Brevard County Fire Rescue

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This document is intended as a guide for property owners in the installation of a water supply for firefighting, for the sole purpose of providing reduced insurance cost for one and two family dwellings. Brevard County Fire Rescue does not represent the Insurance Services Offices (ISO) or individual insurance companies. This is a good faith effort to assist the property owner in finding a way to potentially reduce their insurance premiums. Please contact your insurance company and/or the ISO prior to taking any steps to provide a water supply.

The first step is to determine the proximity of the insured property to the nearest fire station as a vehicle would travel.

If this measurement is **greater than five (5) miles** as a responding vehicle would travel, **the installation of a water supply for firefighting purposes may not result in a reduction of your ISO insurance rating; nor would there be a possible reduction in your homeowners insurance.**

If this measurement is less than five (5) miles as a responding vehicle would travel, the installation of a certified water supply for firefighting could provide a reduction in your homeowners insurance provided that the design, installation and maintenance meets the criteria per ISO Mitigation and NFPA #1142 out lined below.

In order to receive full credit for a water supply 500gpm for a period of two (2) hours or 60,000 gallons of water may be required by the ISO. **Consult with your insurance company to determine their flow requirement.** The minimum acceptable water supply is 250gpm for a period of two (2) hours or 30,000 gallons of available water supply and an implemented **Hold Harmless Agreement**. A water supply may be called a well, drafting point, dry hydrant, body of water, water source, etc.

The depth of the water source shall be based on the 50-year drought level for the water source. There shall be not less than 2 ft (0.6 m) of water above the strainer and not less than 1 ft (0.3 m) below the strainer.

The design and installation shall be as follows:

- To be accepted by the ISO as a Certifiable Water Supply it shall be tested and certified by a registered professional engineer, registered hydrologist, registered geologist, registered soil conservationist or a federal surface water specialist **annually**.

- Each Drafting Point (Water Supply) must have a study indicating the minimum amount of water available during a drought, with an average 50 year frequency,

certified by a registered professional engineer, registered hydrologist, registered geologist, registered soil conservationist or a federal surface water specialist.

- Each Drafting Point **must** have a study indicating the minimum storage available and the minimum rate of flow available at not over a 15 foot lift during a drought with an average 50 year frequency certified by a registered professional engineer, registered hydrologist, registered geologist, registered soil conservationist or a federal surface water specialist.

- A Drafting Point may be recognized for firefighting when there is at least the required volume of water available, it is readily accessible by fire department apparatus year round and it can be expected to be available year round.

- Access to Water Sources.

  Roads providing a means of access to any required water supply shall be constructed and maintained in accordance with the following:

  (1) Roadways shall have a minimum clear width of 12 ft (3.7 m) for each lane of travel.

  (2) Turns shall be constructed with a minimum radius of 100 ft (30.5 m) to the centerline.

  (3) The maximum sustained grade shall not exceed 8 percent.

  (4) All cut-and-fill slopes shall be stable for the soil involved.

  (5) Bridges, culverts, or grade dips shall be provided at all drainageway crossings; roadside ditches shall be deep enough to provide drainage with special drainage facilities (tile, etc.) at all seep areas and high water-table areas.

  (6) The surface shall be treated as required for year-round travel.

  (7) Erosion control measures shall be used as needed to protect road ditches, cross drains, and cut-and-fill slopes.

  (8) Where turnarounds are utilized during fire-fighting operations, they shall be designed with a diameter of 120 ft (36.5 m) or larger, as required, to accommodate the equipment of the responding fire department.

  (9) Load-carrying capacity shall be adequate to carry the maximum vehicle load expected.

  (10) The road shall be suitable for all-weather use.

- Planning shall be coordinated among public and private entities that could be impacted by the installation of a dry hydrant/drafting point. Required permits to install a dry hydrant shall be obtained prior to installation.

(1) For wells with a diameter of six (6) inches or greater contact the St. Johns River Water Management District for consumptive use permitting requirements. 800-295-3264

(2) For wells less than six (6) inches in diameter contact the Environmental Health Department for permitting requirements. Typically a licensed well contractor should be able to answer your questions and obtain the required permits. (321) 633-2100

(3) For properties that intend to use a body of water for their water supply contact the Brevard County Natural Resources Department. (321) 633-2016

(4) For properties that intend to use a body of water with a well to fill/refill the body of water for their water supply contact the Brevard County Natural Resources Department and the St. Johns River Water Management District for permitting requirements.

- The Authority Having Jurisdiction (AHJ), Brevard County Fire Rescue, shall approve all aspects of the dry hydrant design and construction, including the type of materials, pipe size, and system fittings to be used. Contact the Office of Fire Prevention at (321) 637-5660.
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(1) As a minimum, Schedule 40 pipe and component fittings shall be used.

- Inspection and Maintenance of Dry Hydrants.

(1) Dry hydrants shall be inspected at least quarterly and maintained as necessary to keep them in good operating condition.

(2) Thorough surveys shall be conducted, to reveal any deterioration in the water supply situation in ponds, streams, or cisterns.

There are many more requirements that must be met in order to install and maintain a certified water supply. Contact the ISO at 1 (800) 444-4554 or visit the web site at www.isomitigation.com. We can provide additional information as well upon request.

It is recommended that you as the owner of this proposed system determine the feasibility prior to entering the design, implementation and maintenance phases and determine the return of your investment. To do this:

- Contact your insurance company and determine the annual savings you could enjoy from the installation.
- Contact a fire sprinkler contractor, engineer or hydrologist to get a cost estimate for the design and installation of various systems.
- A fire sprinkler contractor will be required to perform annual testing and maintenance as required by the Code. Get a cost estimate for these services.
- Determine if any neighbors are going to be allowed to use the system for an insurance purposes and how much the need to pay to help maintain the system. (Subtract this from the above cost estimate).
- Compare the savings figures and determine if this is something you want to commit to providing.

Class "9" insurance cost $ _____

Class "5" insurance cost $ _____

SAVINGS $ _____

System Engineering & Design Cost $ _____

System Installation Costs $ _____

Maintenance Annually $ _____

Sub Total $ _____

Add Potential Cost Sharing from Neighbors $ _____

Initial System Installation Cost $ _____

Annual Inspection and Test Certification $ _____

Maintenance Annually $ _____

SUBTOTAL $_____

Subtract Potential Cost Sharing from Neighbors $_____

Annual Reoccurring Cost $_____