



Planning and Building Agency
 Planning Division
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INFORMATION SHEET FOR WATER CONSERVATION ORDINANCE

All projects are required to submit the necessary water ordinance forms **unless the total landscape area for the site is less than 2,500 square feet of landscaping**. The total amount of landscaped area should be shown on the landscape plan in square feet so any exemption can be recorded as a prerequisite to preparing the water ordinance forms.

The following calculations are required in completing the **Water Conservation Concept Statement**. The first four lines of the form are self-explanatory.

Item 1 is the **Maximum Applied Water Allowance (MAWA)** calculated in gallons of water per year and for 100 cubic feet per year*. Use the formula per Section 41-1504 Definitions of the ordinance which reads as follows:

$$\text{MAWA} = (\text{ETo})^{**} (0.7) (\text{LA}) (0.62)$$

* 100 cubic feet per year equals 748 gallons

** The ETo (Reference Evapotranspiration) for Santa Ana is 48.2 inches

The following example is given to show how the MAWA is calculated using a hypothetical project with 2,850 square feet of landscaped area (**LA**).

$$\text{MAWA} = (48.2 \text{ inches}) (0.7) (2,850) (0.62) =$$

$$48.2 \times .7 = 33.74 \times 2,850 = 96,159 \times .62 = 59,619 \text{ gallons/year}$$

$$\text{Calculate } 100 \text{ cu. ft./yr.: } 59,619/748 = 79.7 \text{ cu. ft./year}$$

Item 2 is the **Estimated Applied Water Use** for the project. This figure may not exceed the Maximum Applied Water Allowance (MAWA). The Estimated Applied Water Use is calculated from the amount of water recommended in the irrigation schedule.

The Estimated Total Water Use for the entire landscaped areas equals the sum of the Estimated Water use of all hydrozones in that landscaped area. The formula used for calculation is:

$$\text{EAWU} = \frac{(\text{ETo}) (\text{K}_L) (\text{LA}) (0.62)}{(\text{IE})}$$

EAWU = Estimated Applied Water Use (gallons per year)

ETo = 48.2 inches

K_L = Landscape Coefficient (refer to Section 41-1504 Definitions)

LA = Landscaped area (square feet)

(0.62) = Conversion factor

IE = Irrigation efficiency (minimum factor is 0.71)

There are two documents that are essential to working on these calculations. They are the **State Model Water Efficient Landscape Ordinance Ref. 2006** and the **WUCOLS Project (Water Use Classification of Landscaped Species)**. The latter is used for determining plant factors for the Estimated Applied Water Use. Both of these publications may be obtained from the office address given below:

Water Conservation Office
Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236
Phone (916) 653-2980

A Landscape Documentation Package shall be submitted for review and approval of all landscape projects subject to the Water Conservation Ordinance. The Package shall include certification by a licensed professional in the State of California stating the design and water use calculations are in compliance with this ordinance. Further, the plan shall include:

Item 3 is the **Landscape Design Plan** which is self-explanatory.

Item 4 is the **Irrigation Design Plan**. Note that the flow rate per valve is required.

Item 5 is the **Irrigation Schedule**. This should be an easy to read program established for the time clock so that field personnel who are maintaining the property can change the clock according to the schedule.

Item 6 is the **Maintenance Schedule**, a set of standards on how and when to properly fertilize, prune, provide pest control, etc. for the plant material.

Item 7 is the **Landscaped Irrigation Audit Schedule**. Some type of informal audit or test will be conducted at the time the project is completed so that the landscape architect, contractor, and owner, prior to signing the **Certificate of Compliance**, can be certain that the system does meet the calculations submitted. No formal water audit is required unless the project exceeds its allowed MAWA and the Water Engineering section determines from the amount of water used that an audit is necessary.

Item 8 is a **Grading Design Plan** usually prepared by a Civil Engineer. It shows how the property will be drained and any slopes, berms, etc. that require special design. This information is required as part of *Item 4* if the project has slopes, berms, or is located in a flood plain area.

Item 9 is a **Soils Management Report**. This item is not required for most projects where plant materials have been growing previously. In cases where major construction occurs, drainage was a problem, plant material showed signs of nutrient deficiency, or the area was agricultural, soils testing is strongly advised.

The second form, **Certificate of Compliance**, is basically a recap of the data submitted on the **Water Conservation Concept Statement**. This form is completed at the end of construction/installation and must be submitted prior to final inspection of the site by the Planning Division. The signatures of the landscape architect, contractor, and the owner are necessary.

Refer to the Ordinance and its definition section for further information.