

4105567

CROSS CONNECTION CONTROL PROGRAM

SUNRIDGE ESTATES COMMUNITY
WATER SERVICES DISTRICT

6776 Laurel Crest Drive, Medford, Oregon, 97504

PSW ID#4105567

OCTOBER 1997

John Mittendorf
Water Commissioner SECWSD
(541) 779-5789

CROSS CONNECTION CONTROL PROGRAM

SUNRIDGE ESTATES COMMUNITY WATER SERVICES DISTRICT

TABLE OF CONTENTS

1.0 INTRODUCTION and GOAL	1
2.0 RESPONSIBILITY	1
3.0 ADMINISTRATION	2
4.0 DEFINITIONS	
4.1 Backflow and/or Backsiphonage	2
4.2 Cross Connection	2
5.0 POTENTIAL SOURCES OF CONTAMINATION	2
6.0 CROSS CONNECTION CONTROL METHODS	
6.1 With an irrigation system	3
6.2 Watering of stock animals	3
6.3 Garden spraying, pest control, and filling of swimming pools-hot tubs	4
6.4 Lawn sprinkler systems	4
7.0 CROSS CONNECTION STRATEGIES	5

CROSS CONNECTION CONTROL PROGRAM

SUNRIDGE ESTATES COMMUNITY WATER SERVICES DISTRICT

OCTOBER 1997

1.0 INTRODUCTION and GOAL

Sunridge Estates is a rural residential community of 36 lots, of which 30 currently have homes. It is located in an unincorporated area of Jackson County, one mile east of the city of Medford. *The goal of the Sunridge Estates Community Water Services District (hereinafter known as SECWSD) is to protect the drinking water supply from the possibility of contamination or pollution by the backflow or backsiphonage of toxic chemicals, pollutants, or other foreign matter into the drinking water supply with an approved backflow assembly installed at every water service connection or cross connection.*

2.0 RESPONSIBILITY

SECWSD is responsible for the protection of the SECWSD drinking water supply from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants through the drinking water service connections.

If, in the judgment of the SECWSD, an approved backflow device is required at the service connection to any customer's premise, the SECWSD shall give notice in writing to said homeowner to install an approved backflow prevention device at the service connection to his/her premises. The homeowner shall have ninety (90) days to install an approved backflow device, at his/her own expense. Failure or refusal on the part of the homeowner to install said device within ninety (90) days shall constitute grounds for discontinuing drinking water service to the premises until such device is properly installed.

The homeowner shall also provide at his/her own expense, annual inspection, testing, and maintenance of the backflow device. The homeowner is responsible for spare parts, repair, or a replacement device.

A listing of approved backflow prevention devices is maintained by the SECWSD.

3.0 ADMINISTRATION

The SECWSD will operate a cross connection control program, including the keeping of necessary records, which fulfills the requirements of the Oregon Health Division, Drinking Water Program.

SECWSD homeowners shall allow their property to be inspected for possible introduction of toxic chemicals or pollutants into the drinking water supply system and shall follow the provisions of the SECWSD program and appropriate State regulations if a cross connection is identified. If inspection of the property is denied, the homeowner must install an approved backflow prevention device.

4.0 DEFINITIONS

4.1 Backflow and/or Backsiphonage

Backflow and/or backsiphonage is the reversal of normal flow in a system, caused by a negative pressure (vacuum or partial vacuum) in the supply piping. This negative pressure can be created when there is a stoppage of the water supply due to nearby firefighting operations, repairs on the supply system, breaks in the supply system, or other similar considerations.

4.2 Cross Connection

A cross connection is a direct arrangement of a piping line which allows the drinking water supply to be connected to a line which contains, or may contain a contaminant. An example is the common garden hose attached to a sill cock with the end of the garden hose attached to a lawn sprayer. Another example would be a cross connection between the domestic drinking water and a lawn sprinkler water system.

Interestingly, the ordinary garden hose is the most common offender as it can be easily connected to the drinking water supply and used for a variety of potentially dangerous applications.

5.0 POTENTIAL SOURCES OF CONTAMINATION

Potential sources of contamination within the SECWSD are listed below, in order of potential hazard to the SECWSD drinking water system:

- 5.1 A cross connection between the drinking water supply system and lawn sprinkler water system.

- 5.2 A cross connection of the common garden hose to toxic chemicals used in lawn and garden spraying and pest control.
- 5.3 A cross connection of the common garden hose for the filling of swimming pools and hot tubs.
- 5.4 A cross connection of the common garden hose to the watering of any stock animals.

The number one source of potential hazard to the SECWSD drinking water system (a cross connection between the drinking water system and an irrigation system) is *strictly prohibited*.

The first item in the priority list, using the SECWSD drinking water system for lawn irrigation purposes, is *highly discouraged*.

6.0 CROSS CONNECTION CONTROL METHODS

Methods for protecting the SECWSD drinking water supply against cross connections and backsiphonage are listed under items 6.1 through 6.3. In some cases, the homeowner is required to install and maintain an approved backflow prevention device.

Where installation of an approved backflow prevention device is required, the homeowner is also required to provide for an annual inspection and any maintenance required to insure that the backflow device is in proper working order. The results of the annual inspection are to be sent to the Board for the required record keeping.

6.1 Watering of Stock Animals

Cross connections of the common garden hose and/or homeowner installed piping to the watering of any stock animals can be a source of backsiphonage that has the potential to contaminate our drinking water supply.

The most effective way to eliminate this potential hazard is the use of an approved Air Gap Separation between the end of the drinking water supply and any type of watering trough.

An approved air gap separation is the unobstructed vertical distance through the free atmosphere, between the lowest opening from any pipe or outlet supplying water to a tank, plumbing fixture, or other

device, and the flood-level rim of the receptacle. The approved air gap separator shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the vessel and in no case shall the gap be less than 1-inch in vertical separation above the overflow rim.

Where the installation of an approved Air Gap Separation is not used, the homeowner will be required to install an approved Double Check Valve Assembly on the drinking water supply line, after the water meter, and prior to any other connection to the drinking water supply line.

6.2 Garden Spraying, Pest Control, Filling of Swimming Pools/Hot Tubs

Cross connections of the common garden hose to toxic chemicals used in lawn and garden spraying and pest control can best be avoided by never using the drinking water supply system for this activity. When it is necessary to use the drinking water supply system, the use of a Hose Bibb Vacuum Breaker is required.

The filling of pools and/or hot tubs with the garden hose attached to the drinking water system is another activity that requires the use of a Hose Bib Vacuum Breaker.

Hose Bibb Vacuum Breakers are small inexpensive devices designed to prevent the backsiphonage of contaminants into the drinking water system through hose connections which are simply attached to sill cocks and threaded faucets, or wherever there is a possibility of a hose being attached which could be introduced to a contaminant. However, these devices should never be used under continuous pressure.

6.4 Lawn Sprinkler Systems

Although the SECWSD strongly advises against the use of our drinking water for lawn sprinkler systems, all such lawn sprinkler systems shall have an approved Double Check Valve Assembly on the drinking water supply line, after the water meter, and prior to any other connection to the drinking water supply line. If any homeowner is found to have a lawn sprinkler system attached to the drinking water supply system without an approved Double Check Valve Assembly in the proper location, the homeowner will be required to install an approved Double Check Valve Assembly on the drinking water supply

line, after the water meter and prior to any other connection to the drinking water supply line

7.0 CROSS CONNECTION STRATEGIES

Strategies for the protection of the SECWSD drinking water system include the education of the SECWSD residents and installation of approved backflow prevention devices where required. Education will be accomplished by distributing copies of this document to all homeowners.

The SECWSD has an installed backflow device at the reservoir tanks to protect reservoir water from possible contamination.

Protection by homeowners below the reservoir supply should be by use of an air gap separation for all stock watering locations, the installation of an approved backflow prevention device, or the use of a hose bibb vacuum breakers.

Locations where a Reduced Pressure Backflow Assembly or a Double Check Valve Assembly is required will be determined by inspection of the homeowners property by persons authorized by the SECWSD Board of Directors.

Record keeping is the responsibility SECWSD Board of Directors.