For more information contact:

Medford Water Commission
Backflow Prevention Program
774-2450

Or contact the City/County Building Department serving your location:

City of Medford
774-2350

City of Central Point
664-6325

City of Eagle Point
826-4212

City of Jacksonville
899-1231

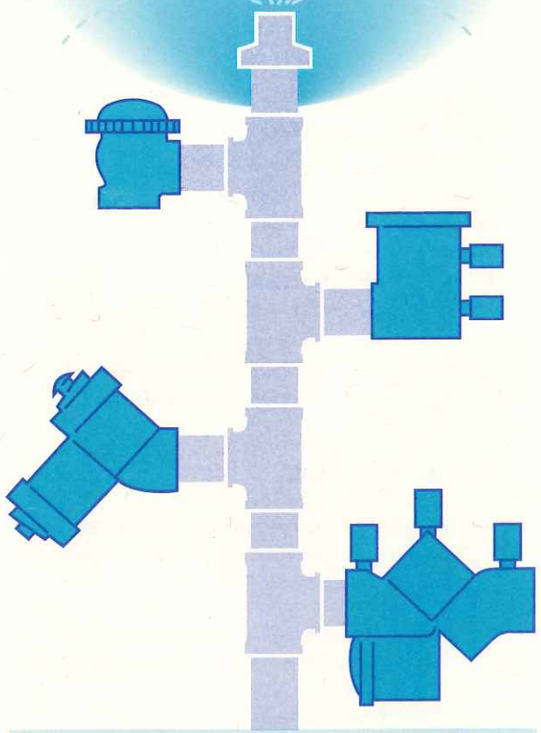
City of Phoenix
535-2226

City of Talent
535-1566

Jackson County
774-6900

MEDFORD WATER COMMISSION
200 S. Ivy St. – Room 177
Medford, Oregon 97501
TEL: 541-774-2430 ■ FAX: 541-774-2555
Email: wtrcom@ci.medford.or.us
Online: www.medfordwater.org

Irrigation Systems & Backflow Prevention



Protecting Your Drinking Water

Guarding Against Contamination

Sprinkler systems can make watering lawns and gardens easier and save you time. But they can also be fairly complex, and deciding which items are best to install can be confusing. One component that must be included with an irrigation system is a backflow prevention device. This brochure explains their role and provides information to help you decide which type of backflow prevention assembly might be best for you.

What is Backflow?

Backflow refers to a reversal in the normal direction of water flow. If this occurs, contaminated water can be drawn back into household plumbing or the public drinking water supply. State health regulations identify situations where the potential for unsafe backflow exists, and require the use of devices designed to prevent backflow from occurring.

Backflow Prevention Devices and Irrigation Systems:

Since water within irrigation pipes can contain microbes or garden chemicals, **backflow prevention devices are always required with irrigation systems.**

Plumbing Permits:

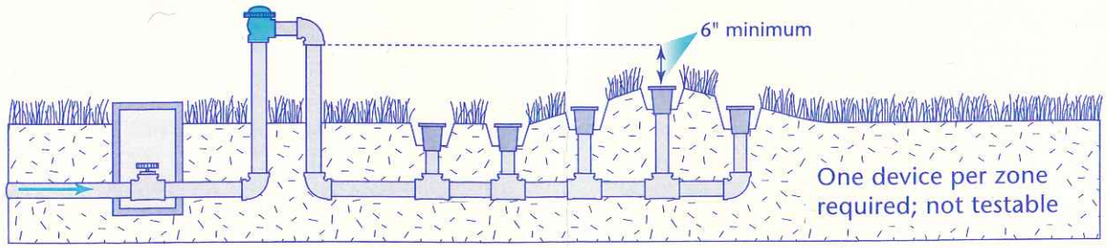
Because irrigation systems are connected to your household water supply, an inspection of the connection and the backflow prevention assembly is required. A plumbing permit must therefore be obtained from your local Building Department.

Understanding the Choices:

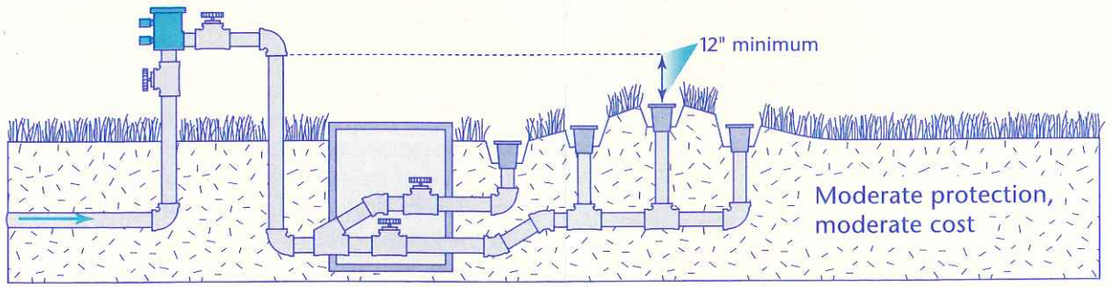
There are a variety of backflow prevention options available, but not all are appropriate for every circumstance. The table and Illustrations inside this brochure provide a comparison of these devices. Among the factors that may be important in deciding which type to install are the following:

- For some people, above ground installation is fine. Others find they don't like the appearance or prefer the greater protection from weather elements and vandalism provided by underground installation.
- Note that some devices must be located higher than any sprinkler served. If your yard is sloped and you will have sprinklers or other outlets located uphill from your backflow preventer, you may need to locate these devices fairly high above the ground to satisfy this installation requirement.
- Most devices require testing when installed and annually thereafter. This is a preventive measure to assure that the device is working properly. Contact your water supplier or local Building Department for a list of certified testers.
- Note that most backflow preventers do not provide adequate protection for applying any garden chemicals through your irrigation system.
- Avoid making initial cost the only deciding factor. When comparing costs, remember that a separate AVB is required for each irrigation zone, so savings will diminish with each additional zone.

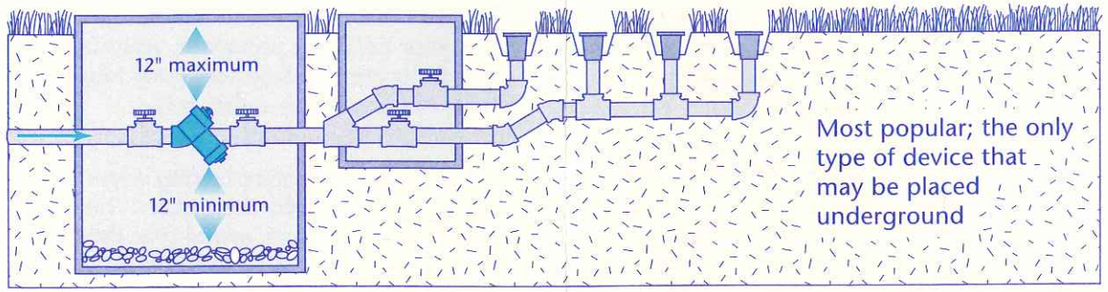
AVB: Atmospheric Vacuum Breaker



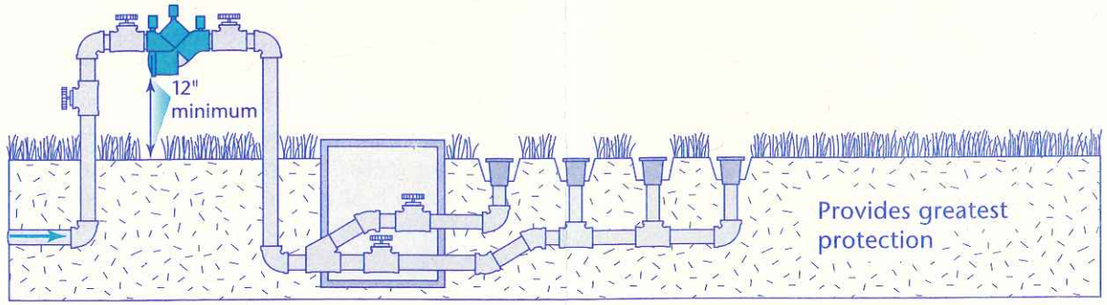
PVBA: Pressure Vacuum Breaker Assembly



DCVA: Double Check Valve Assembly



RPBA: Reduced Pressure Backflow Assembly



Comparing Backflow Assembly Features

FACTOR	AVB	PVBA	DCVA	RPBA
Install above or below-ground?	Above ground, at least 6" above highest sprinkler	Above ground, at least 12" above highest sprinkler	Either above or below, but no more than 12" below ground	Minimum of 12" above ground
Can be tested?	No, difficult to know if device has failed	Yes, requires annual test	Yes, requires annual test	Yes, requires annual test
Number of assemblies required?	One for each irrigation zone	One can serve entire irrigation system	One can serve entire irrigation system	One can serve entire irrigation system
Ok to locate valves downstream of assembly?	No	Yes	Yes	Yes
Ok to apply fertilizers and other chemicals through irrigation system?	No	No	No	Yes, if chemicals are added downstream of device
Cost	Often least expensive	Moderate	Moderate	Most expensive

Notes and Tips:

- Installing an underground, but accessible shutoff valve upstream of the backflow prevention device will enable you to turn off the water source to your backflow preventer and irrigation system for maintenance or winterizing.
- While RPBAs may be covered within an enclosure for less visibility and more protection, AVBs and PVBAs must be left open to the atmosphere at all times during which they are receiving water.
- Properties which have well water or other auxiliary water sources available in addition to a public supply must also provide backflow protection with an RPBA located adjacent to the water meter.
- The initial backflow assembly test is the responsibility of the installer. If your residence receives water directly from the Medford Water Commission, annual testing will be provided by the Water Commission after the assembly is in place, tested and verified to be functioning properly.