

DRINKING WATER QUALITY FAQs DURING EMERGENCIES

1. **How do I know if my water is safe during a storm, prolonged power outage, etc?** Monitor your TV, radio and computer for up to date information and advisories being broadcasted by the local County and State civil defense agencies. These agencies are disseminating information from police, fire, Department of Health (DOH), Department of Education (DOE), bus and transportation officials, utilities like HECO, Board of Water Supply, etc on a regular basis. The DOH can also contact the water supply agencies to pass on reports of storm related problems such as main breaks, discolored water, odors or loss in water pressure.
2. **How do I chlorinate my tap water to store during an emergency?** Add between 1-8 drops of new, unscented liquid bleach with a strength of 5-6% (like Clorox) to each gallon of water. Fill a clean container, add the chlorine and let the water stand for at least 30 minutes before using. One drop per gallon produces a chlorine residual of approximately 0.7 ppm (parts per million), which is strong enough for storage of normal tap water in a clean container for the short duration after an outage. If you feel that the quality of your water supply may be compromised (see next question), then add more drops of chlorine to maintain a slight chlorine odor 30 minutes after mixing. Water that cannot maintain a chlorine odor should not be used.
3. **What if my tap water or water source is cloudy, colored or has visible particulate matter in it?** Do not drink this water if there is an alternative, cleaner source. If this water must be used, let the water stand until the heavier solids settle out. Pour the water through a clean cloth filter into another clean container. Chemically disinfect by adding 1-8 drops of new, unscented liquid bleach with a strength of 5-6% (like Clorox) or boil the water for a minimum of 1 minute at roiling boil (up to 3 minutes) for safer use.
4. **Can I boil my water to make it drinkable too?** Yes, bring your water to a roiling boil for a minimum of 1 minute, cool down and store in a sterilized/disinfected container. Note that this primarily improves bacteriological water quality. The boiling may in fact concentrate minerals, salts and metals - which should not pose a public health threat for short term use.
5. **Can I store it in a container?** Yes, but use clean containers that have no food or chemical odors. Do not use containers used to store household or garden chemicals! If you do not know what was in the container previously, don't use it. 2-liter soda bottles have been cited as good for temporary storage of emergency water supplies. Wash the bottles with soap, and sterilize or chemically disinfect the container before use by adding 1 teaspoon of unscented liquid household bleach to 1 quart of water, mix so the water touches all surfaces, (see links below), rinse thoroughly, fill with clean drinking water and cap tightly. Store in a cool, dark place.
6. **How about a bath tub?** Do not use a bath tub as a source of drinking water. Bath tubs are difficult to seal off from contamination because of their size and shape, and have soap films on the surface that can harbor bacteria and therefore are nearly impossible to sterilize. A toilet is usually located in the same enclosed room which exposes the tub water to aerosols from every flush. Water stored in a bath tub be used as a source of water for sanitary purposes, e.g. toilet flushing water.

7. How do I call the County water supply to let them know of a water system break or problem?
(you may also be referred to their Customer Service line)
 - a. Kauai Department of Water: 245-5444
 - b. Honolulu Board of Water Supply: 748-5000
 - c. Maui Department of Water Supply: 270-7633
 - d. Hawaii Department of Water Supply: 961-8790

8. Can you send me an emergency link?
 - a. State Department of Health (storing/preparing water containers):
<http://www.ready.gov/water> and <http://www.ready.gov/managing-water>
 - b. US EPA:
http://water.epa.gov/aboutow/ogwdw/upload/2006_09_14_faq_fs_emergency-disinfection-drinkingwater-2006.pdf
 - c. Hawaii State Civil Defense: <http://www.scd.hawaii.gov/documents/FEMA477.pdf>
 - d. Oahu:
<http://www.boardofwatersupply.com/files/Emergency%20Preparedness%20Handout.pdf>
 - e. Maui: <http://co.maui.hi.us/FAQ.aspx?QID=95>

If someone wants to dilute to their own concentration of chlorine, they can use the following conversions:

1 gallon = 128 fluid oz

1 fluid oz = approx. 600 drops

5.25% unscented Chlorox = 52,500 ppm chlorine (may be significantly less if old bottle stored in heat or sunlight)

Therefore, ***chlorine concentration in ppm = number of drops x 0.7***. Note that this concentration may be significantly less if the Chlorox was old or was improperly stored.