



Emergency Water Supply

by Art Nash

Clean water is essential, and that is why emergency planners say you should have 7 gallons of water per person (and pet) in case you need to evacuate. The water should be stored in clear containers that will allow UV rays to help disinfect it naturally. These containers should be moveable over different terrain. Round 3-6-gallon jugs tend to work best. Remember, water weighs 8 pounds per gallon.

Clean water from private wells or public water systems should be stored away from household cleaners or any other volatile organic compounds. It is always best to rotate out the stored water every six months.

If you haven't stored water and your regular source is not potable, you may have 60 gallons stored in your hot water tank. When the disaster hits or just prior if you have advance warning, turn off the water supply to the house to prevent contamination from the supply source. You can use ice or any other frozen water in the refrigerator by thawing it. Water in the toilet tank (not in the toilet bowl) can be used if it doesn't have a hanging deodorizer or other chemicals.

If you happen to have gutters on your home, you can redirect and use rainwater. Ponds can be used, but remember that they may be contaminated if the water is brackish, smells or if there a sheen of material floating on it. If you rely on city or municipal water, you may be asked by the water utility to boil it. Heat the water to a full, rolling boil for at least one minute. Check with the utility or the Alaska Department of Environmental Conservation for bulletin updates.

There are other ways to get rid of bacteria in city or well water (but NOT chemical contamination). You



can add a drop of regular, unscented, dye-free bleach to a quart of water, but allow it to take effect for a half hour before using the water. That comes out to a half teaspoon per 10 gallons if the water is clear. If cloudy, double the amount of added bleach. You can use a filter in a straw, cup or pump unit. You just want to make sure it filters out particles larger than .5 microns. If the water is disinfected and tastes flat, you can freshen the water by pouring it back and forth several times between two clean jars or food-grade containers.

<u>Volume of Water</u>	<u>Amount of 6% Bleach to Add</u>	<u>Amount of 8.25% Bleach to Add</u>
1 quart/liter	2 drops	2 drops
1 gallon	8 drops	6 drops
2 gallons	16 drops (1/4 tsp)	12 drops (1/8 teaspoon)
4 gallons	1/3 teaspoon	1/4 teaspoon
8 gallons	2/3 teaspoon	1/2 teaspoon

Source: Environmental Protection Agency



After flooding, wells sometimes need to be disinfected. If you are in doubt, disinfect. Remove the sealed plates from the top of the well casing. Then pour chlorine bleach down the well casing. Follow this up with running or pouring available water down the casing until you smell the chlorine scent of the bleach. Then reapply the well plates. Inside the house, run the pump and turn on the faucets until you smell chlorine, then close them. Let the chlorine solution stay in the pipes for at least two hours. Open

faucets and run the water until the chlorine odor is gone. If you have an in-line water filter, replace the cartridge after the disinfection is complete. If you have a water softener, bypass that before disinfecting.

Another way to ensure a safe water supply during an emergency is to make sure that you have a portable water filter. They can be purchased at camping and hunting stores and can clean water to human consumption standards easily from almost any source.

After an earthquake or flood, it is also a good idea have your water tested to make sure that it is free of contaminants. For more information on contaminants in water, see Extension's publication "Contaminants in Alaska's Water Resources," GWQ-00552, or call Art Nash at 907-474-6366.

Remember, one of the most important elements in an emergency or disaster — especially in case of a prolonged electrical outage — is water, for keeping hydrated during stressful times, for disinfecting and for preparing food. Take care of your water and it will take care of your health.

www.uaf.edu/ces or 1-877-520-5211

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