



City of Garden Ridge Water Department

9400 Municipal Parkway
Garden Ridge, Texas 78266-2600
(210) 651-6831
Fax: (210) 651-9638

Dear Irrigation System Owner

Public drinking water systems in cities that rely on septic systems or on-site aerobic septic systems (rather than a centralized sanitary sewer system) for wastewater processing, like the City of Garden Ridge, are required to ensure that residential irrigation systems and septic systems are not cross-connected to the public drinking water system in a manner that could contaminate drinking water. (TAC, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.44, Water Distribution, (h) Backflow, siphonage, #1 - #6). Accordingly, any residential irrigation systems that is connected to the City of Garden Ridge water system must be equipped with a backflow prevention device to ensure that animal waste, fertilizers, pesticides and/or other contaminants cannot migrate through a residential irrigation system into the public drinking water supply. (2009 International Plumbing Code, Page 52, 608.16.5, Connections to lawn irrigation systems, TAC, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.44, Water Distribution, City of Garden Ridge, Ordinance # 54-022010, Section 15, Cross Connection Control Texas Administrative Code, Title 30, Part 1, Chapter 344, Subchapter E, Backflow Prevention and Cross Connection, Rule 344.50-344.52).

Effective, September 2013, TCEQ changed its regulations to preclude the use or continued use of the backflow device called a **“Double Check Valve Assembly (DC)”** on any residential irrigation systems that are connected to a public water supply. The changes were intended to reduce the possibility that health-hazards such as animal waste, fertilizers, pesticides, and/or other contaminants that could spread disease, cause illness, or death could migrate into a public water supply. (2009 International Plumbing Code, Page 52, 608.16.5, Connections to lawn irrigation systems, TAC, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.44, Water Distribution, City of Garden Ridge, Ordinance # 54-022010, Section 15, Cross Connection Control Texas Administrative Code, Title 30, Part 1, Chapter 344, Subchapter E, Backflow Prevention and Cross Connection, Rule 344.50-344.52). Accordingly all irrigation systems that are connected to the City of Garden Ridge water system **must** have an approved **Reduced-Pressure Principle Backflow Prevention Assembly (RPZ)** installed. (2009 International Plumbing Code, Page 52, 608.16.5, Connections to lawn irrigation systems, TAC, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.44, Water Distribution, City of Garden Ridge, Ordinance # 54-022010, Section 15, Cross Connection Control, Texas Administrative Code, Title 30, Part 1, Chapter 344, Subchapter E, Backflow Prevention and Cross Connection, Rule 344.50-344.52).

Unfortunately, TCEQ’s rules do not allow for existing DC devices to be “grandfathered” even where they have been installed on an existing irrigation system. Homeowners who have an irrigation system with an existing **DC** device **MUST** have it replaced with a **RPZ** device by June 1, 2014 The inspection/testing requirement for **ALL** backflow devices is upon **installation and annually thereafter.** (2009 International Plumbing Code, Page 52, 608.16.5, Connections to lawn irrigation systems, TAC, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.44, Water Distribution, City of Garden Ridge, Ordinance # 54-022010, Section 15, Cross Connection Control, Texas Administrative Code, Title 30, Part 1, Chapter 344, Subchapter E, Backflow Prevention and Cross Connection, Rule 344.50-344.52).

It is important that there **MUST be a minimum of 12” + Diameter of pipe** below the drain opening to **FINAL GRADE.** All RPZ devices **Must** be installed to ensure that the lowest drain opening on the RPZ device is a minimum of 12” + Diameter of the connecting pipe above grade. For example, if you have a 1 inch pipe, the drain on the RPZ must be installed at least 13 inches above grade at the site where the RPZ is installed. Please remind your licensed installer of this requirement. **Only a Licensed Plumber or a Licensed Irrigator may install a**

backflow device and only a Licensed Backflow Tester can test a backflow device. (Texas Administrative Code, Title 30, Part 1, Chapter 344, Subchapter E, Backflow Prevention and Cross Connection, Rule 344.50-344.52). In addition, all out of ground piping for backflow prevention devices and the backflow prevention device itself should be winterized for protection from freezing during the winter months.

Requirements for Reduced-Pressure Backflow Prevention Assembly devices can be found in the following references:

- 1) Texas Administrative Code, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.38, Definitions, #31, Health Hazard, Effective November 2012.
- 2) Texas Administrative Code, Title 30, Part 1, Chapter 290, Subchapter D, Rule 290.44, Water Distribution, (h) Backflow, siphonage, #1 - #6. Effective September 12, 2013.
- 3) Texas Administrative Code, Title 30, Part 1, Chapter 344, Subchapter E, Backflow Prevention and Cross Connection, Rule 344.50-344.52
- 4) City of Garden Ridge Ordinance # 54-022010, Section 15, Cross Connection Control
- 5) 2009 International Residential Code, Volume II, Page 29-11, P2902.5.3 Lawn irrigation systems.
- 6) 2009 International Plumbing Code, Page 52, 608.16.5 Connections to lawn irrigation systems.
- 7) AWWA Manual of Water Supply Practices M-14, Third Edition, Page 70, Irrigation Systems, Protection Recommended.
- 8) A current List of Approved Backflow Prevention Assemblies can be found on the Foundation for Cross-Connection Control and Hydraulic Research website: fccchr.usc.edu

If you have any questions please call the Water Department at (210) 651-6831

Respectfully



Royce E. Goddard

Water Department Manager