

# **PUTNAM PUBLIC SERVICE DISTRICT**

Post Office Box 860  
Scott Depot, West Virginia 25560-0860  
Telephone: 304-757-6551 / Fax: 304-757-6558

## **WATER ORDINANCE #1**

### **SPECIFYING AND APPROVING CERTAIN METHODS, MATERIAL AND TEST PROCEDURES TO BE USED IN MAKING CONNECTIONS AND CONSTRUCTING A WATER SYSTEM IN THE TERRITORY OF THE PUTNAM PUBLIC SERVICE DISTRICT BY DEVELOPERS FOR PRIVATE DWELLINGS, SMALL COMMERCIAL STORES AND BUSINESS ESTABLISHMENTS**

WHEREAS the Putnam Public Service District recognizes the importance of constructing a proper water line to prevent future complications due to the initial installation by a developer, and

WHEREAS certain procedures and materials are known to contribute serious problems, thereby imposing extreme maintenance problems on water system and treatment plant facilities, and

NOW THEREFORE be it ordained by the Putnam Public Service District.

#### **SECTION I. Detail Specifications**

1. All pipe shall be at least class 200 and approved by the District with a minimum coverage 42 inches.
2. Metallic Detector Tape six (6) inches wide labeled "CAUTION WATER MAIN BURIED BELOW" shall be required and installed approximately 12 to 24 inches below the surface and centered above the pipe.
3. Tracer wire #12 AWG solid strain shall be installed at pipe elevation and brought up outside of valve boxes, air/vacuum valves and blow-off assemblies.
4. Concrete thrust block and pins required at all bends (i.e. 11°, 22°, 45°), blow off assemblies and tees.
5. All valves and hydrants must be up to grade before the District will release to Putnam County Office of Planning & Infrastructure.
6. All valves must be gate valves.
7. All fittings must be mechanical joint used with restrainers.
8. If suitable backfill material is not available, sand or pit run may be used to bed water mains and cover pipe 6" to 12" above top elevation of pipe.
9. When crossing high-pressure lines such as gas, the developer/contractor shall be required to encase water mains.
10. All creek crossings must be ductile iron pipe or encased and gripper rubbers shall be used on pipe.
11. When running parallel to sewer mains a 10' separation is required.
12. When water & sewer mains cross horizontally an 18" separation is required, and where possible water mains on top of sanitary sewer.
13. Ductile iron valve boxes are required with concrete aprons around the top.

14. The developer/contractor should use hydrant valves and tees and at least class 200 PVC pipe or better from tee to hydrant. If hydrant valves & tees are not used, then restrainers will be required from tee to hydrant.
15. When using casing pipe the pipe joints must be restrained by mechanical joint with megalug restrainer.

## **SECTION II. Cross-Connections**

### **Purpose**

1. To protect the public potable water supply served by the Putnam Public Service District from the possibility of contamination or pollution by isolating, within its customers internal distribution system, such contaminants or pollutants which could backflow or back-siphon into the public water system.
2. To promote the elimination or control of existing cross-connections, actual or potential, between its customers in-facility potable water system, and nonpotable systems.
3. To provide for the maintenance of a continuing program of cross-connection control which will effectively prevent the contamination or pollution of all potable water systems by cross-connection.

### **Authority**

1. By the Federal Safe Drinking Water Act of 1974, and the Code of West Virginia Chapter 16, Article 1 and Public Health Laws, WV Bureau for Public Health Chapter 1, Article 5B, the District has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.
2. Putnam Public Service District, Rules and Regulations, adopted.

### **Responsibility**

The Putnam Public Service District shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or back-siphonage of contaminants or pollutants through the water service connection. If, in the judgment of the District, an approved backflow device is required at the water service connection to any customer's premises, the District, or its delegated agent, may give notice in writing to said customer to install an approved backflow prevention device at each service connection to his premises once the said notice is given. The customer shall, within one hundred eighty (180) days, install such approved device, or devices, at his own expense, and failure or refusal, or inability on the part of the customer to install said device or devices within one hundred eighty (180) days, may constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed and the District will submit request to disconnect service to the West Virginia Public Service Commission.

### **Definitions**

1. Approved - Accepted by the Putnam Public Service District as meeting an applicable specification stated or cited in this regulation, or as suitable for the proposed purpose.
2. Auxiliary Water Supply - Any water supply on or available to the premises other than the District's approved public potable water supply.
3. Backflow - The flow of water or other liquids, mixtures or substances, under positive or reduced pressure in the distribution pipes of a potable water supply from any source other than its intended source.
4. Backflow Preventer - A device or means designed to prevent backflow or back-siphonage. Most commonly categorized as air gap, reduced pressure principle device, double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bibb vacuum breaker, residential dual check, double check with intermediate atmospheric vent, and barometric loop.

- a. Air Gap - A physical separation sufficient to prevent backflow between the free-flowing discharge end of the potable water system and any other system. Physically defined as a distance equal to twice the diameter of the supply side pipe diameter but never less than one (1) inch.
  - b. Atmospheric Vacuum Breaker - A device which prevents back-siphonage by creating an atmospheric vent when there is either a negative pressure or sub-atmospheric pressure in a water system.
  - c. Barometric Loop - A fabricated piping arrangement rising at least thirty-five (35) feet at its topmost point above the highest fixture it supplies. It is utilized in water supply systems to protect against back-siphonage.
  - d. Double Check Valve Assembly - An assembly of two (2) independently operating spring loaded check valves with tightly closing shutoff valves on each side of the check valves, and properly located test cocks for the testing of each check valve.
  - e. Double Check Valve with Intermediate Atmospheric Vent - A device having two (2) spring loaded check valves separated by an atmospheric vent chamber.
  - f. Hose Bibb Vacuum Breaker - A device which is permanently attached to a hose bibb and which acts as an atmospheric vacuum breaker.
  - g. Pressure Vacuum Breaker - A device containing one or two independently operating spring loaded check valves and an independently operated spring loaded air inlet valve located on the discharge side of the check or checks. The device includes tightly closing shut-off valves on each side of the check valves and properly located test cocks for the testing of the check valve(s).
  - h. Reduced Pressure Principle Backflow Preventer - An assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two (2) check valves, tightly closing shut-off valves on each side of the check valves plus properly located test cocks for the testing of the check valves and the relief valve.
  - i. Residential Dual Check - An assembly of two (2) spring loaded, independently operating check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter to act as a containment device.
5. Backpressure - A condition in which the owner's system pressure is greater than the supplier's system pressure.
  6. Back-Siphonage - The flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.
  7. Containment - A method of backflow prevention which requires a backflow prevention device at the water entrance.
  8. Contaminant - A substance that will impair the quality of the water to a degree that it creates a serious health hazard to the public leading to poisoning or the spread of disease.
  9. Cross-Connection - Any actual or potential connection between the public water supply and a source of contamination or pollution.
  10. Fixture Isolation - A method of backflow prevention in which a backflow preventer is located to correct a cross connection at an in-plant location rather than at a water service entrance.
  11. Owner - Any person who has a legal title to, or license to operate or reside in, a property upon which a cross-connection inspection is to be made or upon which a cross-connection is present.
  12. Person - Any individual, partnership, company, public or private corporation, political subdivision or agency of the State Department, agency or instrumentality of the United States or any other legal entity.
  13. Pollutant - A foreign substance, which if permitted to get into the public water system, will degrade its quality so as to constitute a moderate hazard, or impair the usefulness or quality of the water to a

degree which does not create an actual hazard to the public health, but which does adversely and unreasonably affect such water for domestic use.

14. Water Purveyor - The municipal water department, water board, public service district or other administrative authority invested with the authority and responsibility for the implementation of a cross-connection control program and for the enforcement of the provisions of the Ordinance.
15. Water Service Entrance - That point in the owner's water system beyond the sanitary control of the Putnam Public Service District, generally considered to be the outlet end of the water meter and always before any unprotected branch.
16. West Virginia Bureau for Public Health (WVBPH) - The State of West Virginia Bureau for Public Health.

### **Administration**

1. The Putnam Public Service District will operate a cross-connection control program, to include the keeping of necessary records, which fulfills the requirements of the WVBPH Cross-Connection and Backflow Prevention Regulations.
2. The Owner shall allow his property to be inspected for possible cross-connection and shall follow the provisions of the Putnam Public Service District's program and the WVBPH Regulations if a cross-connection is permitted.
3. If the Putnam Public Service District requires that the public supply be protected by containment, the Owner shall be responsible for water quality beyond the outlet end of the containment device and shall utilize fixture outlet protection for that purpose. He may utilize local public health officials, or personnel from the Putnam Public Service District, or their designated representatives, to assist him in the survey of his facilities and to assist him in the selection of proper fixture outlet devices, and the proper installation of these devices.

### **Requirements**

1. Water Purveyor
  - a. On new installations, the Putnam Public Service District will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow preventer, if any, that will be required and will perform inspection and testing.
  - b. For premises existing prior to the start of this program, the Putnam Public Service District will perform evaluations and inspections of plans and/or premises and inform the owner by letter of any corrective action deemed necessary, the method of achieving the correction, and the time allowed for the correction to be made. Ordinarily one hundred eighty (180) days will be allowed. However, this time period may be shortened depending upon the degree of hazard involved and the history of the device(s) in question.
  - c. The Putnam Public Service District will not allow any cross-connection to remain unless it is protected by an approved backflow preventer which will be regularly tested to insure satisfactory operation.
  - d. The Putnam Public Service District shall inform the Owner by letter, of any failure to comply, by the time of the first re-inspection. The District will allow an additional fifteen (15) days for the correction. In the event the Owner fails to comply with the necessary correction by the time of the second re-inspection, the District will inform the Owner by letter, that the water service to the Owner's premises may be terminated within a period not to exceed fifteen (15) days. In the event that the Owner informs the District of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the District, but in no case will exceed an additional thirty (30) days. The Owner may appeal all notices of disconnection to the West Virginia Public Service Commission.
  - e. If the District determines at any time that a serious threat to the public health exists, the water service may be terminated immediately.

- f. The District will begin initial premises inspections to determine the nature of existing or potential hazards. Initial focus will be on high hazard industries and commercial premises.

## 2. Owner

- a. The Owner shall be responsible for the elimination or protection of all cross-connections installed on his premises.
- b. The Owner, after having been informed by a letter from the District, shall at his expense, install, maintain, and test, or have tested, any and all backflow preventers on his premises.
- c. The Owner shall correct any malfunction of the backflow preventer which is revealed by periodic testing.
- d. The Owner shall inform the District of any proposed or modified cross-connections and also any existing cross-connections of which the Owner is aware, but have not been found by the District.
- e. The Owner shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass. Owners who cannot shut down operation for testing of the device(s) must supply additional devices necessary to allow testing to take place.
- f. The Owner shall install backflow preventers in a manner approved by the District.
- g. The Owner shall install only backflow preventers approved by the District or the WVBPH.
- h. Any Owner having a private well or other private water source must have the approval of the District and the WVBPH if the well or source is cross-connected to the District's system. Permission to cross-connect may be denied. The Owner may be required to install a backflow preventer at the service entrance if a private water source is maintained, even if it is not cross-connected to the District's system.
- i. In the event the Owner installs plumbing to provide potable water for domestic purposes which is on the District's side of the backflow preventer, such plumbing must have its own backflow preventer installed.
- j. The Owner shall be responsible for the payment of all fees for permits, annual or semi-annual device testing, retesting in the case that the device fails to operate correctly, and second re-inspections for con-compliance with District or WVBPH requirements.

### **Degree of Hazard**

The Putnam Public Service District recognizes the threat to the public water system arising from cross-connections. All threats will be classified by degree of hazard and will require the installation of approved backflow prevention devices.

### **Existing In-Use Backflow Prevention Devices**

Any existing backflow preventer shall be allowed by the District to continue in service unless the degree of hazard is such as to supersede the effectiveness of the present backflow preventer, or result in an unreasonable risk to the public health. Where the degree of hazard has increased, as in the case of a residential installation converting to a business establishment, any existing backflow preventer must be upgraded to a reduced pressure principle device, or a reduced pressure principle device must be installed in the event that no backflow device is present.

### **Periodic Testing**

1. Backflow prevention devices shall be tested and inspected at least annually.
2. Periodic testing shall be performed by a WVBPH certified tester. This testing will be done at the Owner's expense.

3. Any backflow preventer which fails during a periodic test will be repaired or replaced. When repairs are necessary, upon completion of the repair, the device will be retested at Owner's expense to insure correct operation. High hazard situations will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be repaired immediately. In other situations, a compliance date of not more than thirty (30) days after the test date will be established. The Owner is responsible for spare parts, repair tools, or a replacement device. Parallel installation of two (2) devices is an effective means of the Owner insuring that uninterrupted water service during testing or repair of devices and is strongly recommended when the Owner desires such continuity.
4. Backflow prevention devices will be tested more frequently than specified in A. above, in cases where there is a history of test failures and the District feels that due to the degree of the hazard involved, additional testing is warranted. Cost of the additional tests will be born by the Owner.

### **Records**

The Putnam Public Service District will initiate and maintain the following:

- a. Master files on customer cross-connections
- b. Master files on customer cross-connection tests and/or inspections
- c. Copies of lists and summaries supplied to the WVBPH

Upon request, the Putnam Public Service District will submit records of inspections, surveys, tests or corrective actions to the West Virginia Bureau for Public Health.

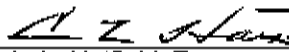
### **SECTION III. Detail Drawings**

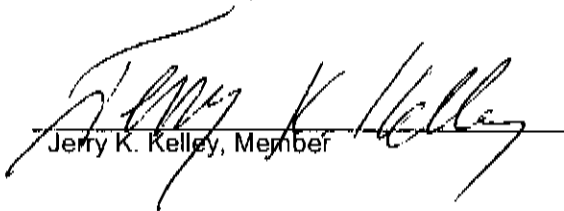
1. WATER DETAIL DRAWINGS
  - a. Drawing sheet W 1

Adopted as amended at the regular meeting of the Putnam Public Service District on this the 9<sup>TH</sup> day of APRIL, 2007.

#### **PUTNAM PUBLIC SERVICE DISTRICT**

  
\_\_\_\_\_  
Joe E. Miller, Chairman

  
\_\_\_\_\_  
Calvin L. Hatfield, Treasurer

  
\_\_\_\_\_  
Jerry K. Kelley, Member

