



Issue Date:	May 31, 2017
Code/Section:	Phoenix City Code Chapter 37-144 (b) (35); ARS R18-4-215 A, B. 2.; The University of Southern California Foundation for Cross-Connection Control and Hydraulic Research Manual of Cross-Connection Control, Tenth Edition
Approved:	TRT
Developed By:	John Bauer, Plumbing/Mechanical Inspections Field Supervisor

Issue:

Secondary Backflow Preventer Requirements for Sites with Auxiliary Water Systems

Interpretation:

Secondary backflow prevention assemblies are required on all water service lines for sites that contain an auxiliary water system. For this Technical Guideline, an auxiliary water system includes but is not limited to wells, ponds, lagoons, cisterns, gray water, on-site treated non-potable water, rainwater and reclaimed (recycled) water.

Secondary backflow prevention assemblies are defined as those assemblies installed at the point of service delivery as required by Phoenix City Code Article XII. Backflow Prevention as described in TRT/DOC/00634 titled Backflow Preventer Location for Secondary Protection.

Arizona Revised Statute R18-4-215. Backflow Prevention requires that:

- A. *A public water system shall protect its system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. Required backflow-prevention assemblies shall be installed as close as practicable to the service connection.*
- B. *A public water system shall ensure that a backflow-prevention assembly is installed whenever any of the following occur:*
- C. *2. A source of water supply exists on the user's premises that is not accepted as an additional source by the public water system or is not approved by the Department;*

Phoenix City Code Chapter 37-144 (b) (35) states:

Requirements for new services and existing services. *An approved backflow prevention method is required for the activities or facilities listed in this paragraph that are connected to the public water system.*

Miscellaneous activities and equipment: (35) *Auxiliary water systems (air gap or RP).*

The University of Southern California Foundation for Cross-Connection Control and Hydraulic Research Manual of Cross-Connection Control, Tenth Edition defines Auxiliary Water Supply as:

Any water supply on or available to the premises other than the water purveyor's approved public potable water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source such as a well, spring, stream, harbor, etc. They may be polluted or contaminated or they may be objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

Requirements:

Any site connected to the public water supply which utilizes a well, cistern, pond, gray water, reclaimed, on-site treated or rainwater catchment system to substitute or supplement water supplied by the City of Phoenix shall be equipped with an approved air gap or reduced pressure principle backflow prevention assembly installed as close as practicable to the point of service delivery. Rainwater catchment systems do not require the secondary backflow prevention as long as any connection between the system and the potable water has the required air gap.