



RECLAIMED WATER

Getting Ready for Reclaimed Water

Reclaimed Water Irrigation System Labeling Requirements

Existing Irrigation Systems

1. Existing systems are not required to replace the existing irrigation system piping with impregnated purple pipe except when an existing irrigation system is expanded, repaired, or modified.
2. All existing reclaimed water irrigation system piping that is not identified and is exposed for any reason must be wrapped with identification tape or replaced with impregnated purple pipe.
3. Existing systems are not required to replace control boxes on irrigation systems; however, control boxes must be painted purple and identified with a reclaimed identification tag (available from Tucson Water inspectors). Single family residential boxes are not required to have identification tags.
4. All replacement control boxes must be made of impregnated purple material.
5. All existing and replacement control valves must be marked with a reclaimed identification tag (available from Tucson Water).

New Irrigation Systems/Replacement Components

1. All new reclaimed water irrigation systems are required to use impregnated purple pipe.
2. All new control boxes must to be made of impregnated purple material.
3. All new control valves must be marked with a reclaimed identification tag (available from Tucson Water).
4. All new sprinkler heads must be made of impregnated purple material.



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Installation of Identification Tags

(ask Tucson Water inspector for tags)

Control Valve Identification Tags

1. Install on the irrigation system pipe located in the control valve box.
2. Use only one (1) tag per box, regardless of the number of valves in the box.
3. Insert a plastic wire tie through the hole in the tag.
4. Strap the self-locking tie around the irrigation system pipe.

Control Valve Box Identification Nameplates

(not required for single family residences)

1. Install on the reclaimed water irrigation valve box cover.
2. Paint valve box cover purple before attaching identification nameplates.
3. Use identification nameplate as a template to locate the installation area and hole alignment.
4. Use a 3/16" drill bit to drill holes (approximately 3/4" deep).
5. Press "tamper proof" rivet through the identification nameplates and drive the expansion nail to secure.

Backflow Prevention

All sites that have a reclaimed water meter are required by the Arizona Department of Environmental Quality to have a reduced pressure backflow prevention assembly installed on the potable water service. This backflow prevention assembly is there to protect the public water system. In the event that there is a cross-connection between your reclaimed and potable water systems, the backflow prevention assembly stops reclaimed water from entering the potable water system.

Backflow prevention assemblies can be installed by homeowners on their residential services; however, businesses and other reclaimed water customers must have the assemblies installed by a licensed contractor. A permit must be purchased from Tucson Water prior to installation of the assembly.

All assemblies must be tested annually by a certified backflow tester who is registered with Tucson Water. A list of these testers is at

https://www.tucsonaz.gov/files/water/docs/Backflow_Tester_List.pdf.



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Protect Your Hot Water Heater and Structures (*Thermal Protection*)

Owners and occupants of sites that have backflow prevention assemblies need to be aware that additional plumbing adjustments may be required to prevent thermal expansion damage. When a backflow prevention assembly is installed, a “closed” plumbing system is created. This means that any increased pressure caused by the expansion of heated water from the hot water tank or attic pipes heated by the sun has nowhere to escape. This can lead to serious consequences such as a ruptured or distorted hot water tank or a collapsed flue within the tank which can lead to the release of toxic gases, such as carbon monoxide.

A small tank, called a thermal expansion tank, is usually installed near the hot water tank. The thermal expansion tank has a built-in bladder that absorbs any excess pressure and then gradually releases it back into the plumbing system. The Uniform Plumbing Code requires all plumbing systems that are classified as “closed” systems to install thermal expansion tanks.

To ensure that your home is safe, ask a qualified plumber about thermal expansion protection.

Site Inspection and Dye Test

The inspector will inspect the site to ensure that it conforms with all Reuse Rules. The inspector will check the site for ponding, runoff, and overspray.

The dye test is conducted after the reclaimed meter and backflow prevention assembly are installed. Dye is added to the irrigation system on the customer’s side of the new reclaimed water meter. At this time, the irrigation system is not connected to the reclaimed water meter. Drinking water is used to conduct the test. The inspector will turn on each drinking water faucet. If there is dye in the water, this indicates a cross-connection. All cross-connections must be eliminated prior to the initiation of reclaimed water service.

The inspector will provide you with signs for the property and assist you in determining the locations for these signs. Replacement of worn, damaged, or lost signs is the responsibility of the customer.