Drinking Water in an Emergency

Lamorinda Community

Emergency Response Team (CERT)

July 13, 2026

Storing Water

Treating Water

Getting More Water

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Water may not be available during emergencies

Recent CA examples

- Broken valve 20 feet underground in Los Angeles in August 2025
  - 9,200 people were out of water and/or under boil water order for about a week
- Major wildfire in Los Angeles in January 2025
  - Thousands of people were out of water and/or under a do-no-use order for about a month



A broken water valve has left some 9,200 Granada Hills and Porter Ranch residents without water since Aug. 5, 2025. (KTLA)



A helicopter drops water on the Kenneth Fire in the West Hills section of Los Angeles, last Thursday. High winds grounded planes and helicopters during the first 24 hours of the fire.

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Water may not be available during emergencies

EBMUD has many redundant components and facilities, multiple water treatment plants, and we have multiple ways to get water around most of the distribution system

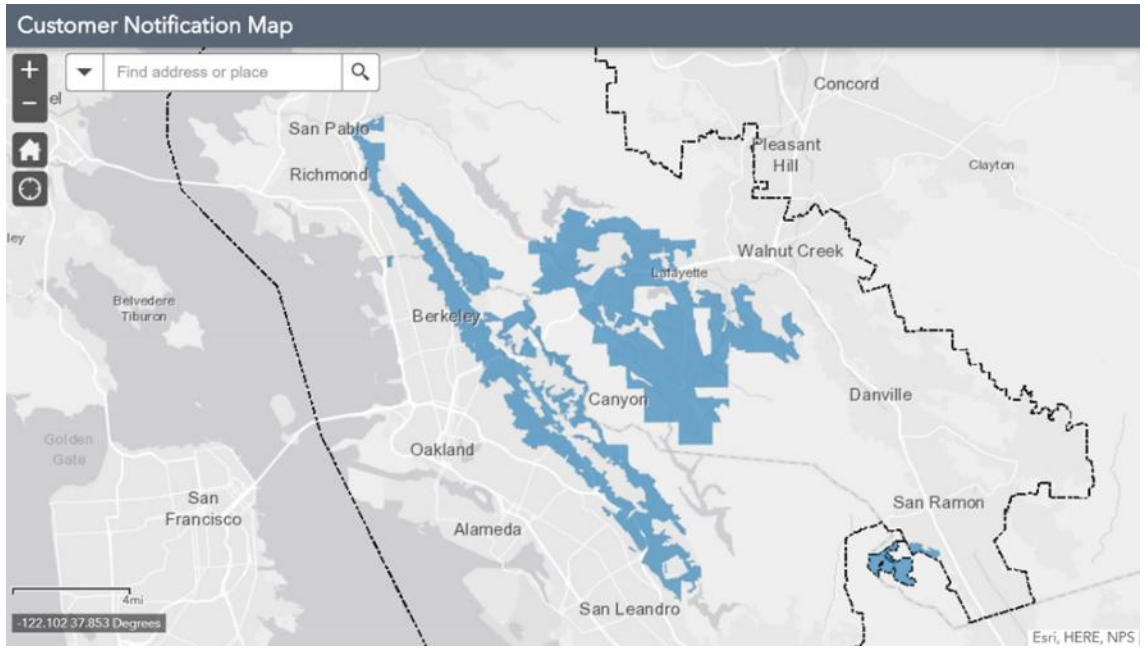
We have many excellent employees who will be responding to emergency events

However, we may not be able to serve water everywhere in a major event, and the water may not be potable during a crisis

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Water may not be available during emergencies

- A large earthquake likely will cause thousands of pipe breaks
- EBMUD fixes about one thousand breaks each year, but thousands in one day will overwhelm our crews
- We have mutual aid agreements with other water agencies -- help will arrive -- and we will get the system restored as soon as possible



EXAMPLE status map

- The system will be restored piece by piece, area by area, and we will keep our maps updated regarding the status
- EBMUD.com/alerts

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Water Storage

- Store water before the big emergency happens
- Important for first few days or weeks after a disaster
- Use your stored water when there is no water coming out of the faucet
- Fill your containers with potable water now, then keep it potable
- How much?
  - EBMUD recommends: 2 gallons per person per day for a week (don't forget your pets!)
  - FEMA: 1 gallon per person per day for several days
  - CDC: at least 1 gallon per person per day, store enough for 3 days
  - Store more if you can for friends and neighbors



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Water Storage

- Consider location
  - Near water source like a faucet
  - Near a place to dispose of water when needed
- Use food-grade materials that are intended for long-term storage

- Water is Heavy
  - 1 gallon weighs more than 8 pounds
  - 55 gallon drum weighs more than 450 pounds
  - Pumping or flowing by gravity is easier than physically moving container full of water

- EBMUD water is disinfected, it's not sterile
  - Unless it's factory sealed, change out water regularly (twice per year)
  - Should be opaque so algae don't grow in it
  - Water plants with discarded water

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Water Storage



30 gallon drum (250 pounds)



5 gallon carboys (40 pounds)



12 ounce cans



3.5 gallon stackable bricks (30 pounds)

Avoid single-use plastic bottles, they are not designed for long-term storage

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Water Storage



Hand pump



Spigot



Syphon pump

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Water treatment

- When water is available, but it is not be safe to drink
- Pay attention to public notifications
  - Sign up for EBMUD alerts
  - Sign up for county alerts
- Purpose: disinfection (kill microbial pathogens)
- Don’t attempt to treat water that’s been chemically contaminated
- Remember to discard ice from ice maker and flush out refrigerator water lines

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Water Disinfection

- Boiling works for pathogens (*Giardia and cryptosporidium*, bacteria, and viruses)
  - You can use a camp stove during emergencies (not inside!)
  - Bring water to a full boil, let it cool
  - Store it in a clean container
- Boiling does not work for chemical contamination



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Water Disinfection

- Iodine
  - Effective for viruses, bacteria, *giardia*
  - Does not work for *cryptosporidium*
  - About 30 minute contact time needed
  - Tablets are stable for years
  - Inexpensive



Iodine tablets

- Chlorine
  - Effective for viruses and bacteria
  - Does not work for *cryptosporidium*
  - Use plain bleach, main ingredient should be sodium hypochlorite
  - No scents, stabilizers, stain removers, or “non-chlorine” bleach
  - ½ teaspoon in 5 gallons
  - Inexpensive



Chlorine bleach

- Ultra violet light
  - Effective for *giardia and cryptosporidium*, but not necessarily viruses
  - Needs batteries, more expensive



- Chlorine dioxide
  - Effective for viruses, bacteria, *giardia and cryptosporidium*
  - Longer contact time needed (about 4 hours)



Chlorine dioxide

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Water Filtration

- Commercially available units for backpacking or emergency uses
- Filters out pathogens













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Getting More Water

- NGOs like the Red Cross typically respond in major disasters
- This may take a while, so use your stored water in the interim
- Distribution locations will be set up at locations available at the time



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Getting More Water

- Your home's hot water heater may be a good source of water
  - Should be strapped or anchored to the walls and connected with flexible lines
  - If it's old and corroded, water may need to be filtered before drinking
- Swimming pool water could be used for hygiene (e.g., toilet flushing, washing)
- Melted ice
- Rainwater storage systems







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Getting More Water

- EBMUD will try to set up water distribution points throughout in the service area
- Bring your empty containers and fill them
- Good to have suitable containers available, collapsible ones are easy to store







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Getting More Water

- Sites will be where there's water in the pipes, or connected to a water tanker
- May take a week or so to set up
- Pre-determined locations (e.g., schools, community centers with large parking areas)
- Co-locate with distribution of other commodities (diapers, food, formula, etc.)
- May or may not be potable (signs will indicate which)
- We have 100 of these spread out throughout the service area



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Parting Thoughts

- It’s a lot, you don’t have to do this all at once
- Get one thing at a time and practice with it
  - Think about where you might store water
  - Get a small bottle of water treatment tablets and try them out
  - See if you’d prefer a squeeze filter or UV light system
- Consider storing more water if you can to help out your neighbors, friends and family

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Thank you for being prepared!



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