Dry Hydrant...a standpipe connected by means of a non-pressurized pipeline to a water source that permits the withdrawal of water by suction

Dry hydrant, photo courtesy USDA - Natural Resources Conservation Service

Purpose

The purpose of this practice is to provide a dependable, readily available source of water for fire suppression, regardless of the time of year.

Benefits

In many rural areas, a lack of water mains and domestic fire hydrants can sometimes impair a fire department's ability to do its job quickly and efficiently. Effective placement of dry hydrants in rural areas can increase fire-fighting efficiency. As a result, dry hydrant installation can help save lives, reduce the risk of fire damage, and potentially reduce costs of fire insurance.

Applications

This practice is applicable in places where drawing water for fire suppression is necessary.

Design and Installation

Since dry hydrants are ultimately used by fire fighters, it is important to involve the local fire department in the planning and design of a dry hydrant.

Dry hydrants should be located where a dependable source of water is available. The water source must be able to supply at least 250 gallons per minute for a continuous 2-hour period at any time of the year. Dry hydrants should also be located within 10 feet of an all-weather road so fire-fighting vehicles can easily access the site, but far enough away from the water's edge to prevent hazardous situations during use or maintenance.

A minimum depth requirement exists for this practice to ensure that water remains available for use during freezing weather conditions. Consult the NRCS Field Office Technical Guide (FOTG) Standard (432) Dry Hydrant to obtain specific depth requirements.

The National Fire Protection Association (NFPA) 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting* provides detailed guidance on required materials, capacity, and water source for dry hydrants. Refer to this document for more design details.

Maintenance

After a dry hydrant installation, the site should be graded for surface drainage and vegetated or otherwise protected from erosion. The site should be kept clear of obstructions and mowed regularly to keep the area ready for emergency use.

Pumper testing of the dry hydrant should be done twice annually to verify the site usability. The test should involve back flushing followed by pumping at the maximum design flow rate. Any silt, debris, or other interference to full operation of the dry hydrant should be removed.

The NFPA standard 1142 provides detailed guidance on how to operate and maintain dry hydrants. Operation and maintenance plans should also be completed in cooperation with the local fire department.

Relative Cost

Installation	**low**	●●●○○	**high**
Maintenance	**low**	●●●○○	**high**

For Additional Information…

Visit the Indiana NRCS office online at http://www.in.nrcs.usda.gov/, see the Indiana FOTG Standard (432) Dry Hydrant, or contact your local USDA-NRCS office.

Local USDA-NRCS contact information

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