

Part 1 of PPC Series Hydrants. Tankers. Suction Points.

We know where the water is.



By Anthony Zampella, National Water Resources Manager, ISO – Community Hazard Mitigation

ISO's Fire Suppression Rating Schedule (FSRS), revised 2012, is the manual we use in reviewing the firefighting capabilities of individual communities. The schedule measures the major elements of a community's fire suppression system and develops a numerical grading, a Public Protection Classification (PPC[™]). We assign a PPC from 1 to 10, with Class 1 representing the best public protection and Class 10 indicating no recognized protection. We have extensive information on more than 47,000 fire protection areas and more than 32,000 unique water systems.

A community's PPC depends on its fire department, water supply, emergency communications systems, and community risk reduction efforts. Forty of the approximately 105.5 credit points are based on water supply. We look at whether the community has sufficient water for structural fire suppression beyond daily maximum consumption.

Alternative water supplies also work In addition to the standard types of water supply, such as hydrants, the FSRS recognizes alternative water supply







We have the only national database of both recognized and unrecognized hydrants and alternative sources of firefighting water.

This city uses water tender operations for firefighting in areas not protected with hydrants.

systems, including dry hydrants, suction points, large-diameter hose relays, and hauled water using tanker shuttles.

The water delivery system must be available 365 days a year and provide at least 250 gpm for a two-hour duration within 5 minutes of the arrival of the first apparatus.

We treat suction points the same way we treat standard fire hydrants. Any property within 1,000 feet of a creditable suction point may be eligible for a better protection class.

Tanker shuttle operations

We may extend credit for the use of tanker shuttle operations. We consider all tankers. If the community is capable of increasing the 250 gpm within 15 minutes of the arrival of the initial apparatus and can maintain the flow for the duration (usually two hours), we will credit the higher delivery rate.

To determine a fire department's eligibility for recognition of a tanker shuttle, we need to understand the delivery capability of each apparatus. The procedure for determining a system's capability involves running a timeline analysis. We consider apparatus arrival times, travel times, discharge rates, fill rates, fire flow at the fire site, wait time for apparatus to fill or discharge their water supply, and supply delivery capability.

Community gradings

In grading a community, we recognize apparatus that support the alternative water supply effort as in-service engine companies. Such apparatus include tankers, supply-point pumpers, and relay pumpers. We don't recognize apparatus located more than 1,000 feet from the fire site as fire-site engine companies. However, we do recognize firefighters remaining at the fire site as company personnel.

LOCATION[®] has all the water

information you need Verisk has the only national database of both recognized and unrecognized hydrants and alternative sources of firefighting water. We have identified more than 6 million fire hydrants and other static water supply sources, reflecting both new and previously unreported sources as well as recently evaluated ones, and added them to the database.

LOCATION® PPC Service maintains that information on municipalities and fire districts that comprise approximately 92 percent of the U.S. population. To collect the water supply information, we employ hundreds of trained field representatives located around the country who conduct on-site community gradings. We also develop and maintain this information through our strong relationships with fire chiefs, water authorities, and other local government officials.



Anthony Zampella, national water resources manager, ISO Community Hazard Mitigation, is the ISO liaison to major water

providers. He evaluates the adequacy of water infrastructures nationwide for fire suppression capability and determines avenues to apply this information efficiently to the Fire Suppression Rating Schedule.

Call us now and reserve a date for ISO to come to your next company or association meeting, conference, or exhibition. Contact Anthony Zampella, national water resources manager, at 908-821-7689 or e-mail **azampella@iso.com** for more information.

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