



ARTICLE 13.11 RAINWATER HARVESTING SYSTEMS

Sec. 13.11.001 Definitions

The following terms, phrases and words shall have the meaning given in this section. The words shall and will are always mandatory:

Air gap. A complete physical separation between the free flowing discharge end of a potable water supply pipeline and an approved storage tank.

Approved storage tank. Any tank, cistern, rain barrel, or container used to collect harvested rainwater must be approved by the appropriate subdivision architectural control committee and the city.

Backflow prevention. The mechanical prevention of reverse flow, or back siphonage, of nonpotable water from an irrigation system into the potable water source.

Backflow prevention assembly. Any assembly used to prevent backflow into a potable water system. The type of assembly used is based on the existing or potential degree of health hazard and backflow condition.

Catchment surface. The collection surface from which rainfall runs off.

Debris. Any visible contaminant including leaves and twigs, dust and dirt, bird and animal droppings, insects, and other visible material.

Debris excluder. Any screening component such as a first-flush diverter, leaf screen, roof washer, or other similar device that is designed to prevent debris and sediment from entering the storage tank of a rainwater harvesting system.

Nonpotable water. Untreated water that is unsafe for human consumption.

Potable water. Water that is suitable for human consumption.

Rainwater harvesting system. Any system used for the capture, storage, and distribution of untreated rainwater from a rooftop catchment surface or from precipitation captured directly from the sky to be used for outdoor landscape irrigation or foundation watering and consisting of the components described in [section 13.11.006\(5\)](#) herein.

Reduced pressure principle backflow prevention assembly. An assembly containing two independently acting, approved check valves together with a hydraulically operating mechanically independent pressure differential relief valve located between the two check valves and below the first check valve.

Sec. 13.11.002 Permits required

(a) Regardless of size, all rainwater harvesting systems are subject to the requirements for storage tank compliance described herein; however, no permit shall be required for a rainwater harvesting system that conveys water to an aboveground storage tank, such as a rain barrel, for gravity flow (hose flow) irrigation distribution only, if the system consists of one or more storage tanks that



ARTICLE 13.11 RAINWATER HARVESTING SYSTEMS

cumulatively hold 400 gallons or less in volume. Each owner of a rainwater harvesting system that meets these requirements shall register each system with the utilities water conservation inspector.

(b) It shall be unlawful for any person to construct or install a rainwater harvesting system without having first obtained a permit from the utilities department if:

(1) The system consists of one or more storage tanks that cumulatively hold 400 gallons or more in volume.

(2) The systems including a connection to an irrigation system using potable water.

(c) Adequate plans and specifications, as determined by the utilities water conservation inspector, must accompany each application for a permit.

Sec. 13.11.003 Valid license required

(a) Any person who connects a rainwater harvesting system to the water supply within the city must hold a valid irrigator's license, as defined by Title 30, Texas Administrative Code, chapter 30, and required by V.T.C.A., Occupations Code chapter 1903, or as defined by chapter 365, Title 22 of the Texas Administrative Code, and required by V.T.C.A., Occupations Code chapter 1301.

(b) A property owner is not required to be licensed in accordance with V.T.C.A., Occupations Code, Title 12, section 1903.002(c)(1) if he or she is performing irrigation work in a building or on a premises owned or occupied by the person as the person's home. A home or property owner who installs an irrigation system must meet the standards contained in Title 30, Texas Administrative Code, chapter 344 regarding spacing, water pressure, spraying water over impervious materials, rain or moisture shutoff devices or other technology, backflow prevention and isolation valves. The city may, at any point, adopt more stringent requirements for a home or property owner who installs an irrigation system. See V.T.C.A., Occupations Code section 1903.002 for other exemptions to the licensing requirement.

Sec. 13.11.004 Inspection and fee

It shall be the duty of the city's utilities department to inspect all rainwater harvesting systems which require a permit to determine that they are in compliance with this article. For such inspection and the issuance of the permit, a fee, as provided for in the fee schedule found in the appendix of this code, shall be paid to the city's utilities department prior to the issuance of such permit. Registration of a system under 400 gallons is at no cost to the applicant.

Sec. 13.11.005 Construction and maintenance requirements

All rainwater harvesting systems shall be constructed and maintained in accordance with the following requirements:

(1) Compliance with state and federal law is the responsibility of the producer, provider, and user of such installations.



ARTICLE 13.11 RAINWATER HARVESTING SYSTEMS

- (2) In addition to the requirements of this division, all rainwater harvesting systems must be in compliance with any applicable city building code.
- (3) All approved rainwater harvesting systems must be constructed and installed as per the specifications of the manufacturer of that particular system. A copy of these specifications must be submitted to the city's utilities department along with the permit application.
- (4) Any rainwater harvesting system that is connected to the city's potable water system must have a reduced pressure zone backflow preventer installed or an approved air gap method utilized to prevent backflow to the residence and the city's water distribution system.

Sec. 13.11.006 Restrictions and limitations

All rainwater harvesting systems constructed and maintained under the provisions of this article shall be subject to the following restrictions and limitations:

- (1) Allowable uses. Allowable uses of rainwater harvesting systems shall be restricted to nonpotable, outdoor irrigation and foundation watering only. Systems supplied or supplemented by a water source not specified herein or used for any purpose other than irrigation shall be prohibited.
- (2) Limited service area. The rainwater harvesting system shall serve only the lot upon which it is located.
- (3) Connection to the potable irrigation water supply. Connection of more than one water source to an irrigation system presents the potential for contamination of the potable water supply if backflow occurs. Therefore, connection of any additional water source to an irrigation system that is connected to the potable water supply shall be permitted only if the irrigation system is connected to the potable water supply through a reduced-pressure principle backflow prevention (RPZ) assembly or an approved air gap method. RPZ assemblies must be tested annually and test records must be submitted to the city within 30 days of test date.
 - (A) If the irrigation system water source is solely from Lake LBJ with no connection to a city's potable water supply, no RPZ or air gap method is required between the rain barrel and the irrigation system.
- (4) Setbacks. Rainwater harvesting systems shall meet the following setback requirements:
 - (A) Front. No rainwater harvesting system or any component thereof shall be located in front of the building structure.
 - (B) Side or rear. No component of a rain barrel system shall be more than 5 feet from the building structure.



ARTICLE 13.11 RAINWATER HARVESTING SYSTEMS

- (5) Components. Regardless of its complexity, a rainwater harvesting system shall be comprised of the following components:
- (A) Catchment surface from which rainwater is collected. Rooftops are the only allowable catchment surface.
 - (B) Gutters and downspouts that channel water from the roof catchment surface to the tank.
 - (C) The rainwater catchment conveyance system shall be equipped with a debris excluder or other approved means to prevent the accumulation of leaves, needles, other debris and sediment from entering the storage tank. Devices and methods used to remove debris or sediment shall be accessible and sized and installed in accordance with manufacturer's installation instructions.
 - (D) No more than two approved storage tanks.
 - (E) A delivery system, either gravity fed or pumped to the end use.
- (6) Approved storage tanks. Regardless of the size or complexity of storage tanks, the following provisions are required to prevent public health hazards and nuisances:
- (A) Storage tanks must be opaque.
 - (B) Storage tanks must never have been used to store hazardous materials.
 - (C) Storage tanks must be covered and vents screened to prevent mosquito breeding.
 - (D) Storage tanks must be accessible for cleaning and repair
 - (E) Storage tank access openings exceeding 12 inches (305 mm) in diameter shall be secured to prevent tampering and unintended entry by either a lockable device or other approved method.
 - (F) Storage tanks are required to have an overflow port.
 - (G) Storage tanks should be placed on a stable, level surface and it must be capable of holding the maximum possible weight when full.
 - (H) Above ground storage tanks shall be no more than 6 feet in height.
- (7) Rainwater identification. Storage tanks must be labeled "RAINWATER – DO NOT DRINK," "NONPOTABLE WATER – DO NOT DRINK," or with a similar phrase that clearly indicates that the water contained within is not suitable for human consumption.
- (8) Location of system. A rainwater harvesting system may be installed in the side or rear yard of any commercial or residential property in all zones.
- (9) Maintenance. Any rainwater harvesting system, permitted or unpermitted shall:



ARTICLE 13.11 RAINWATER HARVESTING SYSTEMS

- (A) Not remain in a condition so as to create a public health hazard or a nuisance to the general public;
 - (B) Be maintained as required to keep the system functioning as designed;
 - (C) Be maintained so as to prevent the accumulation of unwholesome, stagnant, or offensive water;
 - (D) Be maintained so as to prevent the attraction or breeding of mosquitoes or other undesirable pests;
 - (E) Not be used for the storage of anything other than water or for anything other than its intended purpose as a rainwater harvesting system;
- (10) Abandonment. When a rainwater harvesting system is abandoned, all components must be removed.
- (11) Exceptions. No deviation from the height, setback or any other requirements specified herein shall be permitted unless allowed by the city council.

Sec. 13.11.007 Penalty

- (a) Civil and criminal penalties. The city shall have the power to administer and enforce the provisions of this article as may be required by governing law. Any person violating any provision of this article is subject to suit for injunctive relief as well as prosecution for criminal violations. Any violation of this article is hereby declared to be a nuisance.
- (b) Criminal prosecution. Any person violating any provision of this article shall, upon conviction, be fined a sum not exceeding five hundred dollars (\$500.00), except as may be otherwise expressly provided herein or by state law. Each day that a provision of this article is violated shall constitute a separate offense. An offense under this article is a misdemeanor.
- (c) Civil remedies. Nothing in this article shall be construed as a waiver of the city's right to bring a civil action to enforce the provisions of this article and to seek remedies as allowed by law, including, but not limited to the following:
- (1) Injunctive relief to prevent specific conduct that violates this article or to require specific conduct that is necessary for compliance with this article;
 - (2) A civil penalty up to two thousand dollars (\$2,000.00) a day when it is shown that the defendant was actually notified of the provisions of this article and after receiving notice committed acts in violation of this article or failed to take action necessary for compliance with this article; and
 - (3) Other available relief.

(Ordinance 14-07-08B adopted 7/8/14)