

Water System Hydraulic Study Standard

9/9/10

Hydraulic studies of the Town of Amherst system should consider the following “worst case” scenario:

- The normal “weekend” low has both water tanks 10’ below overflow. Note that the Union Hill and Waughs Ferry Road tanks are both rated at 1,000,000 gallon capacity and both have the same overflow elevation, but they are different shapes; the Union Hill tank is 19.2’ high and the Waughs Ferry Road tank is 50’ high.
- All pumps at the water plant are off.
- The Sweet Briar College Pump Station is off.
- Baseline domestic usage is factored in as the then-current annual average plus estimates of overall growth in the Town and in specific service areas.
- At this worst-case system condition, there is a 2-hour fire event somewhere in the Town.
- Reference is made to the February 8, 1995 minimum fire flow policy (below).

A RESOLUTION TO ESTABLISH GOALS AND MINIMUM REQUIREMENTS FOR THE INSTALLATION OF FIRE HYDRANTS FOR THE TOWN OF AMHERST WATERWORKS.

Whereas, the Town of Amherst operates water production and distribution facilities which serve the Town residents and certain lands outside its corporate limits; and

Whereas, the Town Engineer has recommended that certain standards need to be established as guidelines for the proper and adequate design of distribution lines; and

Whereas, the Virginia Department of Health requires that all new waterworks facilities meet such standards;

Now, therefore, be it resolved by the Amherst Town Council that the following standards are set for the installation of fire hydrants attached to the Town's waterworks:

1. The designated, minimum hydrant delivery for fire protection and the minimum flow rating for new hydrants on future systems is hereby established at 250 gpm with a twenty (20) psi residual system pressure under all normal operating conditions.
2. A goal of 500 gpm at all hydrants provided in the system with a twenty (20) psi residual system pressure under all normal operating conditions is hereby established.
3. Periodic evaluation of capital improvements plans shall consider these criteria.

Be it further resolved that this resolution be spread upon the minute books of the Amherst Town Council.

This resolution was passed by a vote of the Amherst Town Council on February 8, 1995.