# Appendix B

# Landscape Water Conservation Ordinances

Public ordinances are intended to promote health, safety and general welfare. Ordinances that regulate landscape water conservation must take into account a wide variety of city- or site-specific considerations because what may be essential in one area may be impractical or dangerous in another.

The following major points are recommended for inclusion in all landscape water-conservation ordinances, subject to refinement as called for by location.

## **FINDINGS OF FACT**

**WHEREAS**, the (city/county of \_\_\_\_\_) recognizes the need to protect and preserve water as a natural resource through the application of enhanced landscape practices; and

**WHEREAS**, the (city/county of \_\_\_\_\_) recognizes the need to encourage the quality of life, the freedom of choice and the emotional and economic values resulting from individually owned and public enhanced landscapes; and

**WHEREAS**, all residents of the (city/county of \_\_\_\_\_\_) enjoy an unalienable right to artistic expression and personal choice within the bounds of public health, safety and general welfare; and the value of a given plant shall not be determined solely by its need for or consumption of water; and

**WHEREAS**, landscape water conservation reduces energy expenditures in the individual landscape, thereby lessening community energy expenditures for water pumping and treatment, and

**WHEREAS**, properly designed and maintained landscapes reduce urban heat islands and residential energy consumption required for air conditioning, and

**WHEREAS**, the (city/county of \_\_\_\_\_) recognizes that there is no universal answer to all landscape water-management or conservation issues,

**THEREFORE**, landscape water conservation solutions shall be based on site-specific determinants, incorporating both initial establishment and continuous, long-term considerations.

#### **PURPOSE AND INTENT**

The purpose of these regulations is to establish minimum standards for the development, installation and maintenance of landscaped areas without inhibiting creative landscape design. Implementation will aid in improving environmental quality and the aesthetic appearance of public, commercial, industrial and residential areas. It is the intent of this ordinance, therefore, that the establishment of these minimum requirements and the encouragement of resourceful planning be incorporated to promote the public health, safety and general welfare in the areas of water conservation and quality preservation.

#### **GENERAL PROVISIONS**

#### A. Planning and Design

- 1. Water budgets (allocations) shall be established based on the area's climate and size of the property, with the maximum water allowance of 100 percent of the area's reference evapotranspiration (ET). Site owners shall have full and exclusive authority and responsibility to balance the design, installation and maintenance of their landscapes within this designated amount of water.
- 2. Topography, grading and guttering shall, to the maximum extent feasible, incorporate the concept of "water harvesting." This results in the greatest possible use by landscape plants of natural precipitation (rainfall or snowmelt) while minimizing the rapid movement (runoff) of this or other moisture into a stormwater drainage system.
- **3.** Fire protection shall be addressed by giving preference to irrigated grass areas. The use of plants whose growth habits encourage or fuel fires shall be discouraged.

- **4.** The use of **grassy buffers** shall be encouraged for lands adjacent to or contiguous with open waterways or known groundwater recharge areas. Such buffers slow erosion and cleanse runoff as it passes through the blades and dense, fine root structure of grass.
- 5. Impermeable and covered surfaces of not more than \_\_\_\_\_ percent (\_\_\_%) of the total lot area may be incorporated into the design.
- 6. Plant selection and grouping choices shall include consideration for adaptability to climatic, geologic and topographic conditions of the site.
  - a. Plants with the same known water-use rates may be grouped to facilitate water-use efficiency.
  - b. Groupings of plants within the same drip line of large shrubs and trees should have water requirements similar to each other and the shrubs/trees because water will be shared by all of the plants in the group.
  - c. There shall be no restrictions or limitations on the suitability of any type of landscape plants except those specifically prohibited by noxious-weed or invasive-species laws of this or a superior jurisdiction.
- 7. Water features (such as pools and spas), because of their high potential for evaporative water loss, shall utilize recirculating water exclusively.

The year-round use of **pool and spa covers** shall be strongly encouraged.

## B. Soil Testing and Modification

- **1. Soil testing** shall be strongly encouraged to determine the type(s) of both the existing soil and the amendments that would be as favorable to landscape water conservation as possible.
- 2. Based upon test findings, **soil amendments** will be added to the site to the greatest extent possible prior to planting.

## C. Irrigation System Design, Installation and Maintenance

- 1. Soil types and infiltration rates shall be given primary consideration when designing irrigation systems. All irrigation systems shall be designed, installed and maintained to avoid runoff, low head drainage, overspray or similar conditions in which water flows onto adjacent property, non-irrigated areas or hard surfaces such as walks, roadways, driveways and patios.
- 2. Proper irrigation equipment and schedules including features such as repeat cycles, rain-sensing override devices, soil-moisture sensing devices and evapotranspiration (ET) rate-signaling controllers shall be used to the maximum extent possible to match application rates to infiltration rates so runoff will be minimized.
- **3. Outdoor water-use measurement** shall be strenuously encouraged through the use of separate meters, hose-end meters, timers or other accurate devices.
- 4. Recycled water use shall be encouraged to the greatest extent possible.
- 5. The practice of water harvesting shall be encouraged to the greatest extent possible.
- 6. Landscape-irrigation audits shall be required for all properties of one acre or larger at least once every five years.

(Note: We would like to acknowledge that concepts and specific language have been extracted in full or in part from "A Water-Efficient Landscaping Guide for Local Governments, 2nd edition," prepared by the St. Johns River, Southwest Florida and South Florida Water Management Districts; and the "Model Water Efficient Landscape Ordinance" of the California Code of Regulations.)

# Principles of Efficient Landscape Water Management

Turfgrass Producers International (TPI) is a major partner of the green industy and is also dedicated to environmental concerns. They recognize both the global need to use water efficiently *and* the benefits of public and private green spaces. Through research, education and proper management, they believe that based on the following landscape water management principles 21<sup>st</sup> century landscapes can be increasingly water-efficient and meet the needs of the public and the environment alike.

■ Turfgrass is one of many important components of the landscape, providing numerous benefits and values to our quality of life, our environment and our eco-system.

■ The green industry in general and the turf industry in particular, play significant environmental and economic roles on the local and global levels.

There is no universal answer to all landscape water-management issues. Solutions need to be based on site-specific determinants, incorporating both initial establishment and continuous, long-term considerations.

Efforts to develop and implement any narrowly focused water-conservation solutions can prove problematic.

■ Efficient use of water use can be realized only through implementation of the combined best-management practices of the soil, plant, irrigation, landscape-maintenance and land-scape-design sciences.

■ Actual water requirements of all landscape materials must be determined by means of objective and verifiable scientific processes, which in turn enable educated and environmentally sound landscape decisions.

■ Technological synergies, evolving from green-industry professionals and scientists will continue to expand and improve water-resource development, delivery, use and efficiency.

■ The public will take actions that simultaneously conserve water and improve the environment when properly informed of and motivated by the best available scientific knowledge and technology.

The basic right of individual artistic expression in the landscape and the value of a given plant is not solely determined by its need for and/or consumption of water.

■ Public policy should encourage the quality of life, the freedom of choice, and the emotional and economic values resulting from individually owned and public landscapes.