

APPENDIX G

Cross-connection Control Program

Lake Josephine Riviera Water
Cross connection control program policy

INTRODUCTION

The Washington State Department of Health Services (DOH) regulations address the aspects of the public water supply in a manner designed to encourage sound design, construction, sampling, management, and operation practice. These regulations are adopted pursuant to the provisions of RCW#43-20 and are intended to conform to the intent of federal Safe Drinking Water Act to assure the supply of high quality, potable water in a reliable manner, quantity for intended use and protecting the health of consumers using public drinking water supplies. Pursuant to these regulations, a cross connection control program shall be included in the public water supply system plan per WAC 246-290-490, or its successor. The purpose of the cross-connection control program is to protect the health of the water consumers by eliminating any existing or potential cross-connection that could contaminate the public water supply through a backflow event. Lake Josephine Riviera Water operating under WAC 246-290-100 or its successors establishes the following cross-connection control program (CCC program) in accordance with the American Water Works Association Manual, Titled "cross connection control manual: accepted procedure and practice."

SECTION 1-ADMINISTRATIVE

1.1-PURPOSE

This program shall provide the minimum standard to safeguard against contamination due to cross connection by regulating and controlling the design, construction, quality of materials, use, testing and application of backflow prevention assemblies within the jurisdiction and of the Lake Josephine Riviera Water system.

1.2-SCOPE

The provisions of this program shall apply to the construction, alteration, moving, demolition, testing, repair and use of any plumbing system, attached to or affecting the water system of Lake Josephine Riviera Water.

1.12 -LEGISLATIVE AUTHORITY

The Lake Josephine Riviera cross connection control policies are conducted pursuant to the Washington State Administrative Code section 248-540285 ET.SEQ. with statutory authority through the revised code of Washington State section 34.04.045 and 43.020.050 ET. SEQ.

1.3 CROSS CONNECTION

For the use of this program, cross connections shall be defined as any actual or potential physical arrangement whereby a public water supply or distribution system is connected, directly or indirectly,

with any non-potable or unapproved water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device containing, or may contain, contaminated water, liquids, solids, gasses, sewage, or other waste, of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of bypass arrangements, jumper connections, removable sections, swivel or change-over device, and any other temporary, permanent or potential connections through which, or because of which, backflow could occur.

1.4- EXISTING INSTALLATIONS

All areas of cross connection or potential cross connection identified by the administrative authority of Lake Josephine Riviera Water shall be required to install approved backflow prevention assemblies. No condition shall exist under a clause of "grandfather."

1.5-RIGHT OF ENTRY

Whenever necessary to make an inspection to enforce any provisions of this CCC program, Lake Josephine Riviera Water's qualified personnel may enter such building or upon any premises during reasonable hours to inspect for hazards. Reasonable effort will be taken to contact the property owner or person in charge and request entry. If access is denied authorized staff will terminate water service until entry is secured or appropriate backflow assembly is installed, and proof of passing test results are presented to Lake Josephine Riviera Water.

1.6- INSPECTIONS

All plumbing systems connected to Lake Josephine Riviera's water system are subject to inspection regardless of ownership, location, size, or condition. It shall be the responsibility of the owner or other persons having charge to show, expose, or reveal all or any portion of any plumbing system required by the Riviera water system to inspect.

1.7- TESTING

All existing approved backflow prevention assemblies shall be tested, inspected, and reported annually as properly operable by a Backflow Assembly Tester (BAT) certified by the Washington State Department of Health. All necessary repairs and adjustments shall be completed and devices operable within one year of last approval date. All backflow prevention assemblies shall be tested promptly after installation and re-tested after repair, after the assembly is relocated, and after a backflow event has occurred. Failure to secure a certified test of operable condition will result in termination of water service until a certified test by a BAT has been filed with Lake Josephine Riviera Water.

1.8- OWNERSHIP

All backflow prevention assemblies are purchased, installed, operated, and maintained by the owner of the serviced building or property. All costs of materials, labor, equipment or purchase, installation, operations, and materials shall be born by the owner or delegate receiving benefit of the service.

1.9-MATERIALS

Only backflow prevention assemblies approved for installation in Washington State by the Washington State Department of Heath will be accepted by Lake Josephine Riviera Water. The department of health maintains a current list of approved assemblies.

1.10- NOTIFICATION

All owners of approved backflow prevention assemblies should receive notification from Lake Josephine Riviera Water of their responsibility to have their backflow prevention assembly tested to maintain the device's approval status. Notification will be sent annually upon the devices approval date. All backflow prevention assemblies shall pass an inspection and testing procedure conducted by a backflow assembly tester certified by the Washington State Department of Health within one year of the approval date.

1.11- VIOLATIONS AND PENALTIES

Existing plumbing systems containing or potentially providing cross connections shall be considered a violation, and the degree of hazard shall determine the penalties described herein.

Existing plumbing systems containing unapproved backflow prevention assemblies shall be considered as not having backflow prevention and the degree of hazard shall determine the penalties described herein.

DEGREE OF HAZARD*

Low	Letter of request to install approved backflow prevention assemblies within a designated time not to exceed 60 days. Failure to comply with the request constitutes a medium degree of hazard.
Medium	Letter requiring the installation of approved backflow prevention assemblies within a time not to exceed 30 days. Failure to comply with the request constitutes a high degree of hazard.
High	Immediate suspension of water service until the cross connection is properly protected by an approved backflow prevention assembly.

* The administrative authority of Lake Josephine Riviera Water shall establish degree of hazard.

** Actual action or requirements by administrative authority may vary.

Existing backflow prevention assemblies approved by the water purveyor, which have not been tested or approved after one year of approval date, shall constitute a violation.

SECTION 3 -PROGRAM

3.1 PROGRAM

This program established as of the adoption date of this cross-connection control policy, Lake Josephine Riviera Water has established this program to actively protect its water system from contamination and other hazards caused by cross connections.

3.2 ADMINISTRATIVE AUTHORITY

The manager of Lake Josephine Riviera Water shall designate a person to administer the cross-connection program. The person designated shall be certified by the State of Washington Department of Health, as a cross connection control specialist (CCS).

3.3 PROGRAM COORDINATOR- Duties and Powers

The coordinator shall review all possible areas of cross connection throughout the Lake Josephine Riviera Water service area and abate known conditions by either requiring the property owner to eliminate the cross connection, or controlling it by having owners of property install approved backflow prevention assemblies. It shall be the duty of the coordinator to determine the proper backflow prevention device, direct all actions necessary for proper installation and maintenance, and determine and secure approval for all assemblies. The coordinator shall enforce this cross connection policy with reasonable legal means, including, but not limited to, termination of water service. However, all enforcement actions shall be coordinated with the manager and the termination of water service for enforcement reasons shall be conducted only at the discretion of the manager.

3.4 PNWS-AWWA MANUAL - Adoption

The current addition of the "accepted procedure and practice in cross connection control manual" as published by the cross connection control committee of the Pacific Northwest section of the American Waterworks Association hereafter referred to as the "manual" is hereby adopted and amended as part of the Lake Josephine Riviera Water Cross Connection Control Policy and program. If conflicts arise between the manual and this written policy, this written policy shall supersede.

3.5 DEGREE OF HAZARD - Assessment

The coordinator shall determine if backflow prevention assemblies are required, and if so, which backflow prevention assembly shall be used, based on the degree of hazard. Determinations should be consistent with Table 8 and Table 9 of WAC 246-290-490.

3.6 AUTHORITY TO REVIEW

The program coordinator may review all known cross connection situations and backflow prevention assemblies at any time or interval, but not less than once per year. The coordinator may require any installations, replacement, alterations, maintenance, testing or elimination at any time, as often as necessary, with reasonable justification.

3.7 TESTING REQUIREMENTS

Each approved backflow prevention assembly shall be tested by a backflow assembly tester certified in the State of Washington, by and through the department of health drinking water section. All approved assemblies shall be tested on an annual basis and certified operable to maintain their approved status. It shall be the owner's responsibility to secure a certified backflow assembly tester and have each device tested and maintained in good order. Upon successful completion of the test, the BAT shall issue a certificate stating the assembly is in good operable condition. It shall be the owner's responsibility to ensure Lake Josephine Riviera Water acquires a copy of the certificate issued by the tester within 30 days. Failure to submit a copy of the certificate will suspend the approval status of the assembly and water service to the building or premise is subject to termination.

BACKFLOW PREVENTION ASSEMBLY TESTING QUALITY CONTROL

All backflow assembly testers must present documentation of current and valid BAT certification and test kit calibration to Lake Josephine Riviera Water and must use test report forms provided by Lake Josephine Riviera Water.

3.8 RECORD KEEPING

The coordinator shall maintain all records and all testing and maintenance records of all backflow prevention assemblies. All correspondence relating to the installation, maintenance, operation, modifications, notice requests, approvals, etc. shall be maintained in an orderly fashion. During the eleventh month after the last approval date of each backflow prevention assembly, the coordinator shall notify the owner of record of the responsibility for having the devices tested pursuant to this policy and the consequences of non-compliance.

SECTION 4 IMPLEMENTATION

4.1 DOCUMENTATION - known and suspected cross connections

When a cross connection, or possible cross connection is observed or identified, the coordinator shall document the observation, determine the degree of hazard, take appropriate action, and notify the appropriate people.

4.2 NOTIFICATION

The owner of property, building, or the person(s) having direct charge over the facility shall be contacted. Contact by telephone or in person shall be documented with a letter addressed to the contact person with copies to the owner directly after the meeting. If contact by telephone or in person is unsuccessful or unavailable, the owner(s) or person(s) in charge shall be notified by certified mail. Notice shall contain, but limited to a description of a cross connection and the program adopted by the board of directors, a description of where the particular cross-connection exists, actions required by the coordinator with particular requirements, the proper assembly required, a list of assemblies approved by the Washington State Department of Health, a stipulated completion date, recourses if action is not taken, and that all devices must be tested annually.

4.3 DOCUMENTATION OF KNOWN EXISTING BACK.FLOW PREVENTION ASSEMBLIES.

There currently exist certain fire services and irrigation systems throughout the system that are protected by backflow prevention assemblies. These known protection assemblies shall be documented and recorded into a permanent file as existing assemblies. Documentation shall consist of, but not limited to, the following: name, address, phone number of service; name, address of owner, general and specific location of the device(s); type, size, make, model, serial number, mounting and enclosed type.

4.4 PRELIMINARY DETERMINATION WHETHER DEVICE IS APPROVED

Upon identification of each device the coordinator shall determine if each device is an approvable backflow prevention assembly. All owners of existing devices shall be notified in writing regarding Lake Josephine Riviera Water's cross connection control policies and programs and clearly identify the assessment of each device as determined by the coordinator.

- 1) If the device appears to be approvable and appropriate to the coordinator, and the owner can supply documentation that a certified backflow assembly tester has checked and certified the device within 12 months and the device is operable, then the coordinator may approve the backflow prevention assembly upon receipt of the manufacturer's literature, if requested.
- 2) If the device appears to be approvable and appropriate to the coordinator, but the owner cannot supply documentation that a certified backflow assembly tester has certified the device within 12 months, notification to the owner shall state that the device(s) must pass the state test within 30

days of the date of the letter or water service will be suspended. If requested, manufacturer's literature must be included with the backflow assembly tester's certified report that the assembly is operable.

- 3) If the existing device is not approvable, the owner shall be contacted in writing and delivered by certified mail informing the owner that the device is not approved and why, and what requirements and steps are necessary to receive approval from the coordinator. Each written correspondence shall specify the length of time available to make necessary corrections, but not to exceed 90 days without special conditions.

4.5 FINAL DETERMINATION OF APPROVAL

Upon final testing and approval of each assembly, Lake Josephine Riviera Water shall notify the owner of each backflow assembly of its approval and the anniversary date when the assembly must be tested.

4.6 INTENDED COMPLETION OF EXISTING DOCUMENTATION

It shall be the intent of the coordinator to complete the documentation of all existing backflow prevention assemblies in the commercial sector within one year and the residential sector within two years of the date of adoption of this policy.

4.7 FUTURE INSTALLATIONS

- 1) Requirement determinations - it shall be the duty of the cross-connection coordinator of Lake Josephine Riviera Water to determine the proper backflow prevention assemblies, if any, and designate the locations in which each shall be installed.
- 2) Testing prior to service - the coordinator shall initially test or have tested all new installations of backflow prevention assemblies. Each assembly shall successfully pass the test conducted by a certified backflow assembly tester in the State of Washington and the test results submitted to Lake Josephine Riviera Water before water service is activated.
- 3) All commercial property shall have a backflow preventer for the degree of hazard with a minimum of a DCVA.

CROSS CONNECTION CONTROL EDUCATION

Lake Josephine Riviera Water will provide educational material to all water users concerning the importance of cross-connection control via periodic bill inserts, pamphlet distribution, and notification of new customers.

BACKFLOW EVENT RESPONSE

In the event of a Backflow occurrence, all information pertaining to the event will be reported to the Washington State Department of Health and will be included in the Lake Josephine Riviera Water annual summery and consumer confidence reports.

SECTION 2 -DEFINITIONS

•ADMINISTRATIVE AUTHORITY

A cross connection control specialist certified by the State of Washington Department of Health under the employment of Lake Josephine Riviera Water.

•APPROVAL/APPROVED

Approved in writing by State of Washington Department of Health.

*APPROVED BACKFLOW PREVENTION ASSEMBLY

An assembly which prevents the backflow of water or other substances into the potable water supply and is of make model and size that is approved by the Washington State Department of Health.

*ATMOSPHERIC VACUUM BREA.KER (AVB)

A device which contains a float check (Poppet), a check seat and an air inlet port. When water pressure is reduced to gage pressure of zero or below, air enters the device preventing backsiphonage. It is designed to protect against backsiphonage only.

*AUXILIARY WATER SUPPLY

Any water supply on, or available to, a premise other than the purveyor approved public water supply.

- *AUXILIARY WATER SUPPLY- approved
An auxiliary water supply that has been investigated and approved by the State Department of Public Health, is tested regularly, and is acceptable to Lake Josephine Riviera Water.
- *AUXILIARY WATER SUPPLY-unapproved
An auxiliary water supply that is not approved by the State Department of Public Health, the local agency having jurisdiction, or Lake Josephine Riviera Water.

*BACKFLOW

The undesirable reversal of flow of water or any other liquid, solid or gas, from any source back into the distribution pipes of the potable water supply.

*BACKPRESSURE

Water pressure that exceeds the operating pressure of the potable water supply and which may cause backflow.

*BACKSIPHONAGE

Backflow due to a negative or reduced pressure within the water supply system.

* CERTIFIED BACKFLOW ASSEMBLY TESTER (BAT)

A person who is certified by the State of Washington to test backflow prevention assemblies.

*CRITICAL LEVEL

The point on a vacuum breaker, which determines a minimum elevation above the flood rim of fixture or receptacle served at which the device may be installed.

* CROSS CONNECTION

Any actual or potential connection between a public water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow.

* DOUBLE CHECK VALVE DETECTOR ASSEMBLY (DCDA)

An approved device consisting of two shutoff valves isolating two approved double check valve assemblies, set parallel, equipped with a meter on the bypass line to detect small leakage, illegal use, or theft. This device may be allowed on fire line water services in place of a single detector check and DCVA installation. The approved device shall have suitable connections for testing.

* DOUBLE CHECK VALVE ASSEMBLY (DCVA)

An approved device consisting of shutoff valves isolating two internally loaded check valves, either spring loaded or internally weighted, installed as a unit between two tightly closing shutoff valves and having suitable connections for testing.

*INTERNALLY LOADED CHECK VALVE

A check valve which is internally loaded, either weighted or spring loaded, to the extent it will be drip tight in the direction of flow with a 1 psi differential.

* NON-POTABLE SUBSTANCE

Any water, liquid, solid, gas or substance, which is not safe for human consumption, as described by the Washington State Public Health Department.

* POTABLE WATER

Water which is safe for human consumption, as described by the Washington State Public Health Department.

* PRESSURE VACUUM BREAKER (PVB)

An approved device consisting of two shut off valves isolating a spring-loaded check valve, an independently operating air inlet valve, inlet and discharge shutoff valves and properly installed test cocks. The air inlet valve internally loaded to the open position, normally by the means of a spring. This internal loading allows the device to be installed on the pressure side of a shutoff valve. It is designed to protect against backsiphonage only.

* REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)

An approved device consisting of two shut off isolation valves, separated by a spring loaded differential pressure relief valve, which are installed as a unit between two tightly closing shutoff valves and have suitable connections for testing.

* REGULATORY AUTHORITY

The State of Washington Department of Health Drinking Water.

*WATER PURVEYOR

Lake Josephine Riviera Water