

wellcare[®] information for you about

WELLS & FIRE PROTECTION

Well owners must take steps to ensure an adequate supply of water in the terrible event of a fire in their home.

Minimum Flows for Fire Protection

Insurers demand very high water capacity for fire protection when they set their rating standards. For a high rating, Insurance Services Office, Inc. (ISO) requires fire flow to be no less than 250 gallons per minute for two hours (30,000 gallons) and that the home be no more than five miles by road from a recognized fire station.

Most household wells can't produce anywhere near that amount of water. Worse, adding a cistern or storage tank to hold 30,000 gallons of water could cost \$60,000! Luckily, well owners can choose from several options to prepare for a fire.

Residential Sprinkler Systems

The National Institutes of Health (NIH) reports that about 90 percent of fires can be contained by just one sprinkler in a residential system. An increasing number of communities in a dozen states require residential sprinklers in all new homes.

In Scottsdale, AZ, sprinklers were required in new homes in 1986 and can now be found in more than 50 percent of all houses. A 15-year study has found that fires in Scottsdale homes without sprinklers did approximately 21 times the damage, \$45,019 average per fire, compared to homes with sprinklers, \$2,166 average, according to the Home Fire Sprinkler Coalition.

Costs for home sprinklers have fallen dramatically, adding just one to two percent to the price of a new home, or a national average of \$1.35 per fire sprinkler square foot of new construction. In turn, residential sprinkler systems can qualify for a discount ranging from 10 to 50 percent in fire insurance premiums, according to NIH.

Innovations in plastic piping make residential systems easier to install, both in new homes and in the retrofit of an older home. The demand on your well is no greater than a lawn sprinkler network. Some systems can even be designed to cut off all other water use in the house when the system is activated, to focus the water supply on fire protection.

There is no reason to fear your entire home will be flooded, as the sprinkler will go off only in the room where fire is detected. The sprinkler water plug releases at a very high temperature.

A study in Scottsdale showed that fire sprinklers demand much less water than fire hoses and so do less damage, according to the Home Fire Sprinkler Coalition. The study indicated a sprinkler uses on average 341 gallons of water to control a fire, while firefighters using hoses consume 2,935 gallons.

If your well pressure or capacity is very low, some residential sprinkler manufacturers offer sell-contained water tanks to supply their systems. The tanks can fit in the garage or another storage area.

Contact the [Home Fire Sprinkler Coalition](#) for a link to an online contractor referral service or look in the [Yellow Pages](#) and search for “Fire Sprinkler System” in your area.

Dry Hydrants: An Alternative Water Source

Another option is to find an alternative water source to fight fire. Farm ponds, lakes or even a river can provide water through the use of a dry hydrant.

Dry hydrants offer several benefits to the homeowner. They reduce the time needed to fill fire department tanker trucks fighting the fire. They conserve drinking water. They also can lower insurance premiums.

A dry hydrant is a six-inch diameter pipe connected to a pipe in the pond to allow the water to be pumped into a fire truck. On average, the cost of installation ranges from \$2,000 to \$4,000, but it can potentially be less if it is done when the pond is constructed. ISO reports that any property within 1,000 feet of a dry hydrant may qualify for lower insurance premiums, provided the home is also within five miles of a fire station.

Many states recommend locating dry hydrants every three miles in rural communities and offer cost share grants to local fire departments to fund installation of the devices. Location of the water source is important, as the tanker truck must be able to access the site and turn around.

Ask your local fire department if a dry hydrant would work on your property or if there is another appropriate site nearby. The local fire department also should be able to recommend installers.

Homeowner Fire Protection Steps

The U.S. Fire Administration offers the following tips for making your property more fire resistant:

- Store flammable materials, liquids or solvents in metal containers outside the home at least 30 feet away from structures and wooden fences.
- Keep lawns trimmed, leaves raked and the roof and gutters free from debris.
- Stack firewood at least 30 feet away from the home.
- Create a low impact fire zone around the house by thinning trees and brush within 30 feet.
- Post home address signs that are clearly visible to fire station staff from the road.
- Ask your local fire department or county government for a home fire safety inspection.

For More Information on Wells & Fire Protection

Contact your licensed well contractor, local health department, state environmental agency, or the wellcare® Hotline.

Additional resources:

ISO (Insurance Services Office, Inc.) <https://www.isomitigation.com/ppc/technical/needed-fire-flow/>

Home Fire Sprinkler Coalition <https://homefiresprinkler.org/scottsdale-report/>

National Institute of Health (NIH) <https://ors.od.nih.gov/News/Pages/Benefits-of-Residential-Sprinkler-Systems.aspx>

<https://firesafetysupport.com/how-much-does-a-fire-hydrant-cost/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4286513/>



Information to help maintain and protect your water well system:

wellcare® is a program of the Water Systems Council (WSC). WSC is the only national organization solely focused on protecting the health and water supply of an estimated 23 million households nationwide who depend on private wells (according to the U.S. EPA).

This publication is one of more than 100 wellcare® information sheets available FREE at www.watersystemscouncil.org.

Well owners and others with questions about wells and well water can contact the wellcare® Hotline at 1-888-395-1033 or visit www.wellcarehotline.org to fill out a contact form or chat with us live!

JOIN THE WELLCARE® WELL OWNERS NETWORK!

By joining the FREE wellcare® Well Owners Network, you will receive regular information on how to maintain your well and protect your well water.

Contact us at 1-888-395-1033 or visit www.wellcarehotline.org to join!