

41-05086

RECEIVED

MAR 27 2012

FIELD SERVICES
DRINKING WATER PROGRAM

Polehn Heights Water Association, Inc.
Cross-Connection Control Program

Mail: PO Box 1434
Oregon City, OR 97045

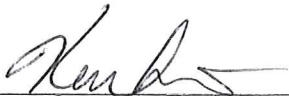
Located behind 21223 S. Richard Court
Oregon City, OR 97045

March 2012

As approved by current board members:

Ken Sweo, Chairman
Loretta Mills, Secretary
Elizabeth Keeler, Treasurer
Mike Hamlin, Director
Jason Warnock, Director

Chairman Signature: _____



Date signed: _____

3-23-2012

I. Purpose

- A. To protect the public potable water supply served by the Polehn Heights Water Association Inc. (PHWA) 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.
- B. To promote the elimination or control of existing cross-connections, actual or potential, between its customers in-plant potable water system, and non-potable systems.
- C. To provide for the maintenance of a continuing program of cross-connection or pollution of all potable water systems by cross-connection.

II. Authority

- A. The Federal Safe Drinking Water Act of 1974, and the statutes of the State of Oregon, Chapters OAR 333-061 the water purveyor has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.
- B. Polehn Heights Water Association Inc., Rules and Regulations, adopted 25 May 1995.

III. Responsibility

The Chairman of the Board of Directors of Polehn Heights Water Association, Inc. shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants through the water service connection. If, in the judgment of the Chairman of the Board of Directors, an approved backflow device is required at the systems water service connection to any customer's premises, the Chairman, or his delegated agent, shall give notice in writing to said customer to install an approved backflow prevention device at each service connection to his premises. The customer shall, within ninety (90) 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 ninety (90) days, shall constitute a ground for discontinuing water service to the premises until such device or devices have been properly installed. This is to ensure a safe water system for all PHWA shareholders.

IV. Definitions

- A. **Approved**
Accepted by the Chairman of the Board of Polehn Heights Water Association Inc. as meeting an applicable specification stated or cited in this regulation, or as suitable for the proposed use.
- B. **Auxiliary Water Supply**
Any water supply, on or available, to the premises other than the purveyor's approved public potable water supply.
- C. **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.
- D. **Backflow Preventer**
A device or means designed to prevent backflow or backsiphonage. Most commonly categorized as air gap, reduced pressure principle device, double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bib vacuum breaker, residential double check, double check with intermediate atmospheric vent, and barometric loop.

- D.1 **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.
- D.2 **Atmospheric Vacuum Breaker**
A device which prevents backsiphonage by creating an atmospheric vent when there is either a negative pressure or sub atmospheric pressure in a water system.
- D.3 **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 backsiphonage.
- D.4 **Double Check Valve Assembly (DCVA)**
An assembly of two (2) independently operating spring loaded check valves with tightly closing shut off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve.
- D.5 **Double Check Valve with Intermediate Atmospheric Vent**
A device having two (2) spring loaded check valves separated by an atmospheric vent chamber.
- D.6 **Hose Bib Vacuum Breaker**
A device which is permanently attached to a hose bib and which acts as an atmospheric vacuum breaker.
- D.7 **Pressure Vacuum Breaker**
A device containing one or two independently operated spring loaded check valves and an independently operated spring loaded air inlet valve located on the discharge side of the check or checks;. 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).
- D.8 **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.
- D.9 **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. This device is not testable and not acceptable for use in PHWA system.
- E. **Backpressure**
A condition in which the owners system pressure is greater than the suppliers system pressure.
- F. **Backsiphonage**
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.
- G. **Commission**
Oregon Health Authority, Environmental Public Health Drinking Water Program.
[Note for 2012: J. Michael Perry, Program Coordinator, Cross Connection/Backflow Prevention Program, 971-673-1220, 800 NE Oregon Street #640, Portland, OR 97232-2162]
- H. **Containment**
A method of backflow prevention which requires a backflow prevention preventer at the water service entrance.

- I. **Contaminants**
A substance that will impair the quality of water to a degree that it creates a serious health hazard to the public leading to poisoning or the spread of disease.
- J. **Cross-Connections**
Any actual or potential connection between the public water supply and a source of contamination or pollution.
- K. **Water System / Water Purveyor**
Polehn Heights Water Association Inc. (PHWA)
- L. **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.
- M. **Owner**
Any person who has legal title to, or license to operate or habitat in, a property upon which a cross-connection inspection is to be made or upon which a cross-connection is present.
- N. **Person**
Any individual, partnership, company, public or private corporation, political subdivision or agency of the State Department, agency or instrumentality or the United States or any other legal entity.
- O. **Permit**
A document issued by Clackamas County, Oregon, Building Permits, Plumbing Permit, which allows the installation and use of a backflow preventer.
- P. **Pollutant**
A foreign substance, that 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 unreasonable effect such water for domestic use.
- Q. **Water Service Entrance**
That point in the owners water system beyond the sanitary control of the District; generally considered to be the outlet end of the water meter and always before any unprotected branch.
- R. **Chairman of the Board of Directors, PHWA**
The Chairman, or his delegated representative, is 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.
- S. **Strainer**
Screen to catch debris.
- V. Administration**
- A. **The Water System will operate a cross-connection control program, to include the keeping of necessary records, which fulfills the requirements of the Commission's Cross-Connection Regulations and is approved by the Commission.**

- B. The Owner shall allow his property to be inspected for possible cross-connections and shall follow the provisions of Water System's program and the Commission's Regulations if a cross-connection is permitted.
- C. If the Water System 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 should utilize fixture outlet protection for that purpose. He may utilize public health officials, or personnel from the Water System, or their delegated 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.

VI. Requirements

A. Water System

1. On new installations, the Water System 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. Clackamas County requires a permit, inspection and testing. In any case, a minimum of a double check valve will be required in any new construction.
2. For premises existing prior to the start of this program, the Water System 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, ninety (90) 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.
3. The Water System will not allow any cross-connection to remain unless it is protected by an approved backflow preventer for which a permit has been issued and which will be regularly tested to insure satisfactory operation.
4. The Water System shall inform the Owner by letter, of any failure to comply, by the time of the first re-inspection. The Water System 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 Water System will inform the Owner by letter, and Water System will contract, at owner's expense, for installation of DCVA. In the event that the Owner informs the Water System of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Water System but in no case will exceed an additional thirty (30) days.
5. If the Water System determines at any time that a serious threat to the public health exists, the water service will be terminated immediately and Water System will contract, at owner's expense, for installation of DCVA.
6. The State of Oregon has, on file, a list of Private Contractors who are certified backflow device testers. All charges for these tests will be paid by the Owner of the building or property. The Water System will arrange for annual backflow device testing and the cost will be billed to the affected homeowners in their following month's water bill.
7. The Water System will conduct an annual survey to determine the nature of existing or potential hazards. Initial focus will be on in-ground sprinkler systems, pools, hot tubs, fountains, and ponds, as required by the State of Oregon Department of Human Services.

B. Owner

1. On new installations, the Water System 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 assist the owner

with information about permitting, installation, inspection and testing process. In any case, a minimum of a double check valve will be required in any new construction.

2. The Owner, after having been informed by a letter from the Water System, shall at his expense, install, maintain, and have tested, any and all backflow preventers on his premises. Documentation, to include a copy of Clackamas County permit and passed inspection report, must be delivered to the Water System upon completion of the testing and applicable repairs.
3. PHWA Water System will manage and bill homeowners for required annual testing unless the homeowner, in writing, requests to be excluded from the Water System annual contracted testing. If requesting exclusion, passed testing documentation must be provided to Water System by August 30, annually. If not received by that date, said device will be included with PHWA group testing and be billed to homeowner.
4. The Owner shall correct any malfunction of the backflow preventer which is revealed by periodic testing.
5. The Owner shall inform the Water System of any proposed or modified cross connections and also any existing cross-connections of which the Owner is aware but has not been found by the Water System.
6. 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.
7. The Owner shall install backflow preventers in a manner approved by the Water System.
8. The Owner shall install only backflow preventers approved by the Water System or the Commission. All backflow prevention devices must meet UPC requirements.
9. Any Owner having a private water source, must have a permit if the source is cross-connected to the Water System's system. Permission to cross-connect may be denied by the Water System. 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 Water System's system.
10. 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 non-compliance with Water System or Commission requirements.

VII. Degree of Hazard

The Water System 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 reduced pressure principle backflow prevention devices or double check valves.

VIII. Permits

The Water System shall not permit a cross-connection within the public water supply system unless it is considered necessary and that it cannot be eliminated.

- A. Cross-connection permits that are required for each backflow prevention device are obtained from the Clackamas County Building Department.

IX. Existing in-use backflow prevention devices

Any existing backflow preventer shall be allowed by the Water System 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, any existing backflow preventer must be upgraded to address level of hazard.

X. Periodic Testing

- A. All testable backflow preventer devices, if not at the meter, shall be tested and inspected annually. Premises with multiple backflow preventer devices, without one at the meter, shall be individually tested and inspected annually.
- B. Periodic testing shall be performed by a certified tester engaged by the Water System unless the owner has opted out in writing. This testing will be done at the owner's expense.
- C. The testing shall be conducted during normal business hours. Exceptions to this, when at the request of the owner, may require additional charges to cover the increased costs.
- D. 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 re-tested 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.
- E. 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 Water System feels that due to the degree of hazard involved, additional testing is warranted. Cost of the additional tests will be borne by the owner.

XI. Records and Reports

The Water System will initiate and maintain the following:

- 1. Master files on customer cross-connection tests and/or inspections.
- 2. Master files on cross-connection permits.
- 3. Copies of permits and passed inspection reports.
- 4. Copies of lists and summaries supplied to the Commission.

XII. Fees and Charges

The Water System will solicit bids from a minimum of three (3) certified backflow device testers annually before letting a contract for annual testing. Homeowners are invited to submit names of certified operators to be included on the bid list. A list of fees or charges by the winning bidder will be published before annual testing for the following services: testing, re-testing, and any additional charges for after-hours testing or re-testing.

Addendum

A. Residential double check

Effective the date of the acceptance of this Cross-Connection Control Program for the shareholders/owners of Polehn Heights Water Association Inc. all new residential buildings will be required to install a residential double check device immediately downstream of the water meter. Installation of this residential double check device on a retrofit basis on existing service lines will be instituted at a time and at a potential cost to the homeowner as deemed necessary by the Water System. The owner must be aware that installation of a residential double check valve results in a potential closed plumbing system within his residence. As such, provisions may have to be made by the owner to provide for thermal expansion within his closed loop system, i.e., the installation of thermal expansion devices and/or pressure relief valves (necessary on hot water tanks).

B. Strainers

The Water System strongly recommends that all new retrofit installations of reduced pressure principle devices and double check valves backflow preventers include the installation of strainers located immediately upstream of the backflow device. The installation of strainers will preclude the fouling of backflow devices due to both foreseen and unforeseen circumstances occurring to the water supply system such as water main repairs, water main breaks, fires, periodic cleaning and flushing of mains, etc. These occurrences may 'stir up' debris within the water main that will cause fouling of backflow devices installed without the benefit of strainers.

Section 12. Payments for Services

A All billing statements for water service are due upon receipt by the homeowner and such amounts due shall become delinquent and charged interest if not paid by the 25th day of the month of issuance.

B The Water Association may turn off the water supply after written notice has been duly given to the premises for which payment is delinquent and the water service shall not be restored until all past-due charges are paid in full, together with such other charges related to delinquency as may be determined by the Water Association. Such charges may include the cost of disconnecting and reinitiating water supply. All delinquent water charges shall be a lien upon the real property served the water service. The method of enforcement shall be a suit in equity following the procedure for foreclosure of a mortgage.

C All payments shall be directed to the Water Association, or as determined by the Association from time to time.

Section 13. Leakage Within Premises

A All leakage occurring on the homeowner's side of the meter installation shall be at the expense of the applicant including responsibility for the proper maintenance and/or repair of the lines in question.

B Water furnished by the Water Association shall not be permitted to run to waste Leaks in private pipes shall be repaired as soon as detected. The homeowner will be responsible for the cost of all water lost due to leakage within the premises for all causes

Section 14. Water Damages or Injuries Within Property

A The Water Association shall not be liable for any damage or injury whatsoever for malfunctioning of the homeowner's system including but not limited to leakage or the running of water on the premises from pipe lines, plumbing fixtures, open faucets, valves, fixtures, devices, appliances, and hoses beyond meters set at property lines.

Section 15. Initiation Water Services and Meters.

A Homeowners desiring either termination of service, interruption of service, a new service, or restoration of service shall make arrangements with the Water Association within 14 days of a change in occupancy of a dwelling

Section 16. Cross-Connections or Physical Connections with Other Water Supplies or Systems

A Neither cross-connections nor physical connections of any kind shall be made to any other water supply, whether public or private unless approved by the Board. Whenever cross-connections to other water supply into the Water Association system is found or whenever any other condition is found which presents the possibility of contamination or pollution, the water supply to such premises and/or other premises from which cross-connection is made shall be discontinued immediately until the cross-connection is eliminated or the condition remedied. All costs of disconnection and reconnection shall be charged to the water user and shall be a lien upon the real property served by the Water Association. The method of enforcement shall be a suit in equity following the procedures for foreclosure of a mortgage. The Water Association may require any necessary and appropriate checking devices in domestic lines. These requirements will be strictly observed as a matter of public health, safety and welfare, as required by the State of Oregon Plumbing Codes

Section 17. Plumbing

A All plumbing within the buildings served by the Water Association shall be installed, and plumbing fixtures constructed, so as to prevent pollution of the water supply by back siphonage or cross-connections. Water service to any premises known or found to have such defects and hazards shall be disconnected and not restored until such defects have been eliminated

B Authorized Water Association personnel may inspect such pipes and plumbing at reasonable times and with reasonable notice

Section 18. Maintenance, Repair and Testing of Meters.

A Responsibility for normal maintenance and repair of meters will be assumed by the Water Association

B A customer may request that his/her meter be tested upon making application therefore to the Water Association. If the test shows that the water meter registers more than 4% error in the actual water volume flow, the meter shall be repaired or replaced at the discretion of the Water Association. In such case, an adjustment will be made to the customer for past billing, but in no case shall an adjustment exceed a period of three months.

C The Water Association may charge the user for water service furnished through a meter which does not register. The charge for service will be an estimate based upon a comparable period as determined by the Water Association

D A customer may request that the meter be re-read if he/she feels that the bill is in error.

Section 19. Damage to Water Equipment

A The homeowner shall be liable for any damages to a meter, other equipment or property owned by the Water Association which is caused by an act of the homeowner, his tenants, licensees, agents, employees, contractors, or permittees.

B Damage to equipment shall include but not be limited to breaking of seals and locks, tampering with meters, injury to meters including damage by hot water or steam, and damaged meter boxes, curb stops and other appurtenances. Any damage so incurred will be a lien on the real property of the user served by the Water Association. The method of enforcement shall be a suit in equity following the procedures for foreclosure of a mortgage

Section 20. Maintenance and Replacement of Mains

A The Water Association will maintain and replace mains within the distribution system, provided the original installation was authorized by the Water Association.

Section 21. Main Extensions

A The Water Association will provide facilities for the general distribution of water within PH1 and PH11 subdivisions boundaries, but it shall not extend, at Water Association's expense, facilities to service additional customers, properties, tracts or subdivisions. Such extensions when required and approved shall be paid for by the customer requesting such extensions

PH1011 Enabling Authority

Polehn Heights Water Association,
Inc.

PO Box 1434
Oregon City, OR 97045

March 30, 2012

2011-2012 Board of Directors:

Ken Sweo, Chairman	503-631-3152
Mike Hamlin, Chairman	503-631-4486
Loretta Mills, Secretary	503-631-8999
Elizabeth Keeler, Treasurer	503-631-8895
Mike Hamlin, Director	503-631-4486
Jason Warnock, Director	503-631-4221

J. Michael Perry
DHS Drinking Water Program
Cross Connection/Backflow Prevention Program
P. O. Box 14450
Portland, OR 97293-0405

RE: PWS # OR 4105086


SUBJECT: 2011 Annual Summary Report, Cross Connection/Backflow Prevention Report

Dear Sir:

Enclosed is the subject report for Polehn Heights Water Association, Inc. (PHWA) for 2011.

Also enclosed is a copy of the new Cross Connection Control Plan adopted by the Polehn Heights Water Association Board of Directors. Included with the plan is a copy of the Enabling Authority from the Water Association's 'Rules and Regulations' Section 16 which has been in effect since 1995.

Sincerely,



Sheila Wahl
Systems Operations Manager