



San Diego County Fire Protection District **COMMERCIAL WATER TANK STANDARDS FOR FIRE PROTECTION PUBLIC INFORMATION SHEET**

Scope of Work: Fire Protection Water Storage Tank Requirement and Review

1. Project Overview

Commercial buildings located in areas without adequate municipal fire flow are required to provide an onsite fire protection water storage tank. This tank, along with its calculated volume, must be included in the Fire Protection Engineer (FPE) review and submitted as part of the underground deferred submittal package. The San Diego County Fire Protection District (SDCFPD) will verify that the proposed tank volume satisfies the required fire flow.

2. Applicable Codes and Standards

All work shall comply with the 2026 San Diego County Consolidated Fire Code and the applicable NFPA standards referenced therein, including:

NFPA 22: Standard for Water Tanks for Private Fire Protection

NFPA 24: Standard for the Installation of Private Fire Service Mains

NFPA 13: Standard for the Installation of Sprinkler Systems

County Zoning and Setback Regulations

Compliance with FAHJ (Fire Authority Having Jurisdiction) requirements is mandatory.

3. Requirements for Water Tanks

The fire protection water tank shall be designed and installed as follows:

A water district letter must be provided verifying insufficient fire flow if a waterline were extended and hydrants installed. Water tanks are only permitted under this condition.

The bottom elevation of the tank must be equal to or higher than the fire department outlet and must be level with or above the building pad.

The tank shall include a device ensuring the designated fire flow volume remains available for the full required duration.

Tanks may be oversized to serve multiple structures on the same parcel.

All tank materials must comply with NFPA 22 requirements. Tanks previously used for other products are prohibited.

Supply outlet pipe shall be a minimum of 6 inches in diameter, from tank base to hydrant/drafting hydrant connection. All exposed piping shall be listed for above ground use and adequately supported.

Underground piping serving the FDC shall comply with NFPA 24.

4. Hydrant and Fire Department Connection Requirements

Fire hydrants provide firefighters access to pressurized water.

Drafting hydrants shall be installed where water supply is non pressurized and used for water drafting operations.

The FDC provides the fire department a connection to supplement the building's water-based fire protection systems.

Hydrant or drafting hydrant location must be shown on the plot plan.

The outlet shall be located on an approved fire apparatus access road, no closer than 50 feet and no farther than 150 feet from the structure unless otherwise approved by the FAHJ.

Topography, access, elevation, prevailing winds, and building distance shall be considered.

5. Plot Plan Requirements

The submitted plot plan must include:

Tank size (gallons)

Tank material

Tank location and elevation

Hydrant or drafting hydrant location and elevation

Fire department connection (FDC) location

All plan documents must be submitted to and approved by the FAHJ before tank installation.

6. Submittal Requirements

Include the tank calculations prepared by a licensed California Fire Protection Engineer (FPE) in the underground deferred submittal package.

Include the water district letter verifying lack of adequate fire flow.

Follow the Deferred submittal guidelines for underground submittals.

Plans must meet all County Zoning setback requirements.

