

WATER SUPPLY STANDARD OPERATING GUIDELINE

DATE APPROVED: November 2007

I. Scope

This standard establishes the requirement that an adequate and reliable water supply be established at each incident.

II. General

- A. For firefighting efforts to be effective, an adequate and reliable supply of water must be available. The adequacy and reliability of potential sources of water are constantly changing due to weather, system demands, and many other factors beyond the department's control.
- B. We shall be aware of the potential fire flow demands within our district and shall identify available options for developing a sufficient volume of water to adequately combat any fire that might occur.

III. Responsibilities

- A. The fire chief will serve as a liaison with the Public Service Authority (PSA). He/she shall report any problems found with a fire hydrant.
- B. The Incident Commander shall appoint a Water Supply Officer, when needed. The water supply officer shall:
 - 1. Contact the PSA when large amounts of water will be used at an incident.
- C. Company officers shall be responsible for
 - 1. Knowing the location of fire hydrant areas and static water source within their first due area.
 - 2. Reporting high grass, weeds, other hydrant obstructions, and other problems to the fire chief for correction.
- D. Drivers shall also know the location of fire hydrant areas in their first due area.

IV. Hydrant Color Codes

A. Hydrants are color-coded in accordance with NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, as follows:

<u>Color</u>	<u>Flow</u>
Red	less than 500 GPM
Orange	501 - 1,000 GPM
Green	1,001 - 1,500 GPM
Blue	1,501 + GPM

V. Operational Procedures

- A. Each engine company shall be responsible for providing its own uninterrupted water supply on the fire-ground. The ability to do so will be predicated on:
1. The required fire flow.
 2. The available water supply.
 3. The number of personnel available.
 4. The numbers and types of available apparatus.
- B. Calculations of required fire flow:
1. The following factors influence the required fire flow:
 - a. Construction type
 - b. Contents
 - c. Occupancy
 - d. Exposures
 - e. The presence or absence of extinguishing systems.
 2. For pre-incident plans, the calculated analysis of the fire flow shall use the following National Fire Academy (NFA) formula: **$\text{gpm} = \frac{\text{Length} \times \text{Width}}{3}$**
- The required fire flow may be reduced by 50 percent if an automatic fire sprinkler system is present.
- C. Water supplies may be established by:
1. Booster tank operations
 2. Supply lines
 3. Tanker shuttle
 4. Dump tank
 5. Other available water sources