

SILVER LAKE WATER DISTRICT  
SNOHOMISH COUNTY, WASHINGTON  
RESOLUTION NO. 511

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF THE SILVER LAKE WATER DISTRICT, SNOHOMISH COUNTY, WASHINGTON, ESTABLISHING NEW AND UPDATED CROSS CONNECTION CONTROL POLICIES RULES AND REGULATIONS AND ADOPTING THE SILVER LAKE WATER DISTRICT CROSS CONNECTION CONTROL MANUAL

BE IT RESOLVED by the Board of Commissioners of the Silver Lake Water District, Snohomish County, Washington as follows:

SECTION 1. FINDINGS

- 1.1 The Board of Commissioners determines it is in the interest of the public health, safety and welfare to implement a cross connection control program in accordance with RCW Chapter 70.54 and Washington Administrative Code (WAC) Chapter 246-290-490.
- 1.2 RCW 70.119A.060 requires the District to assure safe and reliable public drinking water and to protect the public health, by taking such steps as necessary to, among other requirements, provide and effectively operate and maintain public water system facilities;
- 1.3 It is of benefit to all water customers that the location of all cross connections and backflow risks to the District's water supply be identified, proper backflow prevention devices installed and a regular program of inspections and testing of backflow protection devices be conducted.
- 1.4 Such program will be more effective and efficient if it is coordinated with the local administrative authority.

Section 2: CROSS CONNECTIONS

- A. The control, including elimination, of cross connections for all new and existing water service customers shall be in accordance with the Silver Lake Water District's Cross Connection Control Manual, attached hereto and incorporated by reference herein. In addition, applicable regulations of the Department of Health stated in the State of Washington Administrative Code (WAC 246-290-490) or subsequent revisions, shall be complied with. Where, in a specific case, different materials, methods or other requirements apply, the more restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement the specific requirement shall govern.


SECTION 3: Coordination with Local Administrative Authority

- A. Snohomish County, Everett and the City of Mill Creek are defined as "Local Administrative Authority" in State law. WAC 246-290-490 (2) (d) and the Uniform Plumbing Code 603.0 require the District to coordinate with the local administrative authority in its cross-connection control program and document and describe such coordination including delineation of responsibilities. The minimum delineation should be between the District system and the property line of the premises. Staff is directed to communicate with any and all local administrative authorities within the District service area with the goal of coordinating with such local administrative authorities in implementing a Cross-Connection Control Program.

Section 4: Forms and Letters Staff is hereby authorized to draft and use any and all forms, letters, and other documents necessary to implement and administer the District's Cross Connection Control Program.

Section 5: Severability. If any section, subsection, sentence, clause, phrase or word of this Resolution should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this Resolution.

ADOPTED by the Board of Commissioners at a regular meeting of the Silver Lake Water District, Snohomish County, Washington this 23rd day of March 2000.

  
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President and Commissioner

  
\_\_\_\_\_  
Secretary and Commissioner

  
\_\_\_\_\_  
Commissioner

I CERTIFY the above to be a true and correct copy of Resolution No. 511 adopted by the Board of Commissioners of the Silver Lake Water District this \_\_\_\_ day of March, 2000 as said Resolution appears in the records of the Silver Lake Water District.

  
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Secretary of the Silver Lake Water District

## **SILVER LAKE WATER DISTRICT CROSS CONNECTION CONTROL MANUAL**

### **I. Definitions**

Unless a different meaning plainly is required, the definitions found in WAC 246.290.010 now in effect or as subsequently amended are hereby adopted by reference as if set forth in full herein.

Director means the Operations Manager of the Silver Lake Water District, or delegated representative.

### **II. Purpose and Scope**

- A. This Manual establishes minimum standards for the District to protect the public potable water supply from possible contamination of pollution due to backflow or backsiphonage from a customer's private internal system into the public potable water system.
- B. This Manual establishes minimum cross-connection control operating policies, provides guidelines and requirements for installation, testing, and maintenance of approved backflow prevention assemblies and establishes permitting, and inspection requirements for existing and new backflow prevention assemblies.
- C. The purpose of this Manual is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this Manual.

### **III. Authority**

- A. The Federal Safe Drinking Water Act of 1974 (and Amendments of 1996), the statutes of the State of Washington Title 43 RCW and Chapter 246-290-490 WAC require purveyors to "protect public water systems from contamination due to cross connections".

### **IV. Responsibility**

- A. The Director shall be responsible for administering the provisions of this Manual.
- B. If the Director determines, consistent with the provisions of this Manual, a backflow prevention assembly is required at any customer's premises, the Director, or his delegated agent, shall give notice to the customer to install an air gap or approved backflow prevention assembly which isolates the customer's plumbing system from the District's distribution system.
- C. Installation of required backflow protection shall be a condition of continued water service from the District's water supply system to any premises upon which the potential for backflow into the District system exists shall be discontinued or refused unless corrective action is taken in accordance with this manual.

- D. Upon installation the customer shall contact the District requesting inspection of said assembly or assemblies. The customer shall be subject to all applicable inspection and permitting fees.
- E. Upon approval of the installation by the District the customer shall have the assembly or assemblies tested by a State of Washington certified Backflow Assembly Tester approved by the District (BAT) and shall submit a copy of the test report signed by the property owner to the District in accordance with this Manual.

## **V. Failure to Comply - Violations - Penalties**

Any person, firm, or corporation who willfully violates any provisions and requirements of this Manual shall be subject to discontinuance of supply of District water to the premise where the violation exists. Discontinuance of the District potable supply to the premise shall remain in effect until corrective action as required by the Director is completed, tested and approved.

## **VI. Requirements**

### **General**

- A. Compliance with the provisions of the Silver Lake Water District Cross Connection Control Manual shall be a condition of receiving the District's water supply.
- B. It is unlawful for any person to allow any contaminants or pollutants to backflow from their facility and/or property into the District distribution system. Any connections now existing or hereafter installed that could allow for backflow of any contaminants or pollutants into the District distribution system shall be discontinued and/or eliminated. Connections which cannot be discontinued and/or eliminated shall require the installation of an approved backflow prevention assembly that shall be regularly inspected and tested in accordance with the Silver Lake Water District Cross Connection Control Manual.
- C. When the District requires that the public water supply be protected by premise isolation, the owner shall be responsible for water quality beyond the outlet end of the premise isolation assembly and should utilize fixture isolation protection for that purpose. Fixture isolation assemblies shall be installed in accordance with the Uniform Plumbing Code of the Local Authority.
- D. The District may allow that the public supply be protected by fixture isolation for existing customer connections. Such an allowance shall only be permitted so long as the Director determines that the level of protection is adequate to protect the District's distribution system, and the owner agrees, in writing (unless waived by the District) to (1) implement and maintain the fixture isolating backflow protection to the satisfaction of the District; and (2) comply with all applicable plumbing codes, including permitting requirements.

### **Silver Lake Water District**

- E. On new installations the District will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow prevention assembly, if any, that will be required.
- F. For premises existing prior to the start of this program, the 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. Up to sixty days will be allowed; however, this time period may be shortened by the Director depending upon the degree of hazard involved and the history of the backflow preventer(s) or assembly(ies) in question.
- G. Premises are subject to inspection on or after the expiration date of required action to correct a cross-connection. Premises that have failed to comply with the District's request shall receive written notice, via registered mail and regular mail, postage prepaid, that water service to the premise will be terminated within a period not to exceed thirty (30) calendar days. In the event the owner informs the District of extenuating circumstances as to why the correction has not been completed, the District may grant a time extension up to but not exceeding sixty (60) days.
- H. If the District determines at any time that a serious threat to the public health exists, the water service shall be terminated immediately, provided, however, that notice will be posted on the premises affected at the time said service is terminated.
- I. Inspection shall be done during the initial installation and during on-site reviews of existing installations.
- J. When a test identifies a backflow prevention assembly is not properly functioning, the owner shall correct the malfunction and have the assembly inspected and re-tested until the backflow assembly (ies) operates correctly.

**Owner**

- K. The owner shall be responsible for the elimination or protection, by an air gap or approved backflow prevention assembly, of all cross-connection on their premises.
- L. The owner after having been informed by a letter from the District shall, at their expense, install any and all required backflow prevention assemblies.
- M. The Owner shall, at their expense, be responsible for having all backflow prevention assemblies tested: (1) at the time of installation, (2) annually after installation, or more frequently if test indicate repeated failures to meet test criteria; and (3) after an assembly is repaired, reinstalled or relocated or an air gap is re-plumbed or replaced by an approved RPBA. The test shall be performed by a State of Washington certified Backflow Assembly Tester (BAT) and signed by the owner. The results of the tests shall be reported within 30 days to the Director on a form provided by or approved by the District.
- N. The owner shall, immediately, or no later than 30 days, or otherwise as directed by the Director, correct any malfunction of the approved backflow preventer that is revealed by periodic testing.

- O. The owner shall inform the District of any proposed or modified cross-connection and also any existing cross-connections of which the owner has actual knowledge but has not been found by the District.
- P. The owner shall install only backflow prevention assemblies approved by the District.
- Q. Any owner having a private well or other private water source shall not cross-connect to the District's system.
- R. The owner shall provide access to premises to the District at the District's request. Failure to provide access to inspect facilities shall be grounds for termination of water service.
- S. The owner shall be responsible for the payment of all fees for permits, annual or semi-annual preventer(s) or assembly (ies) testing, re-testing in the case that the assembly fails to operate correctly, and any re-inspection for non-compliance with District requirements.

#### **VII. Installation and Testing - Minimum Requirements**

- A. Minimum requirements for the installation and testing of all backflow protection assemblies shall be in accordance with the Cross Connection Control Manual - Accepted Procedure and Practice produced by the Pacific Northwest Section, American Water Works Association (PNWS/AWWA), Sixth Edition, December 1995, including subsequent revisions, adopted by reference herein. A copy is available for viewing at the Silver Lake Water District; additional copies can be purchased from the PNWS/AWWA.
- B. In addition, all backflow protection assemblies shall be installed at a location that is easily accessible for inspection and testing. Assemblies located in vaults shall have adequate clearances and depths to allow the District to inspect and test. Assemblies that cannot be easily and readily inspected shall be required to be relocated and re-plumbed as required by the District. The owner shall contact the District of applicable installation requirements and standards.
- C. All bypass lines parallel to a line on which an approved backflow prevention assembly is installed shall have an approved backflow prevention assembly installed that is equal in type to the assembly required by the District on the main line.

#### **VIII. Backflow Protection Assemblies**

- A. Only approved backflow protection assemblies shall be installed for protection of the public water supply. These include RPBA, RPDA, DCVA, DCDA, SVBA OR PVBA of make, model, and size included on the current approved backflow prevention assemblies list developed by the University of Southern California (USC) Foundation for Cross-Connection Control and Hydraulic Research. Manual of Cross Connection Control or other such agency acceptable to the Director. The Washington Department of Health maintains a copy of this list (DOH Publication # 331-090). A

copy is available for viewing at the Silver Lake Water District; additional copies can be purchased from the PNWS/AWWA.

- B. Any existing backflow protection assembly in use, but not currently listed by USC, can continue to be used providing all the following conditions are met
  - 1. The assemblies were included on the District and/or USC list of approved backflow prevention assemblies at the time of installation;
  - 2. The assemblies have been properly maintained;
  - 3. The assemblies are functioning properly based on inspection by the District and testing by a certified Backflow Assembly Tester;
  - 4. The degree of protection is satisfactory for protection of the District's water system as determined by the Director.
- C. When an unlisted assembly does not meet the above conditions, is moved, or can not be repaired using spare parts from the original manufacturer, the assembly shall be replaced by an assembly currently listed as approved by the USC Foundation for Cross-Connection Control and Hydraulic Research or other such agency acceptable to the Director.

## **IX. Applicability**

- A. The provisions of this Manual are applicable to all connections to the District water supply. The District recognizes there are varying degrees of risks associated with different types of uses and will consider this when determining if a cross connection exists and if applicable backflow prevention assemblies are required.
- B. The following Tables 1, 2, 3 and 4 are derived from the Pacific Northwest Section - American Water Works Association's Cross Connection Control Manual, Accepted Procedures and Practices, Sixth Edition, 1995. These tables, subject to revisions, provide minimum requirements and guidance for the assessment of the degree of hazard and required level of protection. If the actual degree of hazard is determined, by the Director, to be higher than these tables indicate, a higher level of protection may be required.

Table 1. Summarizes the relative level of protection provided by the different categories of assemblies and preventers

Table 2. A list of customer categories or types of water use where premise isolation is required in all cases.

Table 3. A list of customer categories or types of water use where premise isolation is required for existing service connections in accordance with the provisions of Section VI - D of this Manual.

Table 4. A list of some of the fixtures, equipment or uses of water which may constitute a cross connection and the minimum level of protection required.



**TABLE 1  
RELATIVE LEVEL OF PROTECTION**

Abbreviations	Description/Application Summary [1]	Relative Level of Protection [2]
AG	Approved Air Gap For high and low health hazards, backpressure and backsiphonage	1
RPBA & RPDA	Reduced Pressure Backflow Assembly Reduced Pressure Detector Assembly For high and low health hazards, backpressure and backsiphonage	2
DCVA & DCDA	Double Check Valve Assembly Double Check Detector Assembly For low health hazards only, backpressure and backsiphonage	3
PVBA & SVBA	Pressure Vacuum Breaker Assembly Spill-Resistant Vacuum Breaker Assembly For high and low health hazards, backsiphonage only	4
AVB HBVB LFVB DCAV DCV	Atmospheric Vacuum Breaker Hose Bib Vacuum Breaker Lab Faucet Vacuum Breaker For very low health hazards, and backsiphonage only Dual Check with Atmospheric Vent Dual Check Valve or Meter Check Valve (Dual) For very low health hazards, backpressure and backsiphonage	5

Note: [1] The above descriptions of applicable and relative level of protection are based on the perspective of the District's selection of assemblies and preventers for the prevention of the contamination of the water distribution system. Plumbing codes may classify some assemblies as providing higher levels of protection and as suitable for both backpressure and backsiphonage.

[2] This Manual does not address the location, inspection, and testing of AVBs, HBVBs, LFVBs, DCAVs and DCVs.

**TABLE 2  
MANDATORY SERVICE ISOLATION**

<b>Category of Premise or Use of Water</b>	<b>Assessed Health Hazard</b>	<b>Minimum Protection Recommended at Meter</b>
Radioactive material processing plants or nuclear reactors	severe	RPBA & AG
Sewer treatment plants or sewage pump station	severe	RPBA & AG
Hospitals, medical centers, medical/dental or vet clinics, plasma centers, blood plasma centers	High	RPBA
Mortuaries	High	RPBA
Laboratories	High	RPBA
Metal plating industries	High	RPBA
Petroleum processing or storage plants	High	RPBA
Food processing and beverage bottling plants, canneries, packing (slaughter) houses	High	RPBA
Film processing facilities	High	RPBA
Piers and docks, graving docks, boat marinas, dry docks	High	RPBA
Commercial laundries and dry cleaners	High	RPBA
Premises restricting inspection	High	RPBA
Premises with unapproved auxiliary supply, including reclaimed water	high	RPBA
New		
Existing	high	RPBA
Interconnected with potable water supply	low	DCVA
Not interconnected with potable water supply		
Premises with approved auxiliary supply	Low	DCVA
Car washes	High	RPBA
Premises with fire sprinkler systems and/or private hydrants		
With chemical addition	high	RPBA/RPDA
Without chemical addition	low	DCVA/DCDA
Tall buildings (over 30 feet) (elevation above the connection between the service line and the distribution system)	Low	DCVA
Irrigation Systems (individually metered and supplied by domestic water supply)		
With chemical addition	high	RPBA
Without chemical addition	low	DCVA

**TABLE 3  
RECOMMENDED SERVICE ISOLATION**

Category of Premise or Use of Water	Assessed Health Hazard	Minimum Protection Recommended at Meter
Battery manufacturing or repair facilities	High	RPBA
Ice manufacturing and cold storage plants	High	RPBA
Residential irrigation	low	DCVA

**TABLE 4  
RECOMMENDED PROTECTION AT FIXTURES AND EQUIPMENT**

Description of fixture, equipment or use of water [1]	Assessed Health Hazard	Minimum Protection at Fixture	Additional Premise or Internal Isolation [2]
Air compressor	Low	DCVA	
Air conditioning systems	High	RPBA	
Air washers	High	RPBA	
Aquarium make-up water	High	AG/RPBA	
Aspirators, medical/lab	High	AVB	RPBA
Aspirators, medical/lab	High	RPBA	
Aspirator, weedicide, herbicide, and pesticide	High	RPBA	
Aspirator, vault drain	High	RPBA	
Autoclave	High	RPBA	
Autopsy tables	High	RPBA	
Baptismal fountain	high/low	RPBA, AG/AVB	
Bathtub, below rim filler	High	RPBA	
Bedpan washer	High	RPBA	
Post-mix beverage dispenser using CO2	High	RPBA	
Bidets	Low	AVB	
Boiler feed lines	High	RPBA	
Bottle washing equipment	High	RPBA	
Bottle washing equipment	High	PVBA/AVB	RPBA
Box hydrant (irrigation)	High	PVBA/DCVA	
Brine tank	Low	AG/DCVA	
Can washing equipment	High	RPBA	
Can washing equipment	High	PVBA/AVB	RPBA
Chemical feed tank for industrial process	High	AG/RPBA	RPBA

Table 4: Continued

Description of fixture, equipment or use of water [1]	Assessed Health Hazard	Minimum Protection at Fixture	Additional Premise or Internal Isolation [2]
Chemical feeder for commercial cleaners	High	AG/RPBA	
Chemical feeder for commercial cleaners	High	AVB/PVBA	RPBA/DCVA
Chlorinators	High	RPBA	
Commercial coffee urns	Low	AG/AVB	
Computer cooling lines	High	RPBA	
Condensate tanks	High	RPBA	
Commercial cooling kettles	Low	AG/AVB	
Cooling towers	High	AG/RPBA	
Decorative ponds	High	AG/RPBA	
Degreasing equipment	High	RPBA	
Dental equipment/cuspidors	High	RPBA	RPBA
Dialysis equipment	High	RPBA	
Dishwashers	Low	AVB	
Drinking fountains	Low	AG	
Dye vats and tanks	High	AG/RPBA	
Etching tanks	High	AG/RPBA	RPBA
Fermenting tanks	High	AG/RPBA	RPBA
Fertilizer injection	High	RPBA	
Film processors	High	RPBA	
Fire dept. connection	Low	DCVA	
Fire sprinkler system w/o chemical addition	Low	DCVA/DCDA	
Fire sprinkler system with chemical addition	High	RPBA/RPDA	
Floor drains	High	AG	
Flushing floor drains	High	AVB	DCVA
Fume hoods (lab)	High	AVB	RPBA
Garbage can washers	High	RPBA	
Heat exchangers other than double wall with leak path	High	RPBA	
Heat pumps	High	RPBA	
High pressure washers w/o chemical injection	Low	DCVA	
Hose bibbs (residential)	Low	AVB/HBVB	
Hose bibbs (industrial)	Varies	AVB/HBVB	RPBA/DCVA
Hoses, kitchen rinse	Low	AVB	
Hot tubs	High	AG/RPBA	
Commercial hot water heating boilers	High	RPBA	
Hydrotherapy baths	High	RPBA	
Ice makers	High	AG/RPBA	
Industrial fluid systems	High	RPBA	

Table 4: Continued

Description of fixture, equipment or use of water [1]	Assessed Health Hazard	Minimum Protection at Fixture	Additional Premise or Internal Isolation [2]
Intertied (looped) services	Low	DCVA	
Irrigation system (lawn) with chemical addition	High	RPBA	
Irrigation system (lawn) w/o chemical addition	Low	PVBA/DCVA	
Janitor sinks	Low	AVB/HBVB	
Kitchen equipment	Low	AVB	
Laboratory equipment	High	AVB/LFVB	RPBA
Laundry machines, commercial	High	RPBA	
Livestock drinking tanks	High	AC/AVB	DCVA
Make-up tanks	High	AG/RPBA	
Mobile carpet cleaners	High	RPBA	
Pesticide applicator trucks	High	AG/RPBA	
Photo developing sinks/tanks	High	RPBA	
Private fire hydrants	Low	DCVA	
Pump prime lines	high	RPBA	
Radiator flushing equipment	High	RPBA	
Recreational vehicle dump station	Severe	AG	RPBA
Sewer connected equipment	Severe	AG	
Sewer flushing	Severe	AG	
Spas	High	AG/RPBA	
Steam generating equipment	High	RPBA	
Sterilizers	High	RPBA	
Stills	High	RPBA	
Sumps	High	AG	
Swimming pools	High	AG/RPBA	
Trap primers	High	AG	
Used or gray water systems	High	RPBA	
X-ray equipment	High	RPBA	

[1] The information in Table 4 may differ from the backflow prevention requirements for individual plumbing fixtures found in plumbing codes. For public health protection within a customer's premise, the Uniform Plumbing Code governs. Table 4 is provided to illustrate only some of the health hazards found in plumbing systems. This table will be used by the District in assessing the degree of hazard a customer's plumbing system places upon the District's water distribution system. Deficiencies in backflow prevention within the customer's premise should be compensated for through the selection of an appropriate assembly for premise isolation.

[2] Where a high health hazard is assessed, the use of an atmospheric vacuum breaker or other backflow device for protection at a fixture should only be allowed when area or premise isolation is provided by an approved backflow assembly.

## **X. Administrative Procedures**

The Silver Lake Water District has implemented new and updated Cross Connection Control Policies, rules and procedures and adopted this Cross Connection Control Program Manual. In order to carry out the provisions of these new requirements, a surveillance program based upon proper management, effective customer education, adequate record keeping, and aggressive inspections must be properly implemented.

Such a program for cross connections and sanitary hazards initially requires the inspection of all new and existing buildings, structures, and grounds. As proposed, this procedure will require the local administrative authority to assist with these requirements. Each must be knowledgeable in the field of plumbing and building inspection, pipe arrangements, and certified in cross connection control.

### **1. Minimum Requirements**

The following requirements are based on the most current edition of the Cross Connection Control Manual published by the Pacific Northwest Section - American Water Works Association (PNWS-AWWA). These requirements are provided for clarification and in any disagreement between these listed below and requirements listed elsewhere in this Manual, the more restrictive shall govern. As described elsewhere in this manual, the premise isolation requirement may be waived or reduced for certain existing businesses, providing certain conditions are met.

#### RPBAs

- A. Premises on which materials dangerous to health or wherein toxic substances are handled, shall be required to have an approved RPBA installed at the service connection.
- B. Premises where entry is physically restricted so that inspections for cross connections cannot be made sufficient to assure that cross connections do not exist, shall be required to have an approved reduced pressure backflow assembly installed at the service connection.
- C. Premises having an auxiliary water supply with internal cross connections that are not correctable or intricate plumbing arrangements which make it impractical to ascertain whether or not cross connections exist, shall be required to have an approved reduced pressure backflow assembly installed at the service connection.

#### DCVAs

- D. Premises which handle a substance that is objectionable, although not a health hazard, in a manner constituting a potential cross connection, shall be required to have an approved double check valve assembly installed at the service connection.
- E. Premises having an auxiliary water supply with no known cross connections, shall be required to have an approved double check valve assembly installed at the service connection.

- F. Premises on which any substance that is not a health hazard but is under pressure so as to enable entry into the public water supply or where a cross connection could reasonably be expected to be present, shall be required to have an approved double check valve assembly installed at the service connection.
- G. Premises which have a repeated history of cross connections being established or re-established, shall be required to have an approved double check valve assembly installed at the service connection.

#### Fire Protection Systems

- H. Premises having a fire protection system where no chemicals are allowed to be used, shall be required to have an approved double check valve assembly (DCVA) or approved double check detector assembly (DCDA) installed at the fire service connection.
- I. Residential premises having a fire protection system where no chemicals are allowed to be used, shall be required to have an approved double check valve assembly (DCVA) installed at the water service connection.
- J. Residential fire systems with a flow through system using approved potable water pipe and materials shall not be required to install backflow protection.

#### Irrigation Systems

- K. Premises having an irrigation system where chemicals or herbicides are allowed to be used, shall be required to have an approved reduced pressure backflow assembly (RPBA) installed at the service connection.
- L. Premises having an irrigation system which is subject to flooding, backpressure, elevated piping or where compressed air is allowed to be used, shall be required to have an approved double check valve assembly (DCVA) installed at the service connection.
- M. Premises having an irrigation system which does not fall into one of the prior two categories, shall be required to have an approved pressure vacuum breaker assembly (PVBA) or double check valve assembly (DCVA) installed on the system.

## **2. New and Proposed Construction**

- A. Upon application for a developer extension agreement or a water or sewer permit, which ever is the earliest, the District or authorized designate shall require detailed plans and specifications for the plumbing installation. The customer shall also be required to complete a Cross Connection Control Program Survey.
- B. The District, or authorized designate, shall review these plans, specifications and survey to determine the probability of cross connections, the availability of auxiliary water supply, and the handling of substances which, if introduced into the water supply, would constitute a health, plumbing, or system hazard.

- C. During the construction phase of any new building, structure, or ground installation, and during the plumbing inspection, the District or authorized designate will also perform the required cross connection control inspection. Upon completion of the plumbing inspections the Water Quality Specialist or authorized designate shall complete the CCC Field Inspection Form, to document that subject cross connection control inspection has been made and to document the location of any and all backflow prevention assemblies and/or devices.
- D. All backflow prevention assemblies installed internally or at the service connection shall be tested by a certified Backflow Assembly Tester approved by the District and the test reports submitted to the Water Quality Specialist or authorized designate (using the Backflow Assembly Test Report form).

### **3. Existing Buildings, Structures, and Grounds**

The systematic program of inspection shall be established with priority given on the basis of risk to public health and shall be conducted as outlined below.

- A. A form letter will be sent to each commercial and industrial metered customer explaining the program and stressing the relationship between cross connections and water-borne disease epidemics, types of health hazards, and cross connection. The duties and liabilities of the owners or managers as well as the rules and regulations that apply, will be explained. The letter will also include a questionnaire of desired information such as the type of water used on the premises, auxiliary water supplies, chemicals used, and certain types of fixtures installed. These questionnaires are to be returned to the Water Quality Specialist or authorized designate.
- B. Based on the known information of the customers operation and the information received on the questionnaire, an inspection schedule will be prepared based on the location of the hazard within the facility and the degree of hazard posed to the utility.
- C. Approximately 10 days prior to the scheduled date of inspection the District will contact the owner, requesting an appointment with the owner/manager of the premises to discuss the necessity for the inspection and other pertinent matters.
- D. On the appointed date the Water Quality Specialist or authorized designate will meet with the owner/manager and explain the purpose of the inspection. The Water Quality Specialist or authorized designate will suggest the owner/manager appoint an individual from his firm that is knowledgeable with the firm's plumbing system to accompany the inspectors. At this time, the Water Quality Specialist or authorized designate can obtain any blue prints or drawings of the "in-plant" system that are available and discuss any questions or other problems the owner/manager may have.
- E. On the date of the scheduled inspection, the Silver Lake Water District's Inspector, with the owner's representative, will make a complete physical survey of all exposed piping. The underground system is to be checked as accurately as possible. All lines will be sketched on a field drawing, except where intricate plumbing arrangements make it impractical. In this case an "as-built" drawing will be requested. Each line shall be followed to its end and a survey made to determine whether there are any



- C. Health hazards associated with hose connection (chemical sprayers, radiator flush kits, etc.), utility sinks, and other household dangers.

If the District develops this program, this information shall be mailed directly to the customers.

The District shall also take advantage of other opportunities for public education by developing a traveling exhibit that can be set up at community events, schools and at District Headquarters.

#### **5. Registering of Certified Testers**

The District will maintain a list of Backflow Assembly Testers (BATs) that may be provided to customers. Persons or organizations wishing to be added to this list will be required to provide the District with copies of the following:

- A. Proof of current certification by the State of Washington as a BAT for all persons that are authorized to perform tests. (Expiration dates must be included)
- B. Proof of current calibration tests performed for all testing equipment (annual calibration is required).
- C. Proof of current liability insurance in an amount not less than one million dollars.

#### **6. Record keeping and tracking of assemblies**

The District will establish records that will meet all of the record keeping requirements of the state and allow effective monitoring and tracking of customer compliance with the annual backflow assembly testing requirements. The general content of the District's records will be as follows:

Information on each assembly will include: the location of the business (or water service) where it is located (some businesses may have multiple devices), initial inspection information for each location (inspector, date, survey #, comments) installation information (installed by, contact info., date installed, specific location, water line size, water pressure, hazard level and hazard protected), assembly information (assembly #, type manufacturer, size, model, serial # and inspection period), and a complete testing history (initial and final test results for each year with: pass/fail, test type, date, tester's name and certification #, line pressure and test results for all three valves, repair information, test kit info and owner's signature.)

#### **7. Standard Forms and Letters**

- A. Form Letter to be sent to all commercial and industrial customers
- B. CCC Program Survey
- C. CCC Inspection Form
- D. Backflow Assembly Test Form
- E. Various Diagrams and Specifications
- F. Miscellaneous Documents