

## BACKFLOW PREVENTION

### What is a backflow device?

A backflow device is a precautionary device approved by the State Office of Drinking Water and the University of Southern California (USC) Hydraulic Research Section that provides protection from hazards getting back into the City water system. Such types of hazards could be a separate irrigation system on a property, a business that uses chemicals, a property with a sewage lift station, or an unknown potential. All the proceeding hazards are considered "high hazard" situations and require what is known as a reduced pressure backflow device. Reduced pressure (RP) backflow devices have a reduced zone in the center of the device with two independent working check valves that prevent water from flowing back into the water system. This device is required per State Health Code Title 17.

#### Reduced Pressure Device



There are also "low hazards" such as a well on a property, a property with pumps, or a property with a residential fire sprinkler system. Properties with low hazards are required by State Health Code Title 17 to have a double check (DC) backflow device. The double check backflow device is a valve with two independent check valves that are spring loaded that allow water to flow through the device to the property but prevent water from flowing back.

Double Check Device



All the above listed situations are hazardous because chemicals or contaminated water could possibly back siphon into our system. Therefore, a backflow device is required in these instances to protect the integrity of the City’s water system.

Backflow assemblies are mechanical devices that may fail over time and require repair or replacement. The USC List of Approved Backflow Prevention Assemblies contains many different manufacturer and model types. Below is information from our backflow database regarding a few of the most popular devices.

**Calendar Year 2018**

Type	Manufacturer	Model	Tested	Failed (repair/replacement)	One Year Failure Rate (%)
RP	Watts	009	1761	298	17%
RP	Febco	825	578	65	11%
RP	Wilkins	975	937	42	5%
DC	Watts	007	2700	59	2%
DC	Wilkins	950	650	21	3%

**How often must my backflow device be tested?**

A certified backflow tester from the City of Santa Rosa tester list must test your backflow device once a year. The annual testing requirement is mandated by the California Code of Regulation, Title 17.



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### **How will I know when it is time to have my backflow device tested?**

When it is time for your device to be tested, the Water Quality Section will mail you a postcard as a reminder that your backflow test is due. You may download the [tester list](#) here. You are given thirty days' notice to have your device tested by a certified tester.

### **How do I get in touch with a Certified Tester?**

The tester list we provide has many different companies that are available to set up a test date with. Once you have decided on a tester, they will conduct the test and upload a copy of the test report online to Water Quality. Once your annual test is completed, our system is updated, and you will be notified again the following year when it is time for your next annual test.

### **How much do the testers charge for a backflow test?**

Currently, the charges range from approximately \$50.00 to \$150.00 a test. Please contact testers directly to inquire about costs.

### **How can I make sure my backflow device does not break during the freeze?**

Backflow devices should be wrapped with some type of insulation (bags, enclosures, etc.) during the winter months to avoid costly freeze damage. Consult your local hardware store, plumbing supply store or irrigation experts in the phone book for insulation materials.

In addition, an enclosure over a backflow device may prevent vandalism.





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### **What is a Backflow Administration Fee?**

The Water Quality section enforces the State Water Resources Control Board Division of Drinking Water regulations concerning backflow and cross-connection control. Under Section 64764 of the regulations, backflow devices must be tested annually by certified testers. Additionally, the California Health and Safety Code Section 116805 allows the water supplier to charge water users with backflow prevention devices a fee to administer the backflow program. Effective July 19, 2010, the City of Santa Rosa Board of Public Utilities authorized a fee of \$3.00 per month to be charged to customers in the Santa Rosa service area with a backflow device covered under our backflow program. On December 16, 2013, that fee increased to \$3.25 per month. The purpose of the fee is to recover costs associated with the backflow program from those who are required to maintain backflow devices as required by State regulations. The Santa Rosa Water policy is to charge fees to customers who use specific services so that those costs are paid by the user and not the general rate payer base.

### **Additional Information**

For those customers who are required to install a backflow prevention device, below is a brochure on how to install a backflow device, a brochure on the importance of a thermal protection device and City construction standards:

- [\*\*Backflow Installation Brochure\*\*](#)
- [\*\*Thermal Expansion Brochure\*\*](#)
- [\*\*Construction standard 874 - Above ground double check \(DC\) valve backflow device\*\*](#)
- [\*\*Construction standard 875 - Below ground double check \(DC\) valve backflow device\*\*](#)
- [\*\*Construction standard 876 - Reduced pressure \(RP\) backflow device\*\*](#)
- [\*\*Tester Application and Code of Conduct\*\*](#)
- [\*\*Tester Application Checklist\*\*](#)
- [\*\*NEW! Annual Backflow Test Postcard Mailers\*\*](#)
- [\*\*Testing a Detector Check Valve \(888\)\*\*](#)

**Also See:**

[\*\*Certified testers authorized to test devices in Santa Rosa\*\*](#)  
[\*\*Contractors with the ability to repair fire protection devices\*\*](#)  
[\*\*State Water Resources Control Board\*\*](#)