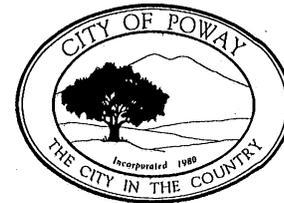


CITY OF POWAY

DON HIGGINSON, Mayor
CARL KRUSE, Deputy Mayor
MERRILEE BOYACK, Councilmember
JIM CUNNINGHAM, Councilmember
BETTY REXFORD, Councilmember



January 28, 2010

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

Subject: Landscape Efficiency Ordinance and Landscape and Irrigation Design Manual

Dear Mr. Eching:

On December 5, 2009, the Poway City Council adopted Ordinance 700, which incorporated Landscape Efficiency standards into the Poway Municipal Code (PMC). The Ordinance became effective on January 15, 2010. The Ordinance contains findings that demonstrate that the new standards are equally effective as those contained in the State Model Ordinance.

On January 5, 2010, the Poway City Council adopted The City of Poway Landscape and Irrigation Design Manual (Manual), a companion item to the landscape efficiency standards.

Together the PMC and the Manual will achieve the exterior water use conservation requirements of State law. Ordinance 700 and the Manual are enclosed for your information.

If you need clarification of City standards, or have any comments, you may contact me by phone at (858) 668-4658 or via email at jmartin@poway.org.

Sincerely,

DEVELOPMENT SERVICES DEPARTMENT

A handwritten signature in black ink, appearing to read "jmartin", is written over the typed name.

Jason Martin, AICP
Senior Planner

Enclosures

Ordinance 700
Landscape and Irrigation Design manual

M:\planning\jason\CAwater.docx

ORDINANCE NO. 700

AN ORDINANCE OF THE CITY OF POWAY, CALIFORNIA,
AMENDING SECTION 16.18.030(A)(9) OF TITLE 16 AND ADDING CHAPTER 17.41,
LANDSCAPE EFFICIENCY STANDARDS, TO TITLE 17 OF THE POWAY MUNICIPAL
CODE ESTABLISHING WATER EFFICIENT LANDSCAPE STANDARDS
(ZONING ORDINANCE AMENDMENT 09-04)

WHEREAS, in 2006 the State of California adopted, pursuant to Assembly Bill 1881, a new Water Conservation in Landscaping Act, Government Code Sections 65591 et seq. The Act requires the Department of Water Resources to update previously adopted water efficient landscape ordinances to provide for greater efforts at water conservation and more efficient use of water in landscaping; and

WHEREAS, Government Code Section 65595 requires that on or before January 1, 2010, a local agency shall adopt a water efficient landscape ordinance that is at least as effective in conserving water as the updated model ordinance or adopt the model ordinance. If a local agency does not adopt a water efficient landscape ordinance by January 1, 2010, the updated model ordinance prepared by the Department of Water Resources shall apply within the local jurisdiction and shall be enforced by the local agency; and

WHEREAS, the City's current landscaping standards must be updated to be in compliance with Government Code Section 65595; and

WHEREAS, this Ordinance adopts water efficient landscape standards for the City of Poway which include provisions for: (1) water conservation by the appropriate use and grouping of plants that are well adapted to particular sites and local conditions; (2) a landscape water budget that establishes the maximum allowable amount of water to be applied through the irrigation system; (3) automatic irrigation systems and irrigation schedules based on climatic conditions, terrains and soil types, and other environmental conditions; (4) onsite soil assessment and soil management plans that include Grading and drainage to promote healthy plant growth and prevent excessive erosion and Runoff; and (5) promoting the use of Recycled Water for landscaping when it is available and the use is consistent with State law; and

WHEREAS, this ordinance will increase water use efficiency by establishing water budgets, promoting installation and maintenance of efficient irrigation systems, and encouraging use of plants that use water efficiently based on climate, soil type and site features; and

WHEREAS, water waste restrictions, including penalties for violations, currently exist in Chapter 8.94 of the Poway Municipal Code and are referenced in this Ordinance; and

WHEREAS, this Ordinance is consistent with the findings and declarations the State Legislature made when adopting the Water Conservation in Landscaping Act and is as effective as the Department of Water Resource's updated model water efficient landscape ordinance; and

WHEREAS, on December 1, 2009, and December 15, 2009, the City Council held a duly advertised public hearing to solicit comments from the public, both pro and con, relative to this ordinance.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF POWAY DOES ORDAIN AS FOLLOWS:

Section 1: The City Council finds that the adoption of this Ordinance is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15307 of the CEQA Guidelines, as a Class 7 exemption, because the project consists of action taken by the City to require conservation in exterior water use, thereby protecting and important natural resource.

Section 2: Section 16.18.030(A)(9) of the Poway Municipal Code is amended to read as follows:

Landscaping and irrigation facilities and improvements in conjunction with highway slopes, median islands, and parkway beautification. All public and private landscape and irrigation projects shall be designed in accordance with Chapter 17.41 contained in Title 17 and the City of Poway Landscape and Irrigation Design Manual, and approved by the Director of Development Services except that, landscaping which will be maintained by the City, shall be approved by the Director of Public Works.

Section 3: Chapter 17.41 of the Poway Municipal Code is added as follows:

CHAPTER 17.41 LANDSCAPE EFFICIENCY STANDARDS

- 17.41.010 Purpose
- 17.41.020 Findings
- 17.41.030 Definitions
- 17.41.040 Applicability
- 17.41.050 Landscape Approval
- 17.41.060 Administration, Enforcement and Landscape Manual
- 17.41.070 Landscape Documentation Package
- 17.41.080 Soil Management Report
- 17.41.090 Planting and Irrigation Plan
- 17.41.100 Water Efficient Landscape Worksheet
- 17.41.110 Grading Design Plan
- 17.41.120 Irrigation Schedule
- 17.41.130 Maximum Applied Water Allowance
- 17.41.140 Estimated Total Water Use
- 17.41.150 Adjustment to Landscaped Area for Non-Vegetated Area
- 17.41.160 Cemeteries
- 17.41.170 Regulations Applicable to Use of Turf on Landscaped Areas
- 17.41.180 Recycled Water
- 17.41.190 Landscaping and Irrigation Installation
- 17.41.200 Landscaping and Irrigation Maintenance
- 17.41.210 Water Use Authorization Modification

17.41.220 Certificate of Completion
17.41.230 Waste Water Prevention
17.41.240 Fees

17.41.010 Purpose

A. The State Legislature determined in the Water Conservation in Landscaping Act (the "Act"), Government Code Sections 65591 et seq., that the State's water resources are in limited supply. The Legislature also recognized that while landscaping is essential to the quality of life in California, landscape design, installation, maintenance, and management must be water efficient. The general purpose of this chapter is to establish landscaping efficiency standards in the City that implement design requirements established by the Act. Consistent with the Legislature's findings, the purpose of this ordinance is to:

1. Promote the values and benefits of landscapes while recognizing the need to utilize water and other resources as efficiently as possible.
2. Establish a structure for planning, designing, installing, maintaining, and managing water-efficient landscapes in new construction.
3. Promote the use, when available, of tertiary-treated Recycled Water for irrigating landscaping.
4. Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use for landscaping to the lowest practical amount.
5. Encourage water users of existing landscapes to water efficiently and without waste.

17.41.020 Findings

A. This Chapter (Landscape Efficiency Regulations) implements the Water Conservation in Landscaping Act. The requirements of this Chapter reduce water use associated with irrigation of outdoor landscaping by setting a maximum amount of water to be applied to landscaping and by designing, installing and maintaining water efficient landscapes consistent with the water allowance. The provisions of this Chapter are equivalent to and at least as effective as the provisions of the State Model Landscape Ordinance because the calculation of maximum applied water allowance and the resulting restrictions on irrigation and process are similar, though tailored to the City's existing regulatory procedures.

B. Pursuant to Government Code Section 65595, the City must adopt either the State Model Ordinance or a water efficient landscape ordinance that is, based on the evidence in the record, at least as effective in conserving water as the State Model Ordinance. The City Council finds that the regulations in this Chapter are at least as effective as the State Model Ordinance in that they:

1. Include provisions for:
 - a. water conservation by the appropriate use and grouping of plants that are well adapted to particular sites and local conditions;
 - b. a landscape water budget that establishes the maximum allowable amount of water to be applied through the irrigation system;
 - c. automatic irrigation systems and irrigation schedules based on climatic conditions, terrains and soil types, and other environmental conditions;
 - d. onsite soil assessment and soil management plans that include Grading and drainage to promote healthy plant growth and prevent excessive erosion and Runoff; and
 - e. promoting the use of Recycled Water for landscaping when it is available and the use is consistent with State law; and
2. Will increase water use efficiency by establishing water budgets, promoting installation and maintenance of efficient irrigation systems, and encouraging use of plants that use water efficiently based on climate, soil type and site features; and
3. Lower the threshold for projects in the City that must comply with the regulations from the thresholds identified in the State Model Ordinance, to require compliance for all projects creating a new landscape area of 1,000 square feet or more.

17.41.030 Definitions

The following definitions shall apply to this Chapter:

A. "Automatic Irrigation Controller" means an automatic timing device used to remotely control valves that operate an irrigation system. Automatic Irrigation Controllers shall schedule irrigation events using either Evapotranspiration (ET_o) (weather-based) or moisture sensor data.

B. "Building Permit" means a permit to engage in a certain type of construction on a specific location, including a plumbing permit.

C. "Certified Landscape Irrigation Auditor" means a person certified to perform landscape Irrigation Audits by an accredited academic institution, a professional trade organization or other accredited certification program.

D. "Developer" means a person who seeks or receives permits for or who undertakes land development activities, who is not a single-family homeowner. Developer includes Developer's partner, associate, employee, consultant, trustee, or agent, or anyone who builds residential or commercial developments.

E. "Director" means the Director of Development Services or anyone to whom the Director has designated or hired to administer or enforce this Chapter.

F. "Discretionary Permit" means any permit requiring a decision-making body to exercise judgment prior to its approval, conditional approval or denial.

G. "Estimated Total Water Use" (ETWU) means the Estimated Total Water Use in gallons per year for a Landscaped Area.

H. "ET Adjustment Factor" (ETAF) means a factor that when applied to reference Evapotranspiration, adjusts for plant water requirements and Irrigation Efficiency, two major influences on the amount of water that is required for healthy landscape.

I. "Evapotranspiration" (ET_o) means the quantity of water evaporated from adjacent soil and other surfaces, and transpired by plants during a specified time period. "Reference Evapotranspiration" means a standard measurement of environmental parameters which affect the water use of plants. ET_o is given in inches per day, month or year, and is an estimate of the Evapotranspiration of a large field of four-inches to seven-inches of tall cool-season Turf that is well watered. Reference Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

J. "Grading" means an importation, excavation, movement, loosening, or compaction of soil or rock.

K. "Hardscape" means any durable surface material, Pervious or non-Pervious.

L. "Homeowner-Provided Landscaping" means landscaping installed either by a private individual for a single-family residence or installed by a licensed contractor hired by a homeowner.

M. "Hydrozone" means a portion of the landscape area having plants with similar water needs. A Hydrozone may be irrigated or non-irrigated.

N. "Invasive Species" means vegetation that is not native to the area where it occurs and interferes with native species growing or attempting to grow in the area.

O. "Irrigation Audit" means an inspection, which includes an in depth evaluation of the performance of an irrigation system, conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit may include, 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.

P. "Irrigation Efficiency" means the measurement of the amount of water beneficially used divided by the water applied. Irrigation Efficiency is derived from measurements and estimates of irrigation system characteristics and management practices.

- A. "Landscaped Area" means an area with outdoor plants, Turf and other vegetation that uses water provided by a Public Water Purveyor within the City of Poway. A Landscaped Area includes a Water Feature either in an area with vegetation or that stands alone. A Landscaped Area does not include the footprint of a building, decks, patio, sidewalk, driveway, parking lot, or other Hardscape. A Landscaped Area also does not include an area without irrigation designated for non-development such as designated open space or areas with existing native vegetation. A Landscaped Area shall not include areas of Pervious surface that only contain low water use plants covering no more than one-third of the surface area.
- B. "Landscape Design Manual" means the City of Poway Landscaping and Irrigation Design Manual that establishes specific design criteria and guidance to implement the requirements of this Chapter.
- C. "Low Head Drainage" means a sprinkler head or other irrigation device that continues to emit water after the water to the zone in which the device is located has shut off.
- D. "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 lines or bubblers.
- E. "Mass Grading" means the movement of more than 5,000 cubic yards of soil by mechanical means to alter the topographic features of a site.
- F. "Maximum Applied Water Allowance" (MAWA) means the maximum allowed annual water use for a specific Landscaped Area based on the square footage of the area, the ETAF and the reference ETo.
- G. "Mulch" means an organic material such as leaves, bark, straw, or inorganic mineral materials such as rocks, gravel or decomposed granite left loose and applied to the soil surface to reduce evaporation, suppress weeds, moderate soil temperature, or prevent soil erosion.
- H. "Overspray" means the water from irrigation that is delivered outside an area targeted for the irrigation and makes contact with a surface not intended to be irrigated.
- I. "Pervious" means any surface or material that allows the passage of water through the material and into underlying soil.
- J. "Plant Factor" means a factor when multiplied by the ETo that estimates the amount of water a plant needs.
- K. "Public Water Purveyor" means a public utility, municipal water district, municipal irrigation district, or municipality that delivers water to customers.

L. "Reclaimed Water" is defined in Section 13.10.030(J) of the Poway Municipal Code.

M. "Runoff" means water that is not absorbed by the soil or landscape to which it is applied and flows from the Landscaped Area.

N. "Special Landscaped Area" means an area of the landscape dedicated to edible plants, an area irrigated with Recycled Water or an area dedicated to active play such as a park's sports field or golf course where Turf provides a playing surface.

O. "Subsurface Irrigation" means an irrigation device with a delivery line and water emitters installed below the soil surface that slowly and frequently emit small amounts of water into the soil to irrigate plant roots.

P. "Transitional Area" means an area immediately adjacent to an area that contains vegetation but is not irrigated and will not be irrigated.

Q. "Turf" means a groundcover surface of mowed grass.

R. "Water Feature" means a design element where open water performs an aesthetic or recreational function. A Water Feature includes a pond, lake, waterfall, fountain, artificial stream, spa, or swimming pool where a Public Water Purveyor within the City of Poway provides water for the feature. Constructed wetlands used for onsite wastewater treatment or stormwater best management practices are not Water Features.

S. "WUCOLS III" means Water Use Classification of Landscape Species and refers to the Department of Water Resources 1999 publication authored by a U.C. Cooperative extension employee, Larry Costello.

17.41.040 Applicability

A. This Chapter shall apply to the following projects in the City of Poway, unless otherwise noted, for which the City of Poway issues a Building Permit or a Discretionary Permit after the Chapter's effective date:

1. A project for an industrial, commercial, institutional, multi-family residential, or single-family residential use with a new Landscaped Area that is greater than or equal to 1,000 square feet.

2. A public agency project with a new landscape area that is greater than or equal to 1,000 square feet.

3. A rehabilitated landscape for an existing, or a redeveloped industrial, commercial, institutional, public agency, multifamily, or single family use where a Building Permit or Discretionary Permit, or an amendment to a previously approved Discretionary Permit, is being issued and the applicant is installing or modifying a landscape area that is greater than or equal to 1,000 square feet.

4. A cemetery under limited requirements in Section 17.41.160.

B. This Chapter shall not apply to the following:

1. A registered local, State or federal historical site.
2. An ecological restoration project that does not require a permanent irrigation system.
3. A mined land reclamation project that does not require a permanent irrigation system.
4. A botanical garden or arboretum, open to the public.
5. Projects that are in the Discretionary Permitting process, and include detailed site development plans that shows building layout, Grading and landscape; and have been deemed a complete application by the effective date of this chapter. This exemption is additionally applicable to the project's subsequent Building Permits.

6. Single family home projects that are proposed for reconstruction as a result of wildfire destruction, which have submitted a Minor Development Review application or Building Permit application, for the reconstruction prior to the effective date of this chapter.

17.41.050 Landscape Approval

No person who constructs a project subject to this Chapter shall install landscaping without the review and approval required by this Chapter.

17.41.060 Administration, Enforcement and Guidance Manual

A. The Director shall administer and enforce this Chapter.

B. The City of Poway shall prepare a Landscape and Irrigation Design Manual that provides guidance to applicants on how to comply with the requirements of this Chapter.

17.41.070 Landscape Documentation Package

A. An applicant for a Building Permit for a project described in Section 17.41.040 shall submit a landscape documentation package with the Building Permit application.

B. The landscape documentation package required by Subsection A shall contain the following:

1. A soil management report and plan that complies with Section 17.41.080, that analyzes the soil within each Landscaped Area of the project and makes recommendations regarding soil additives.

2. Planting and irrigation plans that comply with Section 17.41.090 that describe the landscaping and irrigation for the project.

3. A water efficient landscape worksheet, that complies with Section 17.41.100, that calculates the MAWA and the ETWU for the project.

4. A Grading design plan that complies with Section 17.41.110, that describes the Grading of the project. If the project applicant has submitted a Grading plan with the application for the project, the Director may accept that Grading plan in lieu of the Grading design plan required by this Subsection, if the Grading plan complies with Section 17.41.110.

17.41.080 Soil Management Report

A. The soil management report required by Section 17.41.080 shall be prepared by a licensed landscape architect, licensed civil engineer, or licensed architect, or other person with similar training necessary to prepare the applicable plan and report, and shall contain the following information:

1. An analysis of the soil for the proposed landscape areas of the project that includes information about the soil texture, soil infiltration rate, pH, total soluble salts, sodium, and percent organic matter.

2. Recommendations about soil amendments that may be necessary to foster plant growth and plant survival in the Landscaped Area using efficient irrigation techniques.

B. When a project involves Mass Grading of a site, the applicant shall submit the soil management report that complies with Subsection A above with the certificate of completion.

C. The soil management report shall include information regarding proposed soil amendments and Mulch:

1. The report shall identify the type and amount of Mulch for each area where Mulch is applied. Mulch shall be used as follows:

a. A minimum two-inch layer of Mulch shall be applied on all exposed soil surfaces in each Landscaped Area except in Turf areas, creeping or rooting ground covers, or direct seeding applications where Mulch is contraindicated.

b. Stabilizing Mulch shall be applied on slopes.

c. The Mulching portion of seed/Mulch slurry in hydro-seeded applications shall comply with Subsection a above.

d. Flammable Mulch material shall not be used.

2. The report shall identify any soil amendments and their type and quantity.

17.41.090 Planting and Irrigation Plans

A. The planting and irrigation plans required by Section 17.41.070 shall be prepared by a licensed landscape architect, licensed civil engineer, licensed architect, or other person with similar professional training necessary to prepare the applicable plan. The plans shall:

1. Include the MAWA for the plans, including the calculations used to determine the MAWA. The calculations shall be based on the formula in Section 17.41.130.

2. Include the ETWU for the plans, including the calculations used to determine the ETWU. The calculations shall be based on the formula in Section 17.41.140.

3. Include a statement, signed under penalty of perjury, by the person who prepared the plan that provides, "I am familiar with the requirements for landscape and irrigation plans contained in Chapter 17.41 of the Poway Municipal Code, Landscape Efficiency Standards. I have prepared this plan in compliance with those regulations. I certify that the plan implements those regulations to provide efficient use of water."

4. Demonstrate compliance with best management practices required by Division IV of Title 16, and Chapter 13.09 of Title 13, of the Poway Municipal Code.

5. Address fire safety issues and demonstrate compliance with applicable State requirements and as specified in the City of Poway Landscape and Irrigation Design Manual for fire fuel management around buildings and structures, and shall avoid the use of fire-prone vegetation.

B. The planting plan shall meet the following requirements:

1. The plan shall include a list of all vegetation by common and botanical plant name, which exists in the proposed Landscaped Area. The plan shall state what vegetation will be retained and what will be removed.

2. The plan shall include a list of all vegetation by common and botanical plant name which will be added to each Landscaped Area. No invasive plant species, as identified in the WUCOLS III manual, shall be added to a Landscaped Area. The plan shall include the total quantities by container size and species. If the applicant intends to plant seeds, the plan shall describe the seed mixes, and applicable purity and germination specifications.

3. The plan shall include a detailed description, to include the water surface area, of each Water Feature that will be included in the Landscaped Area.

4. The plan shall be accompanied by a drawing showing, on a page or pages, the specific location of all vegetation, retained or planted, the plant spacing and plant size, natural features, Water Features, and Hardscape areas. The drawing shall include a legend listing the common and botanical plant name of each plant shown on the drawing.

5. All plants shall be grouped in Hydrozones and the irrigation shall be designed to deliver water to Hydrozones based on the moisture requirements of the plant grouping. A Hydrozone may mix plants of moderate and low water use, or mix plants of high water use with plants of moderate water use. No high water use plants shall be allowed in a low water use Hydrozone. The plan shall also demonstrate how the plant groupings accomplish the most efficient use of water.

6. The plan shall identify areas permanently and solely dedicated to edible plants.

7. The plan shall demonstrate that landscaping, when installed and at maturity, will be positioned to avoid obstructing a motorist view of pedestrian crossings, driveways, roadways, and other vehicular travel ways. If the landscaping will require maintenance to avoid obstructing a motorist view, the plan shall describe the maintenance and the frequency of the proposed maintenance.

8. The plan shall avoid the use of landscaping with known surface root problems adjacent to a paved area, unless the plan provides for installation of root control barriers or other appropriate devices to control surface roots.

9. Plants in a Transitional Area shall consist of a combination of site-adaptive and compatible native and/or non-native species. No Invasive Species shall be introduced or tolerated in a Transitional Area. The irrigation in a Transitional Area shall be designed so that no Overspray or Runoff shall enter an adjacent area that is not irrigated.

10. On a project other than a single-family residence, if recreation areas are proposed, the plan shall identify if they are passive or active recreational areas.

C. The Irrigation Plan shall meet the following requirements:

1. The plan shall show the location, type and size of all components of the irrigation system that will provide water to the Landscaped Area, including the controller, water lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and backflow prevention devices.

2. The plan shall show the static water pressure at the point of connection to the public water supply and the flow rate in gallons, the application rate in inches per hour, and the design operating pressure in pressure per square inch for each station.

3. The irrigation system shall be designed to prevent Runoff, Overspray, low-head drainage, and other similar conditions where irrigation water flows or sprays onto areas not intended for irrigation. The plan shall also demonstrate how Grading and drainage techniques promote healthy plant growth and prevent erosion and Runoff.

4. The plan shall identify each area irrigated with Reclaimed Water.

5. The plan shall provide that any slope greater than 25 percent will be irrigated with an irrigation system with a precipitation rate of .75 inches per hour or less to prevent Runoff and erosion. As used in this Chapter, 25 percent grade means one foot of vertical elevation change for every four feet of horizontal length. An applicant may employ an alternative design if the plan demonstrates that no Runoff or erosion will occur.

6. The plan shall provide that all wiring and piping under a paved area that a vehicle may use, such as a parking area, driveway or roadway, will be installed inside a PVC conduit.

7. The plan shall provide that irrigation piping and irrigation devices that deliver water, such as sprinkler heads, shall be installed below grade if they are within 24 inches of a vehicle or pedestrian use area. The Director may allow on-grade piping where landform constraints make below grade piping infeasible.

8. The plan shall provide that only low-volume or Subsurface Irrigation shall be used to irrigate any vegetation within 24 inches of an impermeable surface, unless the adjacent impermeable surfaces are designed and constructed to cause water to drain entirely into a Landscaped Area.

9. The irrigation system shall provide for the installation of a manual shutoff valve as close as possible to the water supply. Additional manual shutoff valves shall be installed between each zone of the irrigation system and the water supply.

10. The irrigation system shall provide that irrigation for any Landscaped Area will be regulated by an Automatic Irrigation Controller.

11. The irrigation system shall be designed with landscape Irrigation Efficiency necessary to meet the MAWA.

12. The plan shall describe each Automatic Irrigation Controller the system uses to regulate the irrigation schedule and whether it is a weather-based system or moisture detection system. The plan shall depict the location of electrical service for the Automatic Irrigation Controller, or describe the use of batteries or solar power that will power valves or a smart controller.

17.41.100 Water Efficient Landscape Worksheet

A. The water efficient landscape worksheet required by Section 17.41.070 shall be prepared by a licensed landscape architect, licensed civil engineer, licensed architect, or other person with similar professional training, and shall contain the following:

1. A Hydrozone information table that contains a list of each Hydrozone in the Landscaped Area of the project and complies with the following requirements:

a. For each Hydrozone listed the table shall identify the plant types and Water Features in the Hydrozone, the irrigation methods used, and the square footage and percentage of the total Landscaped Area of the project that the Hydrozone represents.

b. The plant types shall be categorized as Turf, high water use, moderate water use or low water use.

2. Water budget calculations, which shall meet the following requirements:

a. The Plant Factor used shall be from WUCOLS III. The Plant Factor ranges from 0.1 for very low water use plants, 0.3 for low water use plants, 0.5 for moderate water use plants, and 0.8 for high water use plants. A plan that mixes plants in a Hydrozone that require a different amount of water shall use the Plant Factor for the highest water using plant in the Hydrozone.

b. Temporarily irrigated areas shall be included in the low water use Hydrozone. Temporarily irrigated, as used in this Chapter, means the period of time when plantings only received water until they become established.

c. The surface area of a Water Feature shall be included in a high water use Hydrozone.

d. The calculations shall use the formula for the MAWA in Section 17.41.130 for the ETWU in Section 17.41.140.

e. Each Special Landscaped Area shall be identified on the worksheet and the area's water use calculated using an ETAF of 1.0.

17.41.110 Grading Design Plan

A. The Grading design plan required by Section 17.41.070 shall be prepared by a California licensed civil engineer, licensed landscape architect, licensed architect, or person with similar professional training, and shall comply with the following requirements:

1. The Grading on the project site shall be designed for the efficient use of water by minimizing soil erosion, Runoff and water waste resulting from precipitation and irrigation.

2. The plan shall show the finished configurations and elevations of each Landscaped Area, including the height of graded slopes, the drainage pattern, pad elevations, finish grade, and any stormwater retention improvements.

17.41.120 Irrigation Schedule

A. The irrigation schedule required by Section 17.41.070 shall be prepared by a licensed landscape architect, licensed civil engineer or licensed architect and provide the following information.

1. A description of the automatic irrigation system that will be used for the project.

2. The Evapotranspiration data relied on to develop the irrigation schedule, including the source of the data.

3. The time period when overhead irrigation will be scheduled, and confirm that no overhead irrigation shall be used between the hours, and during the days of the week, that may be periodically set and modified by the City of Poway.

4. The parameters used for setting the irrigation system controller for watering times for:

- a. The plant establishment period.
- b. Established landscaping.
- c. Temporarily irrigated areas.
- d. Different seasons during the year.

5. The consideration used for each station for the following factors:

- a. The days between irrigation.
- b. Station run time in minutes for each irrigation event, designed to avoid Runoff.
- c. Number of cycle starts required for each irrigation event, designed to avoid Runoff.
- d. Amount of water to be applied on a monthly basis.
- e. The root depth setting.
- f. The plant type setting.
- g. The soil type.

- h. The slope factor.
- i. The shade factor.

17.41.130 Maximum Applied Water Allowance (MAWA)

A. A landscape project subject to this Chapter shall not exceed the MAWA. The MAWA for a landscape project shall be determined by the following calculation:

$$\text{MAWA} = (\text{ETo})(0.62)[0.7 \times \text{LA} + 0.3 \times \text{SLA}]$$

B. The abbreviations used in the MAWA equation have the following meanings:

1. MAWA = Maximum Applied Water Allowance in gallons per year.
2. ETo = Evapotranspiration in inches per year.
3. 0.62 = Conversion factor to gallons per square foot.
4. 0.7 = ET Adjustment Factor for Plant Factors and Irrigation Efficiency.
5. LA = Landscaped Area includes Special Landscaped Area in square feet.
6. 0.3 = the additional ET Adjustment Factor for a Special Landscaped Area (1.0 – 0.7 = 0.3).
7. SLA = Portion of the Landscaped Area identified as a Special Landscaped Area in square feet.

17.41.140 Estimated Total Water Use (ETWU)

A. An applicant for a project subject to this Chapter shall calculate the ETWU for each Landscaped Area and the entire project using the following equation:

$$\text{ETWU} = (\text{ETo})(0.62)(\text{PF} \times \text{HA} / \text{IE} + \text{SLA})$$

B. The abbreviations used in the ETWU equation have the following meanings:

1. ETWU = Estimated Total Water Use in gallons per year.
2. ETo = Evapotranspiration in inches per year.
3. 0.62 = Conversion factor to gallons per square foot.
4. PF = Plant Factor from WUCOLS.
5. HA = Hydrozone Area in square feet. Each HA shall be classified based upon the data included in the landscape and irrigation plan as high, medium or low water use.

6. IE = Irrigation Efficiency (minimum 0.71).
7. SLA = Special Landscaped Area in square feet.

C. The ETWU for a proposed project shall not exceed the MAWA.

17.41.150 Adjustment to Landscaped Area for Non-Vegetated Area

Rock and stone, or Pervious design features such as decomposing granite ground cover; that are adjacent to a vegetated area may be included in the calculation of the MAWA and ETWU, provided the features are integrated into the design of the landscape area and the primary purpose of the feature is decorative.

17.41.160 Cemeteries

- A. A person submitting an application for a cemetery shall submit the following:
1. A concept plan, as described in Section 17.41.050.
 2. A water efficient irrigation worksheet that calculates the MAWA for the project with the application that complies with Section 17.41.100.
 3. A landscape irrigation and maintenance schedule that complies with Section 17.41.200.

17.41.170 Regulations Applicable to Use of Turf on Landscaped Areas

A. The following regulations shall apply to the use of Turf on a project subject to this Chapter:

1. Only low-volume or Subsurface Irrigation shall be used for Turf in a Landscaped Area:
 - a. On a slope greater than 25 percent grade where the toe of the slope is adjacent to an impermeable Hardscape.
 - b. Where any dimension of the Landscaped Area is less than six feet wide.
2. On a commercial, industrial or multi-family project no Turf shall be allowed on a center island median strip or on a parking lot island.
3. A ball field, park, golf course, cemetery, and other similar uses shall be designed to limit Turf in any portion of a Landscaped Area not essential for the operation of the facility.
4. No Turf shall be allowed in a Landscaped Area that cannot be efficiently irrigated, such as avoiding Runoff or Overspray.

17.41.180 Reclaimed Water

A. A person who obtains a permit for a project that is subject to this Chapter shall use Reclaimed Water for irrigation when tertiary treated Reclaimed Water is available from the water purveyor who supplies water to the property for which the City issues a permit.

B. A person using Reclaimed Water shall install a dual distribution system for water received from a public water surveyor. Pipes carrying Reclaimed Water shall be purple.

C. A person who uses Reclaimed Water under this Section shall be entitled to an ETAF of 1.0.

D. This Section does not excuse a person using Reclaimed Water from complying with all State and local laws and regulations related to Reclaimed Water use.

17.41.190 Landscaping and Irrigation Installation

The project applicant subject to this Chapter shall install the approved landscaping and irrigation system before final inspection of the project, unless otherwise authorized by the City.

17.41.200 Landscaping and Irrigation Maintenance

A. A property owner using water on property pursuant to a landscape plan approved pursuant to this Chapter shall prepare a maintenance schedule for the landscaping and irrigation system on the project. The schedule shall provide for:

1. Routine inspection to guard against Runoff and erosion, and detect plant or irrigation system failure;
2. Replacement of dead, dying and diseased vegetation;
3. Eradication of Invasive Species;
4. Repairing the irrigation system and its components;
5. Replenishing Mulch;
6. Soil amendment when necessary to support and maintain healthy plant growth;
7. Fertilizing, pruning and weeding and maintaining Turf areas; and
8. Maintenance to avoid obstruction of motorists' view. The schedule shall also identify who will be responsible for maintenance.

B. A person receiving a landscape approval that the City issued pursuant to this Chapter shall:

1. Maintain and operate the landscaping and irrigation system on the property consistent with the MAWA.
2. Maintain the irrigation system to meet or exceed Irrigation Efficiency necessary to meet MAWA.
3. Replace broken or malfunctioning irrigation system components with components of the same materials and specifications, their equivalent or better.
4. Ensure that when vegetation is replaced, replacement plantings are representative of the Hydrozone in which the plants were removed and are typical of the water use requirements of the plants removed, provided that the replaced vegetation does not result in mixing high water use plants with low water use plants in the same Hydrozone.

17.41.210 Water Use Authorization Modification

- A. A person may submit a request to modify the water use authorization established by this Chapter on a form provided by the Director.
- B. An applicant requesting modification of an authorization shall comply with Sections 17.41.080 to 17.41.120, inclusive.

17.41.220 Certificate of Completion

- A. Each project applicant issued a landscape approval pursuant to this Chapter shall submit:
 1. A signed certificate of completion, under penalty of perjury, on a form provided by the Director within 10 days after installation.
 - a. The certificate shall include a statement verifying that the landscaping and irrigation were installed as allowed in the approved landscape and irrigation plan, all approved soil amendments were implemented, the installed irrigation system is functioning as designed and approved, the irrigation control system was properly programmed in accordance with the irrigation schedule, and the person operating the system has received all required maintenance and irrigation plans.
 - b. Where there have been significant changes to the landscape plan during the installation of landscaping or irrigation devices or irrigation system components, the professional of record for the landscape design shall submit "as built" plans that show the changes.
 - c. The certificate shall be signed by the professional of record for the landscape design.
 2. An irrigation schedule that complies with Section 17.41.120, that describes the irrigation times and water usage for the project.

3. A landscaping and irrigation system maintenance schedule that complies with Section 17.41.200.

4. A soil management report that complies with Section 17.41.080, if the applicant did not submit the report with the landscape documentation package.

17.41.230 Waste Water Prevention and Enforcement

A. Water waste prevention and enforcement is regulated by Chapter 8.94 of the Poway Municipal Code.

B. Nothing herein prevents the City from inspecting properties, in a manner allowed by law, to determine if violations of this Chapter have occurred.

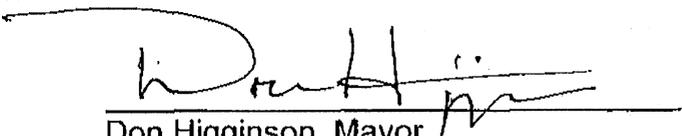
17.41.240 Fees

An applicant for a project subject to this Chapter shall include with the application, all fees established by the City to cover the City's cost to review an application, any required landscape documentation package, and any other documents the City reviews pursuant to the requirements of this Chapter.

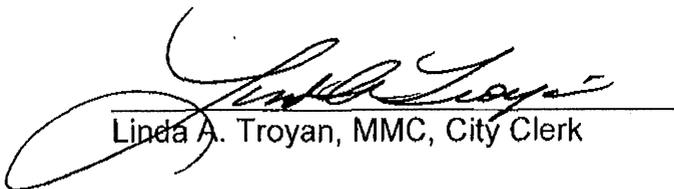
Section 4: This Ordinance shall be codified.

EFFECTIVE DATE: This Ordinance shall take effect and be in force thirty (30) days after the date of this passage; and before the expiration of fifteen (15) days after its passage, it shall be published once with the names and members voting for and against the same in the *Poway News Chieftain*, a newspaper of general circulation published in the City of Poway.

Introduced and first read at a regular meeting of the City Council of the City of Poway held this 1st day of December 2009, and thereafter PASSED AND ADOPTED at a regular meeting of said City Council held the 15th day of December 2009.


Don Higginson, Mayor

ATTEST:


Linda A. Troyan, MMC, City Clerk

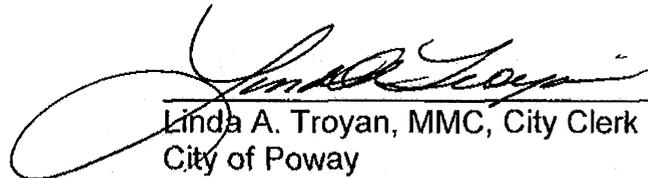
I, Linda A. Troyan, MMC, City Clerk of the City of Poway, do hereby certify that the foregoing Ordinance No. 700, was duly adopted by the City Council at a meeting of said City Council held on the 15th day of December 2009, and that it was so adopted by the following vote:

AYES: BOYACK, CUNNINGHAM, REXFORD, KRUSE, HIGGINSON

NOES: NONE

ABSENT: NONE

DISQUALIFIED: NONE



Linda A. Troyan, MMC, City Clerk
City of Poway