (Lifestraw or one of many other brands -- \$15-20 for the individual unit) <https://www.lifestraw.com/>, or <https://www.amazon.com/LifeStraw-Personal-Camping-Emergency-Preparedness>. You can drink directly from any water source with the personal unit, and larger ones are available for batch-processing water. Also excellent for your evacuation kit.

3.3 Keep a bottle of plain (no colors or scents) chlorine bleach in your emergency kit. It can be used for sanitizing surfaces and disinfecting water. Use 8 drops of bleach per gallon of water; double the amount of bleach if the water is cloudy, colored, or very cold, or if your bleach is more than a year old. Mix well and wait 30 minutes. (<https://www.epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water>). For stream, river or lake water, a bromine-based purifier is better than chlorine.

*\*This document has been prepared by the Residents' Preparedness Group and the Residents Council to assist RVM residents in preparing for emergencies, including disasters such as the Cascadia great earthquake that is expected to occur within the next several decades. It is oriented toward cottage residents, but most of the information is relevant to those who live in apartments as well. The information provided does not necessarily reflect RVM policy.*