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WATER CONSERVATION ORDINANCE

Sec. 41-1500. Purpose.

- (a) The State Legislature has found that:
- (1) The waters of the State are of limited supply and are subject to ever increasing demands.
 - (2) The continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future uses.
 - (3) It is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource.
 - (4) Landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development.
 - (5) Landscape design, installation, maintenance, and management can and should be water efficient.
 - (6) Article X Section 2 of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served, and the right does not and shall not extend to waste or unreasonable method of use of water.

Sec. 41-1501. Applicability.

- (a) Beginning January 1, 2010, all planting, irrigation, and landscape-related improvements required by this Article shall apply to the following *landscape projects*:
- (1) New landscape installations or landscape rehabilitation projects by public agencies or private non-residential developers, except for cemeteries, with a *landscaped area*, including pools or other *water features* but excluding hardscape, equal to or greater than 2,500 square feet, and which are otherwise subject to a discretionary approval of a landscape plan or which otherwise require a ministerial *permit* for a landscape or *water feature*.
 - (2) New landscape installations or landscape rehabilitation projects by developers or property managers of single-family and multi-family residential projects or complexes with a landscaped area, including pools or other *water features* but excluding hardscape, equal to or greater than 2,500 square feet, and which are otherwise subject to a discretionary approval of a landscape plan, or which otherwise require a ministerial *permit* for a landscape or *water feature*.
 - (3) New landscape installation projects by individual homeowners on single-family or multi-family residential lots with a total project landscaped area, including pools or other *water features* but excluding hardscape, equal to or greater than 5,000 square feet, and which are otherwise subject to a discretionary approval of a landscape plan, or which otherwise require a ministerial *permit* for a landscape or *water feature*.

- (4) A landscape rehabilitation project is subject to the requirements of this Article where (i) the modified landscaped area is greater than 2,500 square feet and represents at least 50% of the total landscaped area; and (ii) the modifications are planned to occur within one year. The requirements of the Standards may be partially or wholly waived, at the discretion of the city, for landscape rehabilitation projects that are limited to replacement plantings with equal or lower water needs and where the irrigation system is found to be designed, operable and programmed consistent with minimizing water waste in accordance with local water purveyor regulations.
- (b) This Article does not apply to:
- (1) Registered local, state, or federal historical sites or other sites exempted by applicable federal or state law.
 - (2) *Ecological restoration projects* that do not require a permanent irrigation system.
 - (3) *Mined-land reclamation projects* that do not require a permanent irrigation system.
 - (4) Plant collections, as part of botanical gardens and arboretums open to the public.

Sec. 41-1502. Implementation Procedures.

- (a) Prior to installation, a *Landscape Documentation Package* shall be submitted to the City for review and approval of all *landscape projects* subject to the provisions of this Article. Any *Landscape Documentation Package* submitted to the City shall comply with the provisions of the *Standards*.
- (b) The *Landscape Documentation Package* shall include a certification by a professional appropriately licensed in the State of California stating that the landscape design and water use calculations have been prepared by or under the supervision of the licensed professional and are certified to be in compliance with the provisions of this Article and the *Standards*.
 - (1) Landscape and irrigation plans shall be submitted to the City for review and approval with appropriate water use calculations.
 - (2) Water use calculations shall be consistent with calculations contained in the *Standards* and shall be provided to the City under procedures determined by the City.
 - (3) Verification of compliance of the landscape installation with the approved plans shall be obtained through a *Certification of Completion* in conjunction with a Certificate Occupancy, Permit Final or Notice of Completion process, as provided in the *Standards*.

Sec 41-1503. Landscape Water Use Standards.

- (a) For applicable landscape installation or rehabilitation projects subject to Section 41-1501(a) of this Code, the *Estimated Applied Water Use* allowed for the *landscaped area* shall not exceed the *MAWA* calculated using an *ET adjustment factor* of 0.7, except for *special landscaped areas* where the *MAWA* is calculated using an *ET adjustment factor* of 1.0; or the design of the *landscaped area* shall otherwise be shown to be equivalently water-efficient in a manner acceptable to the City; as provided in the *Standards*.

- (b) Irrigation of all *landscaped areas* shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives for water conservation and water waste prevention as determined and implemented by the City.

Sec. 41-1504. Definitions. The following definitions are applicable to this article:

“*Applied water*” means the portion of water supplied by the irrigation system to the landscape.

“*Budget-based tiered-rate structure*” means tiered or block rates for irrigation accounts charged by the retail water agency in which the block definition for each customer is derived from lot size or irrigated area and the evapotranspiration requirements of landscaping.

“*Ecological restoration project*” means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

“*Estimated Applied Water Use*” means the average annual total amount of water estimated to be necessary to keep plants in a healthy state, calculated as provided in the *Standards*. It is based on the *reference evapotranspiration rate*, the size of the landscape area, *plant water use factors*, and the relative *irrigation efficiency* of the irrigation system.

“*ET adjustment factor*” or “*ETAF*” is equal to the *plant factor* divided by the *irrigation efficiency factor* for a landscape project, as described in the *Standards*. The *ETAF* is calculated in the context of local *reference evapotranspiration*, using site-specific *plant factors* and irrigation efficiency factors that influence the amount of water that needs to be applied to the specific *landscaped area*. A combined plant mix with site-wide average *plant factor* of 0.5 (indicating a moderate water need) and average *irrigation efficiency* of 0.71 produces an ET adjustment factor of $(0.7) = (0.5/0.71)$, which is the standard of water use efficiency generally required by this Article and the *Standards*, except that the *ETAF* for a *special landscape area* shall not exceed 1.0.

“*Standards*” refers to the Standards for Implementation of this Article, as adopted by the City, which describes procedures, calculations, and requirements for *landscape projects* subject to this Article.

“*Hardscapes*” means any durable material or feature (*pervious* and *non-pervious*) installed in or around a *landscaped area*, such as pavements or walls. Pools and other *water features* are considered part of the *landscaped area* and not considered hardscapes for purposes of this Article.

“*Homeowner installed landscape*” means any landscaping either installed by a private individual for a single family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for purposes of this Article, is a person who occupies the dwelling he or she owns. This definition excludes speculative homes, which are not owner-occupied dwellings and which are subject under this Article to the requirements applicable to developer-installed residential landscape projects.

“*Irrigation efficiency*” means the measurement of the amount of water beneficially used divided by the amount of water applied. *Irrigation efficiency* is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average *irrigation efficiency* for purposes of this Article is 0.71. Greater *irrigation efficiency* can be expected from well designed and maintained systems.

“*Landscaped area*” means all the planting areas, *turf* areas, and *water features* in a landscape design plan subject to the *Maximum Applied Water Allowance* and *Estimated Applied Water Use* calculations. The *landscaped area* does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other *pervious* or *non-pervious* hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

“*Landscape contractor*” means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

“*Landscape Documentation Package*” means the documents required to be provided to the City for review and approval of landscape design projects, as described in the *Standards*.

“*Landscape project*” means total area of landscape in a project, as provided in the definition of “*landscaped area*,” meeting the requirements under Section 41-1501 of this Code.

“*Local water purveyor*” means any entity, including a public agency, city, county or private water company that provides retail water service within the City of Santa Ana.

“*Maximum Applied Water Allowance*” or “*MAWA*” means the upper limit of annual applied water for the established landscaped area as specified in Section 2.2 of the *Standards*. It is based upon the area’s reference evapotranspiration, the *ET Adjustment Factor*, and the size of the landscaped area. The *Estimated Applied Water Use* shall not exceed the *Maximum Applied Water Allowance*.

“*Mined-land reclamation projects*” means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

“*New construction*” means, for the purposes of this Article, a new building with a landscape or other new landscape such as a park, playground. or greenbelt without an associated building.

“*Non-pervious*” means any surface or natural material that does not allow for the passage of water through the material and into the underlying soil.

“*Pervious*” means any surface or material that allows the passage of water through the material and into the underlying soil.

“*Permit*” means an authorizing document issued by local agencies for *new construction* or *rehabilitated landscape*.

“*Plant factor*” or “*plant water use factor*” is a factor, when multiplied by *ET_o*, that estimates the amount of water needed by plants. For purposes of this Article, the *plant factor* range for low water use plants is 0 to 0.3; the *plant factor* range for moderate water use plants is 0.4 to 0.6; and the *plant factor* range for high water use plants is 0.7 to 1.0. *Plant factors* cited in this Article are derived from the Department of Water Resources 2000 publication “Water Use Classification of Landscape Species.”

“*Recycled water*” or “*reclaimed water*” means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and *water features*. This water is not intended for human consumption.

“*Reference evapotranspiration*” or “*ET_o*” means a standard measurement of environmental parameters which affect the water use of plants. *ET_o* is given expressed in inches per day, month, or year as represented in Appendix A of the *Standards*, and is an estimate of the evapotranspiration of a large field of four-to seven-inch tall, cool-season grass that is well watered. *Reference evapotranspiration* is used as the basis of determining the *Maximum Applied Water Allowances*.

“*Rehabilitated landscape*” means any re-landscaping project that meets the applicability criteria of Section 1.1(a), where the modified landscape area is greater than 2,500 square feet, is 50% of the total landscape area, and the modifications are planned to occur within one year.

“*Smart automatic irrigation controller*” means an automatic timing device used to remotely control valves that operate an irrigation system and which schedules irrigation events using either evapotranspiration (weather-based) or soil moisture data.

“*Special landscape area*” means an area of the landscape dedicated solely to edible plants such as orchards and vegetable gardens, areas irrigated with *recycled water*, *water features* using *recycled water*, and areas dedicated to active play such as parks, sports fields, golf courses, and where *turf* provides a playing surface.

“*Turf*” means a ground cover surface of mowed, infrequently mowed, no mow grass, or synthetic turf which meets or exceeds the Standards set forth in the Guidelines. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, Buffalo grass, Mexican Feather grass, Muhly grass, and Sedge grass are warm-season grasses.

“*Valve*” means a device used to control the flow of water in an irrigation system.

“*Water feature*” means a design element where open water performs an aesthetic or recreational function. *Water features* include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of *water features* is included in the high water use *hydrozone* of the landscaped area. Constructed wetlands used for on-site wastewater treatment, habitat protection or storm water best management practices that are not irrigated and used solely for water treatment or storm water retention are not *water features* and, therefore, are not subject to the water budget calculation.