

**PUBLIC WORKS DEPARTMENT  
 LETTER OF TRANSMITTAL**

TO: Mr. Simon Eching  
 California Dept of Water Resources  
 Water Use and Efficiency Branch  
 P O Box 942836  
 Sacramento, CA 94236-0001

FROM: Jon Turner, PE, Interim Public Works Director *Jur*

DATE: February 2, 2010

PROJ. NAME: Landscape Ordinance  
 PROJ. NUMBER:  
 PROJ. CONTACT:

SENT TO YOU VIA:  Mail  Pick Up  Other: Inter office  
 Messenger  Next Day  Fax

NO. OF COPIES	NO. OF PGS.	DESCRIPTION
1	13	Ordinance 1223 Landscape Water Conservation Standards

SENT FOR YOUR:  Files  Approval  Per Your Request  
 Use  Signature  Execution  
 Information

Per your request dated 1-26-2010, our Ordinance 1223 relating to landscape water conservation. The ordinance was passed in December 2009.

**ORDINANCE 1223**

**AN ORDINANCE AMENDING TITLE V OF THE CITY OF SANTA PAULA MUNICIPAL CODE, ADDING A NEW CHAPTER 59 (LANDSCAPE WATER CONSERVATION STANDARDS).**

The City Council does ordain as follows:

**SECTION 1:** A new Chapter 59, entitled "Landscape Water Conservation Standards," is added to Title V of the Santa Paula Municipal Code ("SPMC") to read as follows:

**"Chapter 59**

**LANDSCAPE WATER CONSERVATION STANDARDS**

- 59.01: Purpose.**
- 59.02: Applicability.**
- 59.03: Definitions.**
- 59.04: Compliance Requirements.**
- 59.05: Exceptions.**
- 59.06: Submittals.**
- 59.07: Determination of Conforming Installation.**
- 59.08: Compliance Verification.**

**59.01: Purpose.**

- A. This Chapter is adopted in accordance with Government Code § 65595(c) for the purpose of complying with California law and promoting water conservation. This Chapter may be referred to as the "Landscape Water Conservation Standards." The Landscape Water Conservation Standards are intended to promote water conservation while allowing the maximum possible flexibility in designing healthy, attractive, and cost effective water efficient landscapes.
- B. These Landscape Water Conservation Standards must be used in conjunction with the City of Santa Paula Land Development Provisions for Landscaping and the Guidelines for Implementation of Water Efficient Landscape ("Guidelines"), which are incorporated by this reference and on file with the City Clerk's office. Where conflicts in language may exist between these Landscape Water Conservation Standards and the City's Land Development Provisions for Landscaping, the more restrictive water conserving language prevails.

**59.02: Applicability.**

- A. Compliance with Guidelines and Landscape Water Conservation Standards is mandatory for all new or altered landscaping proposed as a part of new development projects that are subject to discretionary review by the City of Santa Paula. These standards are not mandatory for local, state, or federal historical sites; ecological restoration projects; public botanical or arboretum collections; or individual private rear yards, enclosed by a wall/fence of single-family residences, planned residential groups, and other individual and multi-family residences with a private walled/fenced yard or patio areas, unless required by a discretionary permit.
- B. Cemeteries are exempt from compliance with all provisions of this Chapter, except § 59.04(D).
- C. The Guidelines may be adopted separately by city council resolution and are incorporated into this chapter by reference.

**59.03: Definitions.**

Unless the contrary is stated or clearly appears from the context, the following definitions govern the construction of the words and phrases used in this chapter. Words and phrases not defined by this chapter have the meanings stated in the Water Conservation in Landscaping Act (Government Code §§ 65591, *et seq.*); regulations promulgating the Water Conservation in Landscaping Act; this Code; the City of Santa Paula Land Development Provisions for Landscaping and the Guidelines for Implementation of Water Efficient Landscape; and any successor statutes or regulations.

"Check valve" or "anti-drain valve" means a valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler heads when the sprinkler is off.

"City of Santa Paula Land Development Provisions for Landscaping and the Guidelines for Implementation of Water Efficient Landscape" or "Guidelines" means regulations separately adopted by City Council resolution, and incorporated by reference into this chapter, providing specific regulations for water conservation.

"Certified Landscape Irrigation Auditor" means a person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency's WaterSense

irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

"Distribution Uniformity" or "DU" is a measure of how uniformly an irrigation head applies water to a specific target area and theoretically ranges from zero to 100 percent.

"Drip irrigation" means any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Emitter" means a drip irrigation emission device that delivers water slowly from the system to the soil.

"Estimated Applied Water Use" or "EAWU" means the annual total amount of water estimated to keep plants in a healthy state. It is based on factors such as reference evapotranspiration rate, the size of the landscaped area, plant water use factors, and the irrigation efficiency within each hydrozone.

"Evapotranspiration adjustment factor" or "ETAF" means a factor of 0.7, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. For purposes of the ETAF, the average irrigation efficiency is 0.71. Therefore, the ET Adjustment Factor is  $(0.7) \div (0.5/0.71)$ . ETAF for a Special Landscape Area cannot exceed 1.0. ETAF for existing non-rehabilitated landscapes is 0.8.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

"Flow rate" means the rate at which water flows through pipes, valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

"Hardscape" 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 the City of Santa Paula Guidelines for Implementation of Water Efficient Landscape .

"Hydrozone" means a portion of the landscaped area having plants with similar water needs and typically irrigated by one valve/controller station. A hydrozone may be irrigated or non-irrigated.

"Infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

"Irrigation audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

"Irrigation Management Efficiency" or "IME" means the measurement used to calculate the irrigation efficiency of the irrigation system for a landscaped project. A 90% IME can be achieved by using evapotranspiration controllers, soil moisture sensors, and other methods that will adjust irrigation run times to meet plant water needs.

"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).

"Lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

"Low volume irrigation" means the application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

"Main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.

"Maximum Applied Water Allowance" or "MAWA" means the upper limit of annual applied water for the established landscaped area, as specified in the City of Santa Paula Guidelines. It is based upon

the area's reference evapotranspiration, the ETAF, and the size of the landscaped area. The Estimated Applied Water Use cannot exceed the Maximum Applied Water Allowance.

"Mulch" means any organic material such as leaves, bark, straw or compost, or inorganic mineral materials such as rocks, gravel, or decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

"New construction" means, for the purposes of this ordinance, a new building with existing landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

"Overspray" means the irrigation water which is delivered beyond the target area.

"Person" means any natural person or corporate person, or other entity recognized by law.

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

"Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, that estimates the amount of water needed by plants. For purposes of this chapter, 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 these Guidelines are derived from the Department of Water Resources 2000 publication "Water Use Classification of Landscape Species."

"Precipitation rate" means the rate of application of water measured in inches per hour.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is given expressed in inches per day, month, or year as represented in the City of Santa Paula Guidelines for Implementation of Water Efficient Landscape, 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.

"Runoff" means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscaped

area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

"Sprinkler head" means a device which delivers water through a nozzle.

"Static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

"Station" means an area served by one valve or by a set of valves that operate simultaneously.

"Turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

"Valve" means a device used to control the flow of water in an irrigation system

"Water Efficient Landscape Worksheets" means the worksheets required to be completed pursuant to the Guidelines for Implementation of Water Efficient Landscape.

"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.

**59.04: Compliance Requirements.**

- A. Applicants for New Development proposing new or altered landscaping must comply with each of the following requirements in the design, installation, and maintenance of the landscaped area unless an exception is granted pursuant to this Chapter.
- B. Applicants must submit a detailed landscape plan together with construction and engineering plans including a horticultural soils

report based upon soil samples from the project with laboratory recommendations for all soil preparation and maintenance fertilization. The landscape plan must incorporate recommendations of the soil analysis report and depict the landscaped area and all existing landscaping to remain on the lot as determined by the Public Works Department. Any plant may be selected providing that the landscaped area be designed to be irrigated at no more than 0.70 of the reference evapotranspiration (ET<sub>o</sub>) and cannot exceed the MAWA. The City reserves the right to modify plans in quantity and quality of the landscape to meet the Landscape Water Conservation Standards requirements.

**C. Use of Turf and Water Wise Plants**

1. The landscape area of projects proposing exclusively commercial or industrial uses must be designed without the use of turf and with 100% water wise plants. The exception to this is where a turf type is specified for any required bio-swale or bio-filter systems or areas adjacent to pedestrian traffic where walking travel or crossings are expected such as corner lot locations or linear areas located along pedestrian routes.
2. Turf is the appropriate choice in parkways where vehicle parking is permitted adjacent to the parkway curb. The parkway may include one (1) or a maximum of two (2) non-permanent hardscape areas where space permits. The non-permanent hardscape area can be pervious pavers, decomposed granite, brick on sand, concrete pavers, or other materials approved by the Public Works Director and may serve as a pedestrian landing between the parkway curb and the sidewalk. Each non-permanent hardscape area may be no larger than 4'-0" in width and be installed and sized in such a manner that it can be easily removed should the City or utility company need to do work in the parkway in the future. The pedestrian landing area must be a minimum of 5'-0" away from any street tree and 3'-0" away from any meter boxes, cable boxes, transformers, street lights, or other objects that may be in the parkway.
3. Where parking is not permitted adjacent to the parkway curb, the parkway must be designed using 100% water wise plants.
4. The landscape area of single family residential, multi-

family residential, mixed use, and institutional type of projects must be designed with no more than 40% of the landscaped area in turf or plants that are not water wise plants. In the case of single family residences and other residences with a rear yard that is enclosed by a wall/fence separate from any other residence's rear yard or common area, the area to be used in the calculation of "landscape area" can only include the front yards and any side yard outside the individual dwelling unit's privacy area (typically, a fenced or walled area). Approved turf parkways are not a part of the 40% turf limitation.

5. Turf is not permitted in medians or parking lot landscape finger planters. Turf cannot be used on slopes of 20% (5:1) or greater within the landscape area.
  6. Notwithstanding requirements (a) and (b) above, additional turf areas may be approved by the City of Santa Paula for areas designed and used for outdoor sporting and recreational activities or for an approved functional use. Approved turf areas may be watered at 1.0 of the reference evapotranspiration (ET<sub>o</sub>).
  7. The landscape area, except those portions of the landscaped area planted in turf must be covered with mulch material to an average thickness of at least 3 inches throughout. In areas with groundcovers planted from flats, mulch must be installed to an average thickness of 1 ½ inches. Additional mulch material must be added from time to time as necessary in order to maintain the required depth of mulch.
- D. All new or altered irrigation systems proposed as part of a development proposal must incorporate the following requirements in their design, installation, and maintenance:
1. Irrigation systems must be designed and installed to avoid overspray and runoff. Valves must be separated for individual hydrozones based on plant water needs and sun/shade requirements.
  2. Water Budget Calculations as part of the water efficient landscape worksheets must be shown on Irrigation Plans.
  3. An automatic irrigation system is required and must include a weather based irrigation controller with a rain

shut off sensor.

4. Areas less than eight feet wide are a particular challenge and must be irrigated with appropriately selected equipment that provides the proper amount of water coverage without causing overspray on to paved surfaces.
5. All sprinklers must have matched precipitation rates within each valve and circuit. All irrigation systems must be designed to include optimum distribution uniformity, head to head spacing, and setbacks from walkways and pavement.
6. All irrigation systems must provide check valves at the low end of irrigation lines to prevent unwanted draining of irrigation lines.
7. Pressure regulators may be required on the irrigation system as determined by the Public Works Department.

**59.05: Exceptions.**

Exceptions to these Landscape Water Conservation Standards may be granted by the Public Works Director upon finding that the exceptions will promote equivalent or greater water conservation than is provided for in these standards. Requests for exceptions must be in writing and submitted to the Public Works Director at the time the application is submitted to the City for review. Requests for exceptions must be accompanied by documentation demonstrating that the finding of equivalent or greater water conservation can be made.

**59.06: Submittals.**

- A. Applicants must provide all relevant information on the landscape plan including botanical names for plants and turf species; container sizes; percentage calculations of allowable areas of turf; low, medium or high water use plants and water-wise plants; water budget calculations; monthly irrigation schedule; and specific requests for any exceptions to the requirements of these Landscape Water Conservation Standards. Areas of existing landscaping to remain unaltered must be indicated on the landscape plan.
- B. The landscape plan must be prepared in accordance with the provisions of the Business and Professions Code relating to the

practice of landscape architecture (Business and Professional Code §§ 5641, *et seq.*)

- C. The landscape plan must include a "Statement of Compliance" in a form approved by the Public Works Director certifying that the landscape design complies with the mandatory elements of the Landscape Water Conservation Standards. The person who prepared the plans must sign the Statement of Compliance.

**59.07: Determination of Conforming Installation.**

The person who prepared the landscape plan must inspect the installation of the landscaping and any irrigation system included in the plan and certify in writing to the Public Works Department that the installation substantially conforms to the approved Landscape Plan before a final City landscape inspection or occupancy being requested.

**59.08: Compliance Verification.**

- A. Verification of compliance with the Landscape Water Conservation Standards, as applicable, must be made by the Public Works Department in accordance with the following requirements:
  - 1. No building permit can be issued unless the statement of compliance is included on the final landscape plan submitted for plan check approval.
  - 2. No building permit can be given a final landscape inspection or issued a permanent certificate of occupancy until the Public Works Department receives a written determination of conforming installation."

**SECTION 2:** The City Council finds, based upon the record, that this Ordinance is at least as effective in conserving water as the California Department of Water Resource's updated Model Water Efficient Landscape Ordinance as follows:

- A. The ordinance is applicable to all new or altered development subject to discretionary review by the City.
- B. Under the ordinance, landscaping must be designed and irrigated so not to exceed 70% of the local evapotranspiration rate (ET<sub>o</sub>) established by the California Department of Water Resources for the City of Santa Paula.
- C. Under the ordinance, landscape areas for commercial and

industrial projects must use 100% water wise plants without turf (some exceptions).

- D. Under the ordinance, landscape areas for residential, mixed use, and institutional type projects must be designed with less than 40% in turf and non-water wise plant materials.
- E. Under the ordinance, automatic irrigation systems are required and must be designed to avoid overspray and runoff with optimum distribution uniformity and setbacks from pavement and employ a weather based irrigation controller with a rain shut off sensor and check valves at the end of each line to hold water in the system to prevent unwanted drainage from sprinkler heads.
- F. Exceptions to the ordinance standards are allowed upon a finding that alternative design will promote equivalent or greater water conservation.
- G. Under the ordinance, installation and compliance verifications are required of the landscape designer.
- H. Under the ordinance, the maximum annual applied water allowance calculation matches the California Department of Water Resource's formula in its Model Water Efficient Landscape Ordinance.
- I. Under the ordinance, the identification of water wise plants matches that used by the California Department of Water Resource's in its Model Water Efficient Landscape Ordinance; namely, the "Water Use Classification of Landscape Species" prepared by the University of California Cooperative Extension.

**SECTION 3: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION.**

This ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, *et seq.*, "CEQA") and CEQA regulations (14 California Code of Regulations §§ 15000, *et seq.*) because it establishes rules and procedures to permit operation of existing facilities; minor temporary use of land; ensure maintenance, restoration and protection of the environment; and regulate normal operations of facilities for public gatherings. This Ordinance, therefore, is categorically exempt from further CEQA review under Cal. Code Regs. Title 14, §§ 15301, 15304(e), 15308, and 15323.

**SECTION 4: PUBLIC NOTIFICATION.** The City Manager, or designee, is directed to provide public notification regarding the regulations set forth in this ordinance through any reasonable means including, without limitation, newspaper publications, flyers contained within the City's utility bills, and

advertising on the City's cable channel.

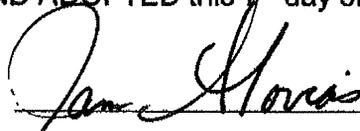
**SECTION 5: SAVINGS CLAUSE.** Repeal of any provision of the SPMC or any other regulation by this Ordinance does not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

**SECTION 6: SEVERABILITY.** If any part of this Ordinance or its application is deemed invalid by a court of competent jurisdiction, the city council intends that such invalidity will not affect the effectiveness of the remaining provisions or applications and, to this end, the provisions of this Ordinance are severable.

**SECTION 7: VALIDITY OF PREVIOUS CODE SECTIONS.** If this the entire Ordinance or its application is deemed invalid by a court of competent jurisdiction, any repeal of the SPMC or other regulation by this Ordinance will be rendered void and cause such SPMC provision or other regulation to remain in full force and effect for all purposes.

**SECTION 8:** The City Clerk must certify as to the adoption of this ordinance and shall cause the summary thereof to be published within fifteen calendar (15) days of the adoption and post a certified copy of this ordinance, including the vote for and against the same, in the office of the City Clerk, in accordance with Government Code § 36993, for the City of Santa Paula.

PASSED AND ADOPTED this 7<sup>th</sup> day of December, 2009.

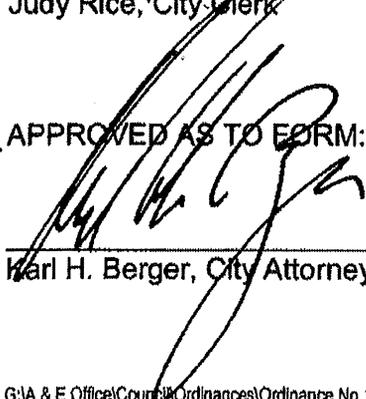
  
\_\_\_\_\_  
Mayor

ATTEST:

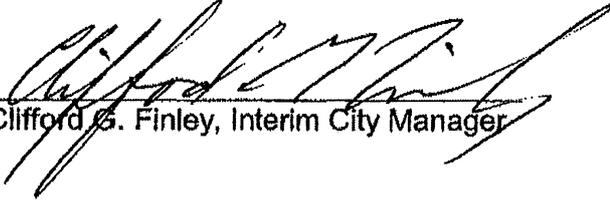
  
\_\_\_\_\_  
Judy Rice, City Clerk



APPROVED AS TO FORM:

  
\_\_\_\_\_  
Karl H. Berger, City Attorney

APPROVED AS TO CONTENT:



Clifford G. Finley, Interim City Manager