## SPLASH INTO EXTENSION

Emergency Drinking Water Supplies

Nebraska has lost more
than one third of its
wetlands in the last 125
years. At the time of statehood in 1867,
Nebraska had an
estimated 2.9 million
acres of wetlands, which
covered about six percent of the state, according to T.E. Dahl of the U.S. Department of the Interior, Fish and Wildlife Service.

Why have an emergency water supply? We often take our household water supply for granted. However, when safe drinking water is unavailable it can become a health emergency. Hurricanes, tornadoes, floods, and winter storms are examples of natural disasters that can interrupt the supply of safe drinking water. Interruptions may be for only a short period of time, or for days. You may be able to purchase bottled drinking or distilled water at the time of need, but stores may quickly sell out.

How much water should I store? Everyone's needs will differ, depending upon age, physical condition, activity, diet and climate. Most people need to drink at least two quarts of water each day. Hot environments can double the amount needed. The amount of water you need will also depend on the total amount of juices, soups, other drinks, and high moisture foods that are available. Children, nursing women, and ill people will need more. You can minimize the amount of water your body needs by reducing your activity level. Additional water will be needed for food preparation and hygiene. In general, store at least one gallon of water per person, per day of expected need. If you have pets, allow 1 quart per day for each pet. Storing at least a three-day supply is recommended, but consider storing a two-week supply if your home has enough space for it. Rotate or use the stored water supply every six months.

What containers should I use? You can store water in food grade plastic or glass containers with tight fitting screw-on caps. Food-grade containers include those that previously held beverages, such as 2 -liter soda bottles and other water, juice, or punch containers. Plastic milk bottles should be avoided, because it is difficult to remove protein and fat residues, which may allow bacteria to grow during storage.

You can buy new plastic containers for water storage in most housewares and sporting goods departments, and clean food-grade containers may be available for purchase at water vending machines. Only purchase containers labeled for storage of food or beverages.

Containers not labeled for food or beverage storage could release harmful chemicals into the water. Never use a container that has held toxic substances, tiny amounts may remain in the container's pores. Some plastic containers may affect the taste of stored water. Chlorine bleach bottles may be a food approved plastic, but contain an anti-static agent which prevents accumulation of dust during storage and are not recommended. Most plastics used in waterbeds are not approved food storage plastics. Avoid using containers that will decompose or break, such as milk cartons or glass bottles. Some old glass jars were made with glass that contains lead, and unacceptable amounts of lead can leach into water stored in them even for short periods.

How should I prepare the containers? Wash the containers and lids thoroughly with hot tap water and dish detergent. Rinse thoroughly with hot tap water.

## Can I store my tap water?

If you are on a municipal water supply, the water you are currently using for drinking and cooking should also be suitable for storing for emergencies. Municipal water supplies include public water supplies such as "city water" or "county water".

Private water supplies include individual wells and springs. If you are on a private water supply, it is recommended that you buy bottled water to store. Be sure the bottled water label has the IBWA (International Bottled Water Association) or NSF (National Sanitation Foundation) seal, or an NYSDH certification number. These organizations require periodic water testing and inspections of the bottling facility. Only sealed, unopened bottles should be stored.

If you have a private water supply, a generator will allow you to continue pumping water during a power outage. Contact your local Extension Office for information to safely use a generator.

Should I boil the water before storing it? Boiling the water before storage is not recommended. It will not prevent all problems that may occur during storage. In addition, boiling may concentrate other contaminants as the water evaporates away.

What if I have a water treatment device? If you are on a municipal water system, water from a properly installed and maintained treatment system may be stored for emergency use. It should be treated the same as untreated tap water from a municipal supply.

If you are on a private water system, you should still consider purchasing bottled water for storage. Most water treatment systems and purification pitchers are effective for treating some types of contaminants, but may not remove other types of contaminants at all. Most improve water for day-to-day use, but do not remove the contaminants we are concerned about during storage. If a person on a private water supply has a whole-house treatment system that includes a process such as reverse osmosis or distillation, the water could be safe to store if the system was installed correctly, and if the owner has properly maintained the system.

How should I treat the water for storage? Be sure that the water you are treating is drinking-quality water to begin with. To treat water for storage, use liquid household chlorine bleach that contains 5.25 percent sodium hypochlorite. Do not use bleach with soaps or scents added. Add the bleach according to the table below, using a uncontaminated medicine dropper. 4 drops bleach per quart container of water; 8 drops bleach per 2-quart or $1 / 2$ gallon container of water; 16 drops bleach per gallon container of water

Stir the water and allow it to stand for 30 minutes. Chlorine should be detectable by odor after the 30 minute waiting period. If the water does not smell like chlorine, repeat the dose and let it stand another 15 minutes. Attach labels describing the contents and when each was prepared.

Water stored in metal containers should not be treated, prior to storage, with chlorine since the chlorine compound is corrosive to most metals. Therefore, only very pure water should be stored in metal containers.

Where should I store the water and for how long? Store containers in a cool, dry place away from direct sunlight. Because hydrocarbon vapors can penetrate polyethylene plastics, store water in plastic containers away from gasoline, kerosene, pesticides, or similar substances.

For best quality, replace water stored from a public, or vended water supply every six months. For commercially bottled distilled or drinking water, check the label for an expiration date. To improve the taste of water stored for a long time, pour it from one clean container to another clean container several times, to put air back into it.

You can also store water in the freezer. If you lose electricity, the frozen water will help keep foods frozen until power is restored. Leave 2 to 3 inches of air space in the top of containers before freezing, to keep the container from breaking as water expands during freezing.

With only a small amount of effort and money, your family can be prepared with this most important necessity: a safe, adequate supply of drinking water during any natural disaster or power outage.

Taken In-Part from - Emergency Drinking Water Supplies prepared by: Dorothy L. Miner, Extension Water Quality Associate Specialist, North Carolina Cooperative Extension Service

