Topic: Water Conservation; Landscaping

Resource Type:RegulationsState:ArizonaJurisdiction Type:Municipal

Municipality: Town of Gilbert

Year (adopted, written, etc.): 2000

Community Type – applicable to: Suburban; Rural

Title: Town of Gilbert Water Conservation

Ordinance

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Abstract

The Town of Gilberts Water Conservation Ordinance was designed to reduce the amount of water used in residential and nonresidential development. The ordinance limits water intensive landscaping, limits high evaporative loss features and requires efficient irrigation systems for all new development projects.

Resource

Town of Gilbert Water Conservation Ordinance ARTICLE VIII WATER CONSERVATION ORDINANCE NO. 1316 November 28 2000

DIVISION 1 GENERALLY

Sec. 66-341 Definitions

"Active recreational area" means an area which measures a minimum of 10,000 square feet and at least 100 feet long by 100 feet wide.

"common area" means areas in a development designated for common use, but not including active recreational areas in developments which are at least 10,000 square feet in area and at least 100 feet long and 100 feet wide.

"Development" includes residential subdivisions and non-residential facilities and projects. "Efficient irrigation system" means a system that delivers water in sufficient supply to meet the plants' water consumption requirements, directly to the plant material without causing loss of water due to surface runoff, excessive infiltration, or excessive evaporation.

"New development" shall mean a development that receives zoning approval after the effective date of this ordinance.

"Landscapable area" does not include active recreational areas which are at least 10,000 square feet in area and at least 100 feet long and 100 feet wide.

"Low water use landscaping" means plants listed in the phoenix active management area's third management plan low water use plant list or any modification to said list.

"Non per capita conservation program" or "NPCCP" means the water conservation program described in the stipulation and order for regulation under non per capita conservation program dated July 25, 2000.

"Turf" means a surface layer of earth containing regularly mowed grass, with its roots. Turf includes but is not limited to annual and perennial rye grass, fescue, all types and hybrid Bermuda, and azoic.

"turf-related facilities" means a school, park, cemetery, golf course, industrial park or common area of a housing development that applies water from any source, including effluent, to ten or more acres of land for turf-related watering purposes.

"Water conservation officer" means the person designated by the public works director to implement the NPCCP.

"Water feature" means pools, ponds, fountains, streams, waterfalls, swimming pools and other artificial water structures.

"water-intensive landscaped area" means

- (1) an area of land that is watered with a permanent water application system and planted primarily with plants not listed in the phoenix active management area third management plan low water use plant list or any modifications to the list; and
- (2) for new non-residential developments, the total surface area of all bodies of water filled or refilled with water from any source, including reclaimed water, that are an integral part of the landscaped area. Bodies of water used primarily for swimming purposes are not an integral part of a landscaped area; and
- (3) For new residential developments, including model homes, the total surface area of all water features filled or refilled with water from any source.

Sec. 66-342 water conservation officer.

The director of public works shall designate a water conservation officer whose duties it shall be to implement the non per capita conservation program.

Sec. 66-343 enforcement

The code enforcement officer shall enforce the provisions of this article.

Sec. 66-344 prohibition on certain covenants, conditions and restrictions

It shall be unlawful for covenants, conditions and restrictions of a new development to require the use of water-intensive landscaping or prohibit low water use landscaping. Nothing in this section shall prohibit individuals from using water intensive landscaping.

Sec. 66-345 limitations on new water features

- (a) The spray from a water feature installed, erected or constructed by a new development, shall be limited to six feet in height from the base of the water column. This prohibition shall not apply to any water feature which injects or drops water into the air solely for the purpose of cooling a confined air space.
- (b) Water features shall comply with the following requirements:
- (1) A permit to install, erect or construct the water feature shall be obtained from the building and code enforcement officer. Such permit shall only be issued if the water feature complies with the requirements of this section.

- (2) The water feature shall be designed with catch basins that will maximize the amount of water recycled and minimize make up water. Water features which over spray shall be equipped with wind shut-off valves.
- (3) The water feature shall be designed to use water equipment that will minimize leakage throughout the life of the water feature.
- (4) The water feature shall reuse filtered backwash in a manner beneficial to surrounding plant material and landscaped areas
- (5) The water feature shall be operational only during normal business hours and shall be equipped with an automatic timer and a recirculating pump.

Secs. 66-346 - 66-361. Reserved

Division 2 residential developments

Sec. 66-362. Landscaping in new single family and multi family developments

- (a) Except as provided in subsection (b), the amount of water-intensive landscaping in common areas of new single family and multi-family developments shall not exceed 10% of the total landscapable area. If reclaimed water is used on such common areas, the town's reclaimed water incentive rate shall be charged.
- (b) If reclaimed water is used on common areas, the amount of water-intensive landscaping may increase to 50% of the total landscapable area. The town's standard reclaimed water use rate shall be charged.
- (c) The amount of reclaimed water available to a development shall be based on availability but in no event shall be greater than three times the amount of calculated sewage output of the development at buildout, less 15%.
- (d) Turf shall be prohibited in all rights-of-way, whether or not reclaimed water is used to irrigate such turf. As used in this subsection, "right-of-way" does not include (1) landscape easements on private lots and (2) active recreational areas contiguous to rights-of-way so long as the active recreational area is at least 10,000 square feet in area and at least 100 feet long and 100 feet wide.
- (e) Only low water use plants may be used in the remaining landscapable area of the common area.
- (f) All irrigation systems must be efficient irrigation systems.

Sec. 66-363 model homes in new residential developments

- (a) The combined turf and water surfaces of all water features of model homes in new single-family developments shall not exceed twenty percent (20%) of the landscapable area.
- (b) Water intensive landscaping shall be located only where it is functionally useful, such as in play areas or close to the house for energy efficiency.
- (c) All other plant material used in landscapable areas must be low water use plants.
- (d) All irrigation systems must be efficient irrigation systems.
- (e) Developers of new developments shall provide to homebuyers an information package on low water use landscaping obtained from the town's water conservation officer. In addition, model homes shall have landscaping and irrigation plans approved by the planning department prior to issuance of building permits, for which no variance may be granted, and which meet the aforementioned requirements.

Sec. 66-464 - 66-470 reserved.

Division 3 non-residential developments

Sec. 66-471 water use plans

- (a) New non-residential developers, except turf-related facilities, who have an estimated annual use that averages nine thousand (9,000) gallons per day or more are required to submit a "water use plan" as a condition to issuance of a building permit. The "water use plan" shall contain at least the following:
- (1) A description of any available water conservation training programs offered to employees.
- (2) Whether alternative water sources will be used. Alternative water sources include reclaimed water, poor quality groundwater or other non-groundwater sources.
- (3) Operating levels of total dissolved solids (tds) or conductivity for cooling towers and total cooling capacity, as well as blow down frequencies
- (4) How the facility will use the best available conservation technologies in accordance with existing process uses. Examples include recirculating systems for process water, alternative dust control methods, and automatic shut-down devices to eliminate continuous running water.
- (5) Any plans for the reuse of wastewater or process water at the facility.
- (6) Description of landscaping and irrigation system for the facility.
- (b) if a new nonresidential customer is supplied water that did not have an estimated annual water demand of ten (10) acre-feet (3,258,500 gallons) or more at the time the town commenced service of water to the customer, and that did not submit a conservation plan at that time, registers an annual water use of ten (10) acre-feet or more of water supplied by the town after the first full calendar year of operation or in a subsequent calendar year, the town shall notify the customer in writing that the customer shall, before July 1 of the following calendar year, submit to the town a water conservation plan as described above.
- (c) the town shall terminate water service to the nonresidential customer unless the customer submits, within 120 days after receiving the written notification, a water conservation plan demonstrating the use of the latest commercially available conservation technologies for both interior and exterior water use consistent with reasonable economic return.

Sec. 66-472 landscaping in non-residential developments

The following types of developments shall be subject to the following stipulations for their total landscapable area:

- (a) For all developments, except hotels and motels, the water intensive landscaped area shall not exceed an area calculated by adding 10,000 square feet plus 20 percent of the facility's landscapable area in excess of 10,000 square feet (excluding active recreational areas which must measure at least 100 feet on a side and a minimum of 10,000 square feet). If the area of the lot is 10,000 square feet or less, the water intensive landscaping shall be limited to an area equal to 10 percent or less of the total lot area.
- (b) For hotels and motels, the water intensive landscaped area within the facility shall not exceed an area calculated by adding 20,000 square feet plus 20 percent of the facility's landscapable area in excess of 20,000 square feet (excluding active recreational areas). If the

area of the lot is 20,000 square feet or less, the water intensive landscaping shall be limited to an area equal to 10 percent or less of the total lot area.

- (c) Developments that do not exceed the above described maximum percent of total landscapable area in water intensive landscape and which make use of reclaimed water will be charged the reclaimed water incentive rate. Developments that utilize reclaimed water can increase the percentage of water intensive landscape in the landscapable areas up to 50% and pay the standard reclaimed water use rate.
- (d) Only low water use plants may be used in the remaining landscapable area.
- (e) Schools, parks, cemeteries, golf courses, common areas of housing developments, and public recreational facilities with water intensive landscaping areas greater than or equal to 10 acres, are exempt from this provision, and shall be governed by the state regulated program for "turf facilities".
- (F) ALL IRRIGATION SYSTEMS MUST BE EFFICIENT IRRIGATION SYSTEMS.

State Enabling Statute:

Arizona Administrative Code, Title 12. Chapter 15. Natural Resources, Article 7. Assured and Adequate Water supply (R12-15-701-R12-15-725)

Reference:

Karen Young (Water Conservation Coordinator, Town of Gilbert) Personal Communication; email to author. 31 March. 2003.

Arizona Department of Water Resources. 2001. Assured Water Supply Program.

http://www.water.az.gov/adwr/Content/Forms/Files/AssuredWater Supply/awsbrochure.pdf

Interview/email notes:

The law is designed to reduce the amount of water used by both the residential and non residential sector inside and outside. It has been controversial in that new developments coming into the Town are somewhat resistant to limiting their water intensive landscape. Still under the mindset that green is better. The only time spent on enforcement is via the planning department at the onset of plans. When a development wants to build and they submit their plans, I review them to make sure their landscaping is in compliance with the law. This is time consuming as they continue to rework their plans to comply with the law. The only real expense is in salary.

The idea came from the state of Arizona. It's not really an idea but more a part of our State Managed Water Supply Rules under the Groundwater Management Act of 1980. If a city or town is not meeting their gallons per capita per day requirement as deemed by the state, then that municipal will fall under the Non Per Capita Program. That's what happened here. Both Town officials and the State agreed to this and signed stipulations accordingly.

The Non Per Capita Program is about the most prominent with regards to water conservation. There are other environmental laws such as those dealing with water theft, water waste, stormwater runoff, air quality, etc, We attempted to pass a water waste

ordinance but it was shot down at Council and as for the water theft ordinance, we were successful in getting that passed. I am not familiar with any of the laws regarding areas other than water.

I believe there is one group working to pass legislation on hot water recirculation systems in new housing developments, and one that is working on the side load washing machines. I don't have much more information than that. Again, there may be some working with other environmental issues but I am not aware of any.