

**Riverbend/Riverbank Water Improvement District
Cross Connection Program
November 1, 1996**

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8 1.0 INTRODUCTION
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10 1.1 The objective of this document is to outline the procedures and
11 practices for the Riverbend/Riverbank Water Improvement District
12 to manage a cross connection program, intended to reduce the risk
13 to the potable water supply of contamination by potential hazards
14 commonly found in the vicinity of water system distribution lines.
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17 2.0 JURISDICTION
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19 2.1 Federal - The federal government, under the Safe Drinking Water
20 Act (SDWA) has jurisdiction over the public health aspects of the
21 supply of drinking water.
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23 2.2 State - The State of Oregon has responsibility for the enforcement
24 of the federal government regulations, and has set forth a timetable
25 for all municipal and community water systems to define and approve
26 their policies and ordinances, and implement testing programs.
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28 2.3 District - To be in compliance with Federal and State regulations, the
29 Riverbend/Riverbank Water Improvement District will define the cross
30 connection policies, obtain and continue State approval of the plan,
31 distribute and assist with educational information, and implement the
32 Cross Connection Program.
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34 2.4 Validity - If any provision of this ordinance or the application is found to
35 be unenforceable, the validity of the remaining portions are not affected.
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38 3.0 DEFINITIONS
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40 3.1 Cross Connection - a cross connection is any actual or potential
41 physical connection between a potable water line and any pipe,
42 vessel, or machine containing a non-potable fluid or having the
43 possibility of containing a non-potable fluid, solid or gas, such that
44 it is possible for the non-potable fluid, solid or gas to enter the water
45 system by backflow.
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48 3.0 DEFINITIONS (continued)

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50 3.2 Backflow - Backflow is a flow in reverse of the normal direction of
51 flow in a piping system. It occurs due to a difference in pressure
52 existing between points; a fluid of higher pressure flowing to a fluid
53 of lower pressure.

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55 Example 1: The most common example of potential backflow in our
56 District is that of lawn and garden irrigation systems. A combination of
57 circumstances, such as the loss of system pressure during a watering
58 cycle and the lack of a functioning backflow device, has the potential
59 of siphoning lawn or garden chemicals into the water lines which at
60 that time may have negative pressure. Professionally installed irrigation
61 systems are normally equipped with backflow or "anti-siphon" devices
62 to prevent this from occurring. These devices must be of the correct
63 type, and must be periodically tested for proper operation.

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65 Example 2: Also common in our District and of equal concern are
66 landscape ponds, fish ponds, and livestock watering troughs. These
67 must be isolated from the water system either by the use of backflow
68 devices, or with "air-gap" water connections.

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70 3.3 Air-Gap - An Air-gap connection is simply any method of supplying
71 water without using a closed-pipe connection; or, a supply where the
72 water must pass through the air, thus not be possible to siphon back.
73 The most common household examples are sinks, basins, and toilets,
74 where there is an air-gap between the supply and the use. Outside of
75 the home, ponds or containers that are manually filled with a water
76 hose should have an air space between the hose and the highest
77 water level of the container. The hose end should not be submerged.

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79 The following definition is per the Oregon State Health Division:
80 *An approved air gap is a vertical separation of at least twice the inside*
81 *diameter of the supply line, never less than one inch, measured between*
82 *the supply line and the top rim of the vessel being filled.*

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85 4.0 REGULATIONS

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87 4.1 Timetable - It is the goal of the District to have all cross connection
88 hazards resolved, to have a regularly scheduled testing program
89 by a Certified Backflow Assembly Tester in place, and to have the
90 Cross Connection Program fully operational by January 1, 2000.

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92 4.2 Backflow Devices - Every location where a cross connection hazard
93 exists must have an approved cross connection device installed.
94 The Oregon Health Division maintains a list of approved and testable
95 backflow devices. This list of devices is available from the District.

96 4.0 REGULATIONS (continued)

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5.0 PRIORITIES

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6.0 COSTS

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4.3 Testing - Each cross connection device must be tested at installation and annually thereafter by a Certified Backflow Assembly Tester. The results of those tests are to be recorded in the District files.

4.4 Reporting - The District Secretary will maintain all records regarding inspection and testing of cross-connection devices, and submit all required reports to the State in a timely manner.

5.1 Initially, each cross connection hazard will be given a hazard rating, with the most hazardous being given the highest priority for correction. The type of device required will be determined by the severity of the hazard, according to State guidelines.

5.2 After determination has been made that a cross connection hazard exists, as verified by a Certified Cross Connection Inspector, the property owner will be notified by the District Secretary. After written notification, the property owner will have 60 days to repair or complete the installation of an appropriate cross connection device. In some cases, an agreement may be reached between the property owner and the District for the District to proceed with the necessary upgrades.

6.1 General - In keeping with the District policy that all connections and devices beyond the property line shutoff valves are the responsibility of the property owner, the ownership, maintenance and installation of backflow devices are also the responsibility of the property owner. This section outlines costs, and identifies the responsibilities for payment.

6.2 Pre-Existing - Regarding irrigation systems that were installed prior to November 1, 1996 in compliance with standards existing at the time of installation, but that do not comply with current requirements, all costs to upgrade the system are the responsibility of the property owner.

6.3 Current Standards - All non-irrigation uses, and all irrigation systems installed after November 1, 1996, must be in compliance with current standards or must be upgraded at the cost of the property owner.

6.4 Inspections - All inspections required by the District, such as those that must be completed by a Certified Cross Connection Inspector, will be paid for by the District.

144 6.0 COSTS (continued)

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6.5 Maintenance - If a Certified Cross Connection Inspector determines that a backflow device is not operating properly, or if the device does not meet current requirements for testing or correct operation, the costs to repair or upgrade that device are to be paid by the property owner.

6.6 Shutoff Valves - If a residence shutoff valve has not been installed between the main service and a residence, or if such shutoff valve cannot be located, the District may elect to install a shutoff valve. In such cases, the shutoff valve costs will be paid by the district.

7.0 PENALTIES

7.1 Time Periods - In all cases where cross connection hazards have been determined to exist, or where deficiencies have been found in backflow devices, the District Secretary will provide written notice to the property owner. The property owner will then have 60 days to complete the work and correct the problem, or, as an alternative, permanently disconnect the problem area from the system.

7.2 Non-Compliance - Failure of the property owner to correct a reported problem within a 60-day time period will necessitate the revocation of the property owner's rights to water from the Riverbend/Riverbank Water Improvement District. The property owner's water service will be disconnected until such time that the cross connection device is installed and approved, or the problem area is disconnected from the system. The property owner will be responsible for all expenses that relate to disconnecting and reconnecting the water supply.