



**San Diego County Fire Protection District  
WATER TANK STANDARDS  
FOR FIRE PROTECTION**

**MINIMUM WATER STORAGE TO PROVIDE PROTECTION FOR DWELLINGS AND OTHER STRUCTURES, WHERE ADEQUATE PUBLIC/PRIVATE WATER SUPPLY IS NOT AVAILABLE**

NOTE: In areas where water can be supplied by pumps from a domestic source, such systems must be reviewed by the Fire Authority Having Jurisdiction (FAHJ).

| TABLE NO. 903.3.2   |                               |                                |                  |
|---|-------------------------------|--------------------------------|------------------|
| Building Square Feet  | Gallons Per Minute Water Flow | Capacity Gallons               | Duration Minutes |
| Up to 1,500   | 250                           | 5,000                          | 20               |
| Over 1,500  | 250                           | 10,000                         | 40               |
| When exposure distance is one hundred feet (100') or less from adjacent property, the following minimum fire flow shall be adhered to. Increases in water storage may be required by the Chief, depending on the square footage of the exposed structure. When protecting exposures within 100 feet or less, the minimum flow duration shall not be less than two (2) hours unless otherwise approved by the Chief. |                               |                                |                  |
| EXPOSURE DISTANCE   |                               | MINIMUM FIRE FLOW              |                  |
| Over 100 Ft.  |                               | 250 Gallons Per Minute         |                  |
| 31 Ft. – 100 Ft.  |                               | 500 – 750 Gallons Per Minute   |                  |
| 11 Ft. – 30 Ft.   |                               | 750 – 1000 Gallons Per Minute  |                  |
| 10 Ft. or less  |                               | 1000 – 1500 Gallons Per Minute |                  |

If buildings are contiguous, a minimum of 2,500 gallons per minute shall be required.

**Water Tank Location:**

1. Tank bottom elevation shall be equal to or higher than the fire department connection and building pad. Regardless of domestic use, all tanks shall be equipped with a device that will ensure that the tank contains the designated amount of water for fire flow duration as determination by the fire department. Tank size may be increased to serve multiple structures on a single parcel.
2. If installing multiple tanks they must be inter-connected.
3. Supply outlet shall be at least 4 inches in diameter from the base of the tank to the point of outlet at the fire department connection. The fire department connection shall be at least one 4-inch National Standard Thread (male), reduce to one 2½ inch National Standard Thread (male). Additional outlets may be required.
4. Location of the fire department outlet to be determined on the plot plan when submitted to the fire department. Consideration will be given to topography, elevations, and distance from structures, driveway access, prevailing winds, etc. The outlet shall be located along an access roadway and shall not be closer than 50 feet nor further than 150 feet from the structure.
5. All exposed tank supply pipes shall be of an alloy or other material listed for above ground use. Adequate support shall be provided.
6. Tank materials shall be in accordance with NFPA 22 Standard; galvanized steel or fiberglass-reinforced plastic.
7. Vessels previously used for products other than water shall not be permitted.
8. The Plot Plan shall include the following information: tank size (in gallon capacity), material, location **and** elevation – and – FDC location **and** elevation.

# Fire Protection Water Tank Installation Standards

Water Tanks Must Meet Setbacks Required in the County Zoning Ordinance

