

Wildfires and Water Quality Concerns

Is drinking water safe to drink after a wildfire?

Wildfires can impact drinking water quality because of changes in plant cover, soil properties, and erosion that can impact ground and surface water. Water quality concerns may include changes to the color, taste and odor, or clarity of the water. Water quality concerns are likely to increase when burned areas receive heavy rainfall.

What are drinking water sources?

Private Ground Water

If located within an area burned by wildfire, well owners should follow the advice in the MDH document:

- [Wildfire Can Damage Private Water Wells \(PDF\)](https://www.health.state.mn.us/communities/environment/water/docs/wells/wildfires.pdf)
(<https://www.health.state.mn.us/communities/environment/water/docs/wells/wildfires.pdf>).

Surface Water

After a fire, vegetation and forest litter that once slowed water runoff are gone, increasing the amount of sediment and ash ending up in lakes and streams. As a result, surface water treatment systems can be overcome by the poor quality of the surface water source and must be monitored carefully to ensure that the filters do not become plugged and that the disinfection processes are effective.

- [Using Surface Water Sources for Drinking Water \(PDF\)](https://www.health.state.mn.us/communities/environment/water/docs/ncom/surfwater_source.pdf)
(https://www.health.state.mn.us/communities/environment/water/docs/ncom/surfwater_source.pdf)

Public Water Supply

When wildfire burns through an area that contains a public drinking water system, MDH staff will perform an inspection and collect drinking water samples of the system before it resumes operation.

- [Drinking Water Protection](https://www.health.state.mn.us/communities/environment/water/dwp.html)
(<https://www.health.state.mn.us/communities/environment/water/dwp.html>)
- [Drinking Water Protection Contacts](https://www.health.state.mn.us/communities/environment/water/org)
(<https://www.health.state.mn.us/communities/environment/water/org>)

What are the steps that should be taken to check the water system?

1. Check for damage at all water service components including electrical systems, tanks, pipes and water treatment equipment. If damaged, you should contact an MDH-licensed well contractor and/or plumber to assess damage and make repairs.

WILDFIRES AND WATER QUALITY CONCERNS

2. Flush all water lines, especially if the water tastes or smells earthy, smoky, or burnt. If the water system lost pressure the water should be tested.
3. It is recommended to test for the presence of bacteria before water is used for drinking or cooking.
4. If using water before testing and disinfection, it is recommended to boil the water used for drinking and cooking for at least one minute at a full rolling boil.
5. Disinfect the well and water system.
 - [Well Testing, Results, and Options \(PDF\)](https://www.web.health.state.mn.us/communities/environment/water/docs/wells/waterquality/tipseng.pdf)
(<https://www.web.health.state.mn.us/communities/environment/water/docs/wells/waterquality/tipseng.pdf>)
 - [Well Disinfection](http://www.health.state.mn.us/communities/environment/water/wells/waterquality/disinfection.html)
(<http://www.health.state.mn.us/communities/environment/water/wells/waterquality/disinfection.html>)

Additional Resources

- [CDC - Wildfires and Your Safety](https://www.cdc.gov/wildfires/about/?CDC_AAref_Val=https://www.cdc.gov/disasters/wildfires/index.html)
(https://www.cdc.gov/wildfires/about/?CDC_AAref_Val=https://www.cdc.gov/disasters/wildfires/index.html)
- [EPA - Wildfires](https://www.epa.gov/natural-disasters/wildfires) (<https://www.epa.gov/natural-disasters/wildfires>)
- [MDH - Natural Disasters and Private Water Wells](https://www.health.state.mn.us/communities/environment/water/wells/natural/index.html)
(<https://www.health.state.mn.us/communities/environment/water/wells/natural/index.html>)
- [Minnesota DNR - Wildfire Prevention](https://www.dnr.state.mn.us/wildfire/prevention/index.html)
(<https://www.dnr.state.mn.us/wildfire/prevention/index.html>)

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To obtain this information in a different format, call: 651-201-4700