

Summary of WSWG Recommendations

The Water Supply Work Group has formulated 32 specific recommendations for enhancing the County's ability to provide an adequate, reliable, uninterrupted and expandable water supply for fire suppression. While all of the recommendations are important, the WSWG has identified ten select recommendations of greatest significance. The "top ten" recommendations, presented in order of priority, are listed below.

TOP TEN RECOMMENDATIONS

1. Initiate legislation mandating installation of quick-response, residential sprinklers in new single-family detached dwellings, and retrofit existing high-rise apartment buildings as required by the Life Safety Code.
2. Deploy resources and create SOPs that will enable first arriving suppression units to initiate a rural fire attack with at least 5,000 gallons of water for ten minutes (i.e., 500 GPM minimum fire flow for ten minutes).
3. Place four additional tankers in service, one each at Fire Stations 31, 4, and 30, and a reserve tanker at an appropriate location.
4. Develop a MCFRS operations policy and training program addressing all aspects of fire department water supply, encompassing standard operating procedures for urban, suburban and rural areas.
5. Add tankers to the structure fire response assignment for all streets in areas where municipal fire hydrants are not available.
6. Develop Geographic Information System maps and diagrams indicating the locations of all hydrants, fire department connections, and static water supply sources.
7. Develop an inspection procedure that assures compliance with NFPA 25, "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems."
8. Service test all MCFRS pumpers on an approved schedule.
9. Replace current 3-inch supply hose with 4-inch large-diameter hose equipped with quarter-turn connections.
10. Develop a contingency plan that provides for adequate water supply for fire suppression during times of catastrophic failure of any of the three municipal water systems serving the county.

WSWG Overall Recommendations

The following is a summary of WSWG recommendations, organized by category. The recommendations include those stated individually in the body of the report as well as others that are general in nature addressing a number of water supply issues, collectively.

Legislative Issues

1. The MCFRS should initiate actions necessary to introduce legislation to mandate the installation of quick-response, residential sprinklers in new single-family detached dwellings, and the retrofitting of existing high-rise apartment buildings as required by the Life Safety Code.

Equipment and Apparatus

1. Place four additional tankers in service, one each at Fire Stations 31, 4, and 30, and a reserve tanker added to the fleet and housed at an appropriate location.
2. Service test all MCFRS pumpers on an approved schedule.
3. Replace current 3-inch supply hose with 4-inch large-diameter hose equipped with quarter-turn connections and locking safety lugs. In addition, connections on both ends of the hose lay be equipped with swivels to prevent the charged line from unlocking accidentally.
4. All fire fighting hose should be tested annually in compliance with NFPA-1962, "The Standard for the Care, Use and Service Testing of Fire Hose, Including Couplings and Nozzles."
5. Pumpers purchased in the future should be equipped with 1500 GPM pumps.
6. MCFRS pumpers should carry a standard hose and hose appliance complement that is designed to maximize the capacity and efficiency of the apparatus.
- 7a. The specifications for future tankers should closely parallel the existing elliptical-type tankers in service at Stations 14 and 17 with additional improvements as listed.
- 7b. All local fire and rescue department apparatus specifications prepared for purchase should be reviewed by the Apparatus Specifications Committee to assure that essential components are standardized.

8. The MCFRS should initiate a cooperative effort with the State Highway Administration and County's Department of Public Works and Transportation to strategically place six-inch, dry, vertical standpipes on key highway overpasses along limited-access highways in Montgomery County. Guidelines stated in NFPA 502, "Fire Protection for Limited Access Highways, Tunnels, Bridges, Elevated Roadways, and Air Right Structures," should be incorporated as appropriate.
1. A pumper equipped with a compressed-air foam system should be purchased to enable pilot testing of this new technology.

Training, Tactics and Operation

1. MCFRS resources should be deployed and rural SOPs be established that will enable first arriving suppression units to initiate a fire attack with at least 5,000 gallons of water for ten minutes (i.e., uninterrupted 500 GPM minimum fire flow for initial ten minutes).
2. A MCFRS operations policy should be established addressing all aspects of fire department water supply, encompassing standard operating procedures for all areas of the county – urban, suburban and rural. In addition, all MCFRS operational personnel receive updated training on fire department water supply, addressing new tactics, equipment, and technology implemented as a result of the overall recommendations of the Water Supply Work Group.
3. Tankers should be added to the structure fire response assignment for all streets in areas where municipal fire hydrants are not available. To designate these areas, separate block face nodes should be established within the computer-aided dispatch system and assigned separate fire box areas.
4. Suppression forces should deliver a minimum required fire flow of 3000 GPM for townhouses, garden apartments, and other groups of dwellings.
5. Establish certified drafting points in non-hydranted areas, meeting minimum criteria established by the Insurance Services Office (ISO), for use during initial fire attack. [This recommendation does not apply to tanker fill sites.]
6. A new and distinct dispatch assignment should be established for a supplemental "Water Supply Task Force" that comprises two tankers for water shuttle, a pumper to pump from a static or hydranted fill-site, and an additional command officer to be dedicated to the water supply function.
7. Develop improved coordination, training, and maintenance for use of existing sound barrier standpipe connections along portions of Interstate 495.

8. Identify alternate water supply sources by means of standard reflective signs along main roads, indicating the source's location, capacity, and distance from the posted sign.
9. Tactical use of dry vertical standpipes should be adopted as the preferred method to establish expanded water supply relays on limited-access highways. [Tied to Recommendation #8 under Equipment and Apparatus]
10. Initiate a pilot test of fire hydrant marking systems in both urban and suburban areas.

Planning and Technology

1. Develop standardized Geographic Information System/AutoCAD maps and diagrams indicating the locations of all hydrants, fire department connections, and static water supply sources. When the mobile data terminal (MDT) system goes online, ensure the inclusion of these maps and diagrams and tie to them data files concerning access, ownership, and specific operational tactics regarding each water supply source. In the interim until the MDT is implemented, develop and place on-board fire suppression unit's hard copy plans that include the same maps, diagrams, and information.
2. The MCFRS Office of Fire Code Enforcement should develop an inspection procedure for use during in-service inspections for all buildings equipped with an automatic sprinkler system, standpipe system, and/or fire pump, that assures compliance with NFPA 25, "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems."
3. A contingency plan should be developed by the MCFRS that provides for adequate water supply for fire suppression throughout Montgomery County during times of catastrophic failure of any of the three municipal water systems serving the county.
4. The MCFRS should develop a program to expand the use of dry hydrants in rural portions of the county, incorporating NFPA 1231 guidelines as appropriate.
5. The MCFRS should explore available Class B foam strategies and develop a plan to improve Class B fire fighting foam capabilities. Included in this plan should be a county-wide foam strategy for suppressing flammable liquid fires on limited-access highways.
6. The MCFRS should move forward with the proposed risk analysis to be performed at the station response area or fire box area level, in order to fully identify fire-related risks.

7. The Fire Rescue Commission should initiate immediate action to correct the problems regarding “EMBRs” compliance and the process for estimating fire loss.
8. The MCFRS should monitor the expansion and looping of water mains in the Damascus and Clarksburg areas, and, to the greatest extent possible, support increased water storage capacity throughout the WSSC high zone.

Inter-Agency Coordination

1. Improve planning and working relationships with the three municipal water authorities serving Montgomery County.
2. Coordinate with the three municipal water authorities MCFRS review of their hydrant flow records on a regular basis.
3. Encourage the WSSC to improve maintenance efforts regarding fire hydrants throughout their system, and to update the process for notifying the MCFRS of out-of-service hydrants.
4. The problems concerning the dry standpipe running the length of the American Legion Bridge at Cabin John should be addressed by the MCFRS, State Highway Administration, and other appropriate authorities.