Emergency Water Supply - Four Mile Fire Protection District

The adopted fire code (2024 edition of the International Fire Code) requires every structure to have adequate emergency water supply based on fire flow duration and the size of the home or structures to be protected. Because there are no fire hydrants in most of FMFPD, this code requirement can be met by installing a local cistern or making a contribution to the Community Cistern Fund.

If the property in question has a very long driveway or is in a remote location, cistern installation at the structure may be required by the Fire Marshal. Where this is not the case, the decision may be made at the developer's discretion. Each option has its own pros and cons. If you choose to install a cistern, it cannot be used for livestock, agricultural, domestic storage or other uses.

Here are the cistern size and/or Community Cistern Fund contribution requirements:

Home Size	Community Cistern Contribution	Cistern Size
Min-1,600 sq.ft.	**$10,000.00**	**3500 gallons**
1,601- 3,600 sq.ft.	**$15,000.00**	**7000 gallons**
3,601-max	**$20,000.00**	**10000 gallons**

**Total house size should include covered decks, garages, and any accessory structures within 50' of the primary dwelling*

Some thoughts to consider:

1) Do you have physical room to place the cistern approximately 50-75 feet from your house and garage? Too close and the Fire Department cannot use it if the house is on fire, and too far and our initial attack lines will not reach all of the house. Our pre-connected hose lines are 200' and optimally need to reach the rear, basement, or top floor of the house without adding additional hose. The access requirements state the distance from the fire engine to the far side of the structure shall be 150' or less. Cistern placement is vital to a successful initial fire attack.



Local cistern shall have approved fittings for connection. FMFPD uses 6" NH Male with a strainer and cap. Most cistern suppliers are familiar with these requirements and where to obtain the fittings. The cistern will also need an appropriately sized vent and fill, ensure the vent is covered with wire mesh or a similar protective covering.

2) Is there adequate space for an all-weather turnaround or pullout adjacent to the cistern?

3) Generally, the cost to install a 7,000-gallon cistern is roughly equal to the $15,000 donation to the community cistern fund. If blasting or complex excavation is required to get adequate burial depth (at least 4 feet of dirt on top of the tank), the cost to install a local cistern may be significantly higher.

4) The Fire District will prioritize which locations will receive community cisterns. It is likely that the money you contribute towards the cistern fund will not result in a community cistern directly in the area you are building. The placement is based on existing infrastructure, WUI impact, access, and risk, amongst other considerations.

Click here for the Boulder County Emergency Water Supply for Firefighting requirements.

Any questions regarding emergency water supply can be directed to chief@fourmilefire.org.

Driveways Specifications – Four Mile Fire Protection District

Construction of new driveways off of platted county roads will be subject to the requirements of FMFPD.

Residential Sprinkler Systems – Four Mile Fire Protection District

Boulder County requires new homes to be equipped with a sprinkler system. This aspect of the build will have little involvement from Four Mile Fire. Developers will work with an accredited sprinkler inspector to sign off on their system during the build process. FMFPD will require the following from a sprinkler system.

- Attached garages must be sprinklered
- An FDC should be installed under the strobe near the entrance to the home
- A backup power source must be installed to automatically activate and power the sprinkler pump in the event of loss of primary (grid) power.
- Required sprinkler run time is 10 minutes.

Inquiries about commercial building can be directed to chief@fourmilefire.org

When will FMFPD be involved in your project?

- SPR – FMFPD is notified by Boulder County during the SPR process. Driveway plans are reviewed during this stage
- Cistern decision – will there be a community cistern fund contribution, or will the site accommodate an appropriately sized cistern? If a cistern is installed, this will need to be inspected and approved before a rough inspection can be scheduled. FMFPD will provide additional guidance on cistern design and placement. W07 Fire Cistern Approval Form
- Sprinkler inspections will be performed by a certified inspector, not FMFPD. B27 Fire Sprinkler Approval Form

Additional Resources

Residential Plan Checklist - B24 - Boulder County

Wildfire Mitigation Code Requirements - Boulder County

Building Publications, Applications and Forms - Boulder County