



## City of Daly City Landscape Project Application



**On March 22, 2010, the City of Daly City adopted a Water Conservation in Landscaping Ordinance. The provisions of this Ordinance apply to all of the following landscape projects:**

- ***Tier 1 Landscapes:*** All new construction and rehabilitated landscapes with irrigated landscape areas between 1,000 square feet and 2,500 square feet requiring a building or landscape permit, plan check or design review, or requiring new or expanded water service.
- ***Tier 2 Landscapes:*** All new construction and rehabilitated landscapes with irrigated landscape areas equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or design review or requiring new or expanded water service.
- Existing landscapes, including existing cemeteries, installed before April 21, 2010 and over one acre in size.
- New and rehabilitated cemeteries.

**The provisions of this Ordinance do not apply to:**

- New construction and rehabilitated landscapes with irrigated landscape areas less than 1,000 square feet or that do not require a building or landscape permit, plan check or design review, or new or expanded water service;
- Landscapes, or portions of landscapes, that are only irrigated for an establishment period;
- Registered local, state or federal historical sites where landscaping establishes a historical landscape style, as determined by a public board or commission responsible for architectural review or historic preservation;
- Ecological restoration or mined-land reclamation projects that do not require a permanent irrigation system; or
- Community gardens or plant collections, as part of botanical gardens and arboretums open to the public, agricultural uses, commercial nurseries and sod farms.

**A complete Landscape Project Application includes the following elements:**

- Project Information;
- Outdoor Water Use Efficiency Checklist;
- Water Budget Calculations, if applicant selects to use a water budget approach rather than comply with the turf area limitations or specified plant type restrictions;
- Landscape and Irrigation System Design Plans; and
- Landscape Audit Report.

**Please contact the Daly City Planning Division for any questions related to this application at 650.991.8033**

# OUTDOOR WATER USE EFFICIENCY CHECKLIST

## To Be Completed by Applicant

I certify that the subject project meets the specified requirements of the Water Conservation in Landscaping Ordinance.

Signature \_\_\_\_\_

Date \_\_\_\_\_

### Project Information

Single Family  Multi-Family  Commercial  Institutional  Irrigation only  Industrial  Other:

Applicant Name (print): \_\_\_\_\_

Contact Phone #: \_\_\_\_\_

Project Site Address: \_\_\_\_\_

**Agency Review**

Project Area (sq.ft. or acre): \_\_\_\_\_

# of Units: \_\_\_\_\_

# of Meters: \_\_\_\_\_

**(Pass) (Fail)**

For a single-family project, or a single-family development project, enter this information on an average, per unit basis. For all other projects, input an aggregate value for the entire project.

Total Landscape Area (sq.ft.): \_\_\_\_\_

Tier 1 (1,000 - 2,500 sq.ft.)

Tier 2 (> 2,500 sq.ft.)

Turf Irrigated Area (sq.ft.): \_\_\_\_\_

Non-Turf Irrigated Area (sq.ft.): \_\_\_\_\_

Special Landscape Area (SLA) (sq.ft.): \_\_\_\_\_

Water Feature Surface Area (sq.ft.): \_\_\_\_\_

Landscape Parameter	Requirements	Project Compliance	
<b>Turf</b>	Less than 25% of the landscape area is turf	<input type="checkbox"/> Yes <input type="checkbox"/> No, See Water Budget	<input type="checkbox"/> <input type="checkbox"/>
	All turf is planted on slopes < 25%	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
<b>Non-Turf</b>	At least 80% of non-turf area is native or low water use plants	<input type="checkbox"/> Yes <input type="checkbox"/> No, See Water Budget	<input type="checkbox"/> <input type="checkbox"/>
	<b>Hydrozones</b>	Plants are grouped by Hydrozones	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Mulch</b>	At least 2-inches of mulch on exposed soil surfaces	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
	<b>Irrigation System Efficiency</b>	70% ETo (100% ETo for SLAs)	<input type="checkbox"/> Yes
No overspray or runoff		<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
<b>Irrigation System Design</b>	System efficiency > 70%	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
	Automatic, self-adjusting irrigation controllers	<input type="checkbox"/> No, not required for Tier 1 <input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
	Moisture sensor/rain sensor shutoffs	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
	No sprayheads in < 8-ft wide area	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
<b>Irrigation Time</b>	System only operates between 8 PM and 10 AM	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
	<b>Metering</b>	Separate irrigation meter	<input type="checkbox"/> No, not required because < 5,000 sq.ft. <input type="checkbox"/> Yes
<b>Swimming Pools / Spas</b>		Cover highly recommended	<input type="checkbox"/> Yes <input type="checkbox"/> No, not required
	<b>Water Features</b>	Recirculating	<input type="checkbox"/> Yes
Less than 10% of landscape area		<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
<b>Documentation</b>	Checklist	<input type="checkbox"/> Yes	<input type="checkbox"/> <input type="checkbox"/>
	Landscape and Irrigation Design Plan	<input type="checkbox"/> Prepared by applicant <input type="checkbox"/> Prepared by professional	<input type="checkbox"/> <input type="checkbox"/>
		Water Budget (optional)	<input type="checkbox"/> Prepared by applicant <input type="checkbox"/> Prepared by professional
<b>Audit</b>	Post-installation audit completed		<input type="checkbox"/> Completed by applicant <input type="checkbox"/> Completed by professional

# OUTDOOR WATER USE EFFICIENCY CHECKLIST

## To Be Completed by Agency

<p><b>Auditor:</b></p> <p><b>Materials Received and Reviewed:</b></p> <p><input type="checkbox"/> Outdoor Water Use Efficiency Checklist</p> <p><input type="checkbox"/> Water Budget</p> <p><input type="checkbox"/> Landscape Plan</p> <p><input type="checkbox"/> Post-Installation Audit</p> <p><b>Date Reviewed:</b></p> <p><input type="checkbox"/> Follow up required (explain):</p> <p><b>Date Resubmitted:</b></p> <p><b>Date Approved:</b></p> <p><b>Dedicated Irrigation Meter Required:</b></p> <p><b>Meter sizing:</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="background-color: #cccccc;">Material Distributed to Applicant</th> </tr> <tr> <td> <input type="checkbox"/> Water Conservation in Landscaping Ordinance  <input type="checkbox"/> Outdoor Water Use Efficiency Checklist  <input type="checkbox"/> Water Budget Calculation Worksheets  <input type="checkbox"/> Plant List  <input type="checkbox"/> Other:                 </td> </tr> <tr> <th style="background-color: #cccccc;">Measures Recommended to Applicant</th> </tr> <tr> <td> <input type="checkbox"/> Drip irrigation  <input type="checkbox"/> Self-adjusting Irrigation Controller  <input type="checkbox"/> Plant palate  <input type="checkbox"/> Three (3) inches of mulch  <input type="checkbox"/> Soil amendment (e.g., compost)  <input type="checkbox"/> Grading  <input type="checkbox"/> Pool and/or spa cover  <input type="checkbox"/> Dedicated irrigation meter  <input type="checkbox"/> Other:                 </td> </tr> </table>	Material Distributed to Applicant	<input type="checkbox"/> Water Conservation in Landscaping Ordinance <input type="checkbox"/> Outdoor Water Use Efficiency Checklist <input type="checkbox"/> Water Budget Calculation Worksheets <input type="checkbox"/> Plant List <input type="checkbox"/> Other:	Measures Recommended to Applicant	<input type="checkbox"/> Drip irrigation <input type="checkbox"/> Self-adjusting Irrigation Controller <input type="checkbox"/> Plant palate <input type="checkbox"/> Three (3) inches of mulch <input type="checkbox"/> Soil amendment (e.g., compost) <input type="checkbox"/> Grading <input type="checkbox"/> Pool and/or spa cover <input type="checkbox"/> Dedicated irrigation meter <input type="checkbox"/> Other:
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**Comments:**

**Selected Definitions:**

Tier 1	New construction and rehabilitated landscapes with irrigated landscape areas between 1,000 and 2,500 square feet requiring a building or landscape permit, plan check or design review, or new or expanded water service.
Tier 2	New construction and rehabilitated landscapes with irrigated landscape areas greater than 2,500 square feet requiring a building or landscape permit, plan check or design review.
ETo	Reference evapotranspiration means the quantity of water evaporated from a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of estimating water budgets so that regional differences in climate can be accommodated.
SLA	Special Landscaped Area. Includes edible plants, areas irrigated with recycled water, surface 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.
Professional	Professional is a "certified professional" or "authorized professional" that is a certified irrigation designer, a certified landscape irrigation auditor, a licensed landscape architect, a licensed landscape contractor, a licensed professional engineer, or any other person authorized by the state to design a landscape, an irrigation system, or authorized to complete a water budget, irrigation survey or irrigation audit.
Water Feature	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).

## WATER BUDGET CALCULATION WORKSHEETS

### SECTION A. HYDROZONE INFORMATION TABLE

Please complete the hydrozone table(s) for each hydrozone. Use as many tables as necessary to provide the square footage of landscape area per hydrozone.

Hydrozone (a)	Zone or Valve Number	Irrigation Method (b)	Area (Sq. Ft.)	Percent (%) of Landscape Area
<b>Total</b>				<b>100%</b>

**(a) Hydrozone:**  
*HW = High Water Use Plants*  
*MW = Moderate Water Use Plants*  
*LW = Low Water Use Plants*

**(b) Irrigation Method:**  
*MS = Micro-spray*  
*S = Spray*  
*R = Rotor*  
*B = Bubbler*  
*D = Drip*  
*O = Other*

## WATER BUDGET CALCULATION WORKSHEETS

### SECTION B. WATER BUDGET CALCULATIONS

#### **Section B1. Maximum Applied Water Allowance (MAWA)**

The project's Maximum Applied Water Allowance shall be calculated using this equation:

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

where:

MAWA = Maximum Applied Water Allowance (gallons per year)

ETo = Reference Evapotranspiration (inches per year)

0.62 = Conversion factor (to gallons per square foot)

0.7 = ET Adjustment Factor (ETAF)

LA = Landscaped Area includes Special Landscape Area (square feet)

0.3 = the additional ET Adjustment Factor for Special Landscape Area (1.0 - 0.7 = 0.3)

SLA = Portion of the landscape area identified as Special Landscape Area (square feet)

**Maximum Applied Water Allowance = \_\_\_\_\_ gallons per year**

Show calculations.

#### **Effective Precipitation (Eppt)**

If considering Effective Precipitation, use 25% of annual precipitation. Use the following equation to calculate Maximum Applied Water Allowance:

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

**Maximum Applied Water Allowance = \_\_\_\_\_ gallons per year**

Show calculations.

WATER BUDGET CALCULATION WORKSHEETS

SECTION B. WATER BUDGET CALCULATIONS

**Section B2. Estimated Total Water Use (ETWU)**

The project's Estimated Total Water Use is calculated using the following formula:

$$ETWU = (ET_o)(0.62) \left( \frac{PF \times HA}{IE} + SLA \right)$$

where:

- ETWU = Estimated total water use per year (gallons per year)
- ET<sub>o</sub> = Reference Evapotranspiration (inches per year)
- PF = Plant Factor from WUCOLS
- HA = Hydrozone Area [high, medium, and low water use areas] (square feet)
- SLA = Special Landscape Area (square feet)
- 0.62 = Conversion Factor (to gallons per square foot)
- IE = Irrigation Efficiency (minimum 0.70)

**Hydrozone Table for Calculating ETWU**

Please complete the hydrozone table(s). Use as many tables as necessary.

Hydrozone	Plant Water Use Type(s)	Plant Factor (PF)	Area (HA) (square feet)	PF x HA (square feet)

**Estimated Total Water Use = \_\_\_\_\_ gallons**

Show calculations.

## Reference Websites

- General information on water-efficient landscapes:  
[http://www.water.ca.gov/wateruseefficiency/docs/water\\_efficient\\_landscapes.pdf](http://www.water.ca.gov/wateruseefficiency/docs/water_efficient_landscapes.pdf)
- Guide for estimating the water needs of plants:  
<http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf>
- Residential landscapes:
  - <http://www.water.ca.gov/wateruseefficiency/docs/ResidentialLandscapes-2005.pdf>
  - <http://www.water.ca.gov/wateruseefficiency/docs/toolkit.pdf>
- Parks and Commercial landscapes:  
<http://www.water.ca.gov/wateruseefficiency/docs/parkscomm.pdf>
- Plant recommendations:  
[http://www.ebmud.com/conserving\\_&\\_recycling/plant\\_book/default.htm](http://www.ebmud.com/conserving_&_recycling/plant_book/default.htm)
- California invasive plant material list and recommendations [www.cal-ipc.org](http://www.cal-ipc.org)
- Reference evapotranspiration information:  
<http://www.cimis.water.ca.gov/cimis/welcome.jsp>
- Irrigation controller information:  
[http://www.water.ca.gov/wateruseefficiency/docs/irrigation\\_controllers\\_0903.pdf](http://www.water.ca.gov/wateruseefficiency/docs/irrigation_controllers_0903.pdf)
- BayFriendly gardening practices: [www.StopWaste.org](http://www.StopWaste.org)
- BAWSCA's Water Wise Gardening information: [www.bawasca.org](http://www.bawasca.org)
- Guides to pest control and more: [www.ourwaterourworld.org](http://www.ourwaterourworld.org)