

	<p>NORTH CENTRAL FIRE PROTECTION DISTRICT</p> <p>POLICIES</p> <p>408.004 FIRE FLOW POLICY FOR URBAN AREAS</p> <p>EFFECTIVE: JANUARY 2016</p>
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SCOPE

This policy establishes the minimum fire flow requirements for an available water supply for the purposes of firefighting and for fire sprinkler system water supply in the urban areas of the North Central Fire Protection District (NCFPD or District), which have a water purveyor who can provide a fire protection water supply, or to any proposed development in rural areas, that are not included within criteria of the Fire Flow Policy for Rural Areas.

This policy was adopted by reference by the NCFPD Board of Directors via Resolution 10-03 – Exhibit A, dated March 25, 2010.

PURPOSE

The purpose of this policy is to clarify the District’s requirements on both the quantity and method of delivery of fire protection water supplies.

DEFINITIONS

Urban

Development: Development that occurs inside the limits of the City of Kerman, the City of Fresno, or the community of Biola, and where a water purveyor can provide a domestic and fire protection water main infrastructure.

Fire Flow:

A water supply available for firefighting and/or fire sprinkler systems. A water supply available for the purpose of firefighting and fire sprinkler systems. Fire flow from a water purveyor is measured at a minimum available residual pressure of 20 psi residual to prevent damage to the water main infrastructure and possible back siphoning of domestic services. Fire flow is calculated by using the methods in Fire Flow Tests, published by the Insurance Services Office.

Water

Purveyor: A public utility, a mutual water company, a governmental body,

or other entity owning or operating a water system regulated by a State or County government agency.

LAFCO
Sphere of
Influence:

An urban growth limit boundary for cities and designated communities established by the Local Agency Formation Commission (LAFCO) of Fresno County.

Residential
Development:

For the purposes of this policy, residential development shall mean single-family and duplex housing of any size, and multi-family housing up to 3,600 square feet in area.

Commercial
Development:

For purposes of this standard, commercial development includes multi-family housing over 3,600 square feet in area, and all other retail, service, industrial, or institutional development.

CFC Appendix B: *California Fire Code* (CFC) fire flow requirements for buildings.

NCFPD Fire
Sprinkler
Ordinance:

Amendments to the CFC requiring fire sprinklers at a more restrictive threshold than the California Building Code (CBC). Within the service area of a water purveyor, fire sprinklers are required for buildings over 5,000 square feet.

BACKGROUND

As noted in the CFC, the authority having jurisdiction (AHJ) is permitted to develop policies pursuant to Section 104.1.

The NCFPD primarily covers a rural land use pattern, however, there are areas with a domestic water main and fire hydrant infrastructure provided by a water purveyor including the City of Kerman, the community of Biola, and portions of unincorporated areas within the City of Fresno, and the City of Fresno's LAFCO sphere of influence.

REQUIREMENTS

Based upon the need for uniformity in application across the District's diverse service delivery area, and after careful deliberation of the applicable codes and standards, the District has determined the following:

General Requirements:

Public and private hydrants shall be installed in accordance with the applicable standards of the City of Fresno Water Division, Kerman City Public Works, or the Biola Community Water District. For reference, see City of Fresno Public Works, Standard W-3.

Where fire hydrants are to be installed by the developer, they shall be installed and made serviceable prior to delivery of lumber to the project site and maintained in service during the time of construction. Such fire hydrants shall be tested and approved by the District.

Residential Development Requirements:

The minimum required fire flow shall be 1,500 gallons per minute. The minimum water pipe size shall be 6 inches.

Fire hydrants shall be spaced no further than 600 feet apart and the travel distance to a fire hydrant over a paved access roadway shall not exceed 300 feet.

All required fire flows, plus domestic demand, shall be available within the water system at a minimum of 20 pounds per square inch residual pressure.

Commercial Development Requirements:

The minimum required fire flow shall be 1,500 gallons per minute. The minimum water pipe size shall be 8 inches.

Exception: For multi-family or hotel/motel buildings over 3,600 square feet in area, which have residential fire sprinkler systems installed per National Fire Protection Association (NFPA) 13R, the minimum fire flow shall be based on CFC Appendix B.

All required fire flows plus domestic demand shall be available within the water system at a minimum of 20 psi residual pressure.

Fire hydrants shall be no further than 600 feet apart and the travel distance to a fire hydrant over a paved access shall not exceed 300 feet.

Exceptions:

Mini-storage type facilities may space hydrants solely on 450 feet travel distance to a hydrant.

Multi-family buildings over 5,000 square feet in area, which have residential fire sprinkler systems installed per NFPA 13R, fire hydrants shall be no further than 450 feet apart and the travel distance to a fire hydrant over a paved

access shall not exceed 225 feet.

Special high fire hazard occupancies may require larger flow rates and will be approved at the sole discretion of the fire department.

Hydrants shall be located within 375 feet of all openings for NFPA 13R sprinklered buildings and within 450 feet of all openings for NFPA 13 sprinklered buildings. (Half the distance of the hydrant spacing plus 150 feet for hose length.)

All required fire flows plus domestic demand shall be available within the water system at a minimum 20 psi residual pressure.

RESPONSIBILITY OF DEVELOPER AND/OR CONTRACTOR:

It is the responsibility of the developer and/or contractor to note and address each of the items above on both site plan and fire sprinkler plan submittal documents.