NEW MEXICO DEPARTMENT OF HEALTH

New Mexico Environment Department

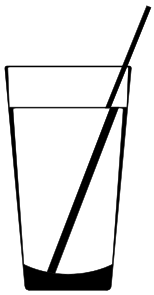
What do I do if my water runs out?

If you are on a public water system, the system operators should have a plan for securing an emergency water supply. Community water consumers are encouraged to participate in the decision-making process for their community's drought emergency preparedness. Contact your local government offices to find the drought emergency preparedness plan for your community.

> If your well runs dry:
> - ✓ Find an emergency drinking water source
> - ✓ Drill a new well if necessary
> - ✓ Disinfect water from questionable sources by boiling or chemical treatment
> - ✓ Use rainwater or "greywater" for nonfood plant irrigation only

If you have a private well, you will need to seek an alternate source of water. You may obtain a list of water haulers at www.nmenv.state.nm.us/dwb/dwbtop.html or call 1-877-654-8720 (toll free) and ask for the Drinking Water Bureau. You may want to identify a suitable water hauler before an emergency occurs, to get pricing, contracting information, and lead time required. You can confirm that any water hauler you select is in compliance with New Mexico's *Drinking Water Regulations* by asking them if they are certified by the New Mexico Environment Department as a "water system". Containers you use to haul or store water should be disinfected by rinsing with bleach water. You may want to consider drilling a new well or deepening your existing well to avoid future water problems. Contact a local, reputable drilling contractor who is familiar with local ground water conditions.

Alternatives such as rainwater and "greywater" (water previously used for other purposes, such as washing clothes) are not recommended for drinking, although they may be excellent water sources for irrigating non-food producing plants. Once rain contacts a collection surface like a roof, it can wash many types of contaminants off that surface and into the storage container, including bird feces and feathers, dead insects and leaves. More information is available through www.greywater.com or the State of Texas at: http://www.tnrcc.state.tx.us/exec/sbea/rainwater/treatment.html or (512) 239-1000.



How do I know if my water is safe to drink?

The Environmental Protection Agency (EPA) recommends that private well owners have their water tested each year for microbial and nitrate contamination. Observe any changes in your water, such as taste, cloudiness, or smell; any of these can indicate that you may have a contamination problem in your well, however, you may have a contaminated water source with no obvious indications. The New Mexico Environment Department (NMED) can provide a list of certified testing laboratories (http://www.nmenv.state.nm.us/dwb/Certified_labs.html or 1-877-654-8720).

How can I make sure I don't get sick in low-water situations?

Microbial contamination of drinking water can cause illness. The organisms that cause waterborne illness (bacteria, viruses, and parasites) are also spread by food or from person to person, so it is often difficult to determine the cause of illness. Symptoms may include nausea or vomiting, abdominal cramping, diarrhea, muscle ache, or fever. With diarrhea of any cause, the most important treatment is to increase fluid intake to prevent dehydration. Please contact your health care provider if you become ill. The Department of Health, Office of Epidemiology can answer questions about common waterborne diseases during normal business hours at 505-476-3572. For after-hours emergencies call 505-827-0006. The best way to keep from becoming sick is to drink only disinfected water and maintain hygiene standards. For more information on waterborne diseases see: http://www.cdc.gov/ncidod/diseases/water/drinking.htm.

> - ✓ Arrange for a safe drinking water source. For private well owners, that may mean drilling a deeper well. For those on a public water system, be sure that your system operator has a back-up or emergency water source before a crisis occurs.

How do I disinfect my water?

If you suspect your emergency or regular water source is contaminated, there are a number of ways to disinfect it. Avoid source water with bad odor, dark color, or with floating materials. If only cloudy water is available, allow it to settle and draw off the clear water for disinfection. Disinfected water should be stored in clean, tightly covered containers which are not subject to corrosion. ***Remember, only disinfected water should be used for any kind of ingestion, including drinking, making ice cubes, preparing food or baby food, or brushing teeth.*** For additional information: http://www.epa.gov/safewater/faq/emerg.html or 1-800-426-4791 (U.S. Environmental Protection Agency Safe Drinking Water Hotline).

- ***Boiling*** Vigorous boiling for 5 minutes will kill any disease-causing microorganisms present in water. Water known to contain nitrates should not be boiled; this will concentrate the nitrates, making the water unsuitable for children. The flat taste of boiled water can be improved by pouring it back and forth between 2 clean containers or by adding a small pinch of salt to each quart boiled.
- ***Chemical Treatment:*** When boiling water is not possible, chemical disinfection can be used. Household bleach contains chlorine, which is effective against bacteria and viruses, but less effective in protecting against exposure to parasites found in rivers or lakes.

Therefore, if only chemical treatment is available, well water is the best source for effective disinfection because it does not normally contain parasites. Bleach contains different concentrations of the active ingredient, so be sure to read the label before using. If the label does not provide directions for water disinfection use the bleach disinfection guidelines in the box to the right of this text. Bleach disinfection works better with warm water.

- ***Point of Use Water Treatment Units:*** There are over 500 different brands of water treatment units that you can purchase for private use. Check with the National Sanitation Foundation (http://www.nsf.org/consumer/consumer_dwtuproducts.html or 1-800-673-6275) for an appropriate treatment type for your purposes.

Bleach Disinfection Guidelines

There are different concentrations of household bleach available; you will need to use different amounts of bleach for disinfection based on the concentration of bleach (check the label for concentration information).

- ✓ 1% bleach: use 10 drops /quart of water
- ✓ 4 – 6%: use 2 drops of bleach / quart
- ✓ 7 – 10%: use 1 drop for each quart
- ✓ Unknown bleach concentration, add 10 drops bleach per quart of water, doubling the amount of bleach for cloudy water.
- ✓ Mix water and bleach thoroughly; allow to stand for 30 minutes.
- ✓ Disinfected water will have a slight chlorine bleach odor. If no odor is detected, repeat the process and allow the water to stand for an additional 15 minutes.

Maintaining proper hygiene helps prevent disease.

- *Handwashing:* Handwashing is one of the most effective ways to prevent disease spread. The proper way to wash your hands is to wet them first, apply soap, then rub and scrub them vigorously for 10-15 seconds. Rinse and dry. If insufficient water is available, alcohol-based hand sanitizers may temporarily be used instead of soap and water. Handwashing is recommended before and after handling food and after using the toilet or changing diapers.

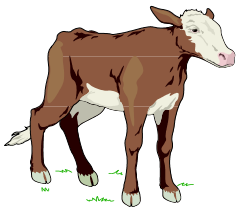
- *Flushing toilets:* If insufficient water is available for flushing toilets, residents are strongly encouraged to seek chemical toilets for temporary use until a new well can be drilled or other arrangements can be made for a reliable water source.
- *Bathing:* Bathing in surface waters such as rivers, streams, or reservoirs is not recommended. Sponge-bathing with soap and water in a basin may provide a temporary solution. Alternative bathing arrangements (for example at a friend/relative's house, or at a community center) might be made until a permanent water source becomes available.
- *Dishwashing:* If using untreated water for washing dishes, use the hottest water available with detergent. After rinsing, soak the dishes for 5 minutes in water with bleach added as a final rinse.

Mental Health & Physical Stress

Drought can cause significant mental health impacts on residents, especially in rural communities that depend upon farming and ranching as a basis of economic support. Risk of stress, depression, suicide, and substance abuse may increase during a drought. Look in the Yellow Pages of the telephone book under "Mental Health Services", or speak to your health care provider for mental health referrals. Check the web site http://www.region5rcc.org "Summer in the City" section for more information and health tips.

Domestic Animals and Drought

All animals can overheat in hot weather, especially if they lack adequate water. When streams dry up, wells go dry or ponds shrink, animals can suffer dehydration. Animals at special risk are working, very young, and very old animals. All animals, including pets, may also get sick from the organisms that cause human illness, and should be given disinfected water for drinking.



- ***Symptoms and Signs of Dehydration:*** Watch for rapid, shallow breathing, reluctance to move, weight loss, and drying of mucous membranes and eyes. Decreased skin flexibility in animals may be a sign of dehydration. Pull the skin and hold a moment, release and observe how long it takes for the fold to disappear. The skin should return to normal position immediately, if there is any delay, the animal could be dehydrated.
- ***Concentration and Contamination:*** Both the taste and safety of natural water sources can be affected by drought. As watering holes and ponds dry up, naturally occurring salts can become more concentrated and can be harmful to health. Some substances may not be tasted but can be toxic when concentrated. Additional information is available from your local county extension agent (see government pages under your county in the phone book) or the NM Cooperative Extension Service (505) 646-3015 (website: http://www.cahe.nmsu.edu/ces/).

- ✓ For information on **water systems, emergency water resources, or water testing**, please contact the New Mexico Environment Department, Drinking Water Bureau toll free at: **1-877-654-8720.**
- ✓ For information on **water-related health concerns**, please contact the New Mexico Department of Health, Office of Epidemiology, at **(505) 827-0006**.
- ✓ For information about **water conservation** please contact the New Mexico State Engineer's Office at **1-800-WATER-NM (1-800-928-3766) or email: waternm@ose.state.nm.us**.