



BACKFLOW PREVENTION & CROSS-CONNECTION CONTROL PROGRAM GUIDE

TERMS

Backflow

Normally, water flows from Left Hand Water District's distribution system into a customer's property. Backflow is the reverse direction - water flowing from the customer's property into the distribution system. Pressure differences within the distribution system can cause this phenomenon. For example, if a fire truck draws water from a hydrant at a fast rate, the surrounding properties in the area might experience a decrease in water pressure, which could cause the water from those properties to siphon back into the system toward the hydrant.

Containment Devices

Also known as backflow prevention assemblies, these devices are installed where the water service enters a property. They prevent the flow of water from the customer's property back into the distribution system, which could possibly contaminate the public drinking water supply with any waterborne hazards associated with the property.

Cross-Connection

A point in a drinking water distribution system where the potable water may come into contact with chemical, biological, or radiological contaminants that may be hazardous to humans. Fire sprinkler systems which contain propylene glycol are one example.

BACKFLOW PREVENTION REQUIREMENTS

Overview

In adherence to Colorado's regulations¹, the Backflow Prevention and Cross-Connection Control program protects the public water system from cross-connection contamination by requiring customers to:

- **Install containment devices** on water services feeding specific types of properties, such as commercial buildings and multi-residential units.
- Comply with the District's program to **test containment devices** after initial installation and annually thereafter to make sure they are functioning properly.

Affected customers are notified of required device installation and testing program requirements. It is the customer's responsibility to install and maintain their backflow prevention device.

¹Refer to Article 12 of the Colorado Department of Public Health and Environment's Colorado Primary Drinking Water Regulations.



CONTAINMENT DEVICE REQUIREMENTS

Orientation: Devices must be installed in the given orientation that they were tested for as allowed by the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research (USC FCCC&HR).

USC FCCC&HR Approved: Left Hand Water District only allows devices approved by the USC FCCC&HR. The District does not provide a list of approved devices. However, each manufacturer should be able to tell you which of their devices are USC FCCC&HR approved and for what orientation.

Utility, City and State Standards: Installation of devices must meet all applicable requirements of:

- Left Hand Water District's Engineering Standards
- Local plumbing and building codes
- Article 12 of the Colorado Department of Health and Environment's Colorado Primary Drinking Water Regulations

Affected Properties

Commercial Properties: All commercial properties, as well as Landscape taps, are required to have backflow prevention devices installed and tested annually by the District's State certified backflow inspection contractor.

Residential Properties: Most residential properties have been excluded from any annual testing requirement but may still need backflow prevention devices based on plumbing code. The District may require certain residential properties to comply with commercial backflow installation and testing requirements. Residences with certain types of fire sprinkler systems would be one example of residential taps that would be required to install, maintain, and annually test a backflow prevention device. More information can be found by contacting the local plumbing inspector's office.

Although not required by the District, Left Hand Water District encourages homeowners with irrigation systems to meet State requirements and test their systems annually to make sure that dirt, bacteria, or chemicals from the lawn cannot enter into the homeowner's drinking water.

Multifamily Residences: Multifamily Residences (or "commercial-residential" properties as they are sometimes called) are required to comply with commercial backflow prevention requirements.



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SURVEYS

To verify the accuracy of reported information or assess the need for containment devices, staff from the Distribution Department might conduct property surveys. Affected customers will be contacted in these situations to arrange for a time for our staff to access the property.

CONTAINMENT DEVICE INSTALLATION AND TESTING

Left Hand Water District cannot provide installation costs. Prices vary between individual companies which provide this service; therefore, be sure to get several quotes to help you choose. Prices will also be influenced by the size of your water service and the complexity of the installation. Installers can be found in a phone book or online phone directory by looking under “**Backflow Prevention Products & Services**” or “**Plumbing Services**”. The District **recommends** utilizing only a licensed plumber or contractor to install a backflow prevention assembly. It is the customer’s responsibility to install and maintain the backflow prevention device, and to comply with the District’s Backflow Prevention Program, including, but not limited to allowing access to District staff and the District’s State certified backflow inspection contractor for annual inspection, testing, repair and/or replacement of any failed backflow prevention devices. The cost of such inspection, testing, repair and/or replacement of backflow prevention devices will be borne by the customer. After installation, annual inspection will be conducted by the District’s backflow contractor and billed to the customer’s account. The District’s backflow contractor will send an annual report (s) with the testing results of all devices, at that location, to the customer.

The District will send notification of any failed device (s), along with the Backflow Enforcement Policy’s notification (see below for complete Enforcement policy).

ENFORCEMENT OF BACKFLOW AND CROSS-CONNECTION POLICIES

It is the customer’s responsibility to install and maintain their backflow prevention devices, and to comply with the District’s Backflow Prevention Program, including, but not limited to allowing access to District staff and the District’s State certified backflow inspection contractor for annual inspection, testing, repair and/or replacement of any failed backflow prevention devices. The cost of such inspection and testing of backflow prevention devices will be borne by the customer and will be billed to the customer’s account. If the device fails, customer would be free to choose their own contractor to make any necessary repairs or replacements, and would pay them directly.

If evidence of installation of an approved backflow device is not received after customer notification, or if actions are not taken to repair or resolve any problems when notice of unsatisfactory inspection is received by the District following the annual testing of the backflow device, the following actions will be taken.



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1. A reminder notice will be sent by the District. The first notice will allow a 60 day period for compliance and note all fines and actions that may result from noncompliance.
2. If no response is received within the 60 day period, a fine of \$150 will be imposed on the 61st day following notification, and a second notice will be sent.
3. The second notice will have a 30 day period for compliance. If no response is received following the second notice, a fine of \$300 will be applied on the 31st day.
4. If no action is taken to bring the backflow status into compliance after the second notice, a third notice with a term of 30 days will be issued, and service to the tap will be discontinued if no action is taken before the end of that period.

WAIVERS AND EXTENSIONS

Please contact the District for any of the following reasons:

- **Request a waiver** when the property does not fall into one of the affected property or use categories.
- **Request an extension** when more time is needed to install, test or repair a device. Send a letter to the District office with the following:
 - Reason and length of time for the extension
 - Parcel ID number
 - Property address
 - Account number
 - Contact Name
 - Contact Phone Number

CROSS-CONNECTION CONTROL OFFICE

To contact Left Hand Water District's Distribution Department Manager, use one of these methods:

Phone: 303-530-4200

FAX: 303-530-5252

Email: adelaney@lefthandwater.gov

Mailing Address: PO Box 210, Niwot, CO 80544