

CITY COUNCIL REPORT

DATE: May 5, 2015

TO: Mayor and Councilmembers

FROM: James Boyer; Industrial Waste Supervisor, Steve Camp

CC: Bradley M. Hill, Sterling Solomon, Jeff Meilbeck, Josh Copley,
Jerene Watson, Leadership Team

SUBJECT: Backflow Prevention Assembly Testing Requirements

This CCR is in response to a request by Council Member Putzova, concerning the necessity of the Backflow Prevention Assembly Program and its testing requirements, as brought to her by a concerned citizen. The Backflow Prevention Program is one of the programs administered by the Utilities Division's Regulatory Compliance - Industrial Waste Program.

Policy Issues

It seems there are several concerns to address in the e-mail received by Council Member Putzova. They have been broken down into the following issues.

- 1) Is a backflow program legitimate, or is it a "make work" program?
- 2) Is the testing frequency of backflow prevention assemblies excessive?
- 3) Where does the money go?

These concerns are addressed below.

1) A backflow program is not a "make work" program; it is a crucial element of the US EPAs Safe Drinking Water Act. Pursuant to Arizona Administrative Code (A.A.C.) R18-4-215, a public water system is required to protect its water system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. Class 1 and Class 2 fire systems are exempt from backflow program in the State rules (A.A.C. R18-4-215). Pursuant to the Arizona Revised Statutes(ARS) 41-2168.F.1 and F.2, "Class 1 fire protection system" means a fire protection system that is directly connected to a public water main and all sprinkler drains on the fire protection system discharge into the atmosphere, dry wells or other safe outlets. Class 1 fire protection system does not include a

system that has a connection with pumps, tanks, reservoirs or other water supplies, or a system that contains antifreeze or other additives. "Class 2 fire protection system" means a class 1 fire protection system with booster pumps installed in the connections from the street mains. Most residential fire sprinkler systems are class 1. However, any fire sprinkler system which uses glycol, or any other chemical additive, or has black iron, or other non-potable piping, is not exempt and does require a backflow prevention assembly and annual testing. Additionally, State rules do not apply to single-family residence fire sprinkler systems used solely for residential purposes (A.A.C. R18-4-215.C). The City can be more stringent than the State. In 2002, Flagstaff City Code was modified to require backflow assemblies on Class 1 and 2 fire systems in Section 7-03-001-0015.G.

2) Pursuant to A.A.C. R18-4-215.F, each backflow-prevention assembly shall be tested at least annually or more frequently if directed by the public water system or the Arizona Department of Environmental Quality (ADEQ). Each assembly shall also be tested after installation, relocation, or repair. Pursuant to State rules, the City cannot require less frequent testing than annual on backflow assemblies; however, ADEQ or the City can require more frequent testing.

3) In 2012, the Utilities Division streamlined the Backflow Assembly Testing Program and started to contract with Backflow Solutions Incorporated (BSI) to administer the data management tracking of nearly 3000 backflow assemblies throughout the City. BSI charges the City \$495 annually for this data management service and charges local plumbers \$12.95 to enter results from a customer's backflow assembly test into their database. Previously, this task required a full time employee, at an ongoing cost of over \$50,000/year. Additionally, Utilities used to charge all water customers a fee for backflow testing, whether or not they had a backflow on their premises. The new program assures only those requiring backflow prevention assemblies bear the compliance testing cost

RECOMMENDATION / CONCLUSION

This report is for information only.