

## Section A: Hydrozone Information Table

Please complete the hydrozone table by entering correct information for each hydrozone. Use as many tables as necessary.

ZONE OR VALVE #	PLANT WATER USE	PLANT FACTOR	SUN EXPOSURE	IRRIGATION METHOD	AREA (sq ft)	AREA x PF
<b>TOTAL (Overall Project)</b>						

### PLANT WATER USE

and corresponding "Plant Factor"

- H = High (0.7–1.0)
- M = Medium (0.4–0.6)
- L = Low/ Very Low (0.1–0.3)

Plant water use values shall be based on WUCOLS, or other credible locally relevant resource. Numerical plant factor values shall be determined by landscape professional, factoring in site-specific soil and microclimate conditions.

### SUN EXPOSURE

- H = High: Sun all day/ almost all day
- M = Medium: Mixture of sun and shade
- L = Low: Shade all day/ almost all day

Sun exposure determinations should be based generally on sun/ shade patterns during months of April through October.

### IRRIGATION METHOD

- B = Bubblers
- D = Drip
- M = Micro-Spray
- R = Rotor
- S = Spray
- O = Other

## Section B: Water Budget Calculations

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

The project's maximum applied water allowance shall be calculated using the following 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 (acre-inches to gallons)

0.7 = evapotranspiration adjustment factor (ETAF)

LA = landscape area including SLA (square feet)

SLA = special landscape area (square feet)

0.3 = additional water allowance for SLA

#### Enter Variable Values:

ETo =  (See ETo map and enter appropriate value. 45.0 is default value.)

LA =  (from hydrozone table)

SLA =  (if applicable)

MAWA =

### Effective Precipitation (Eppt)

Applicant has the option of applying effective precipitation, which is 25% of average annual precipitation (inches). The following equation may be used to calculate MAWA.

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

Eppt =

MAWA =

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

The project's estimated total water use shall be calculated using the following equation:

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

Where:

ETWU= estimated total water use (gallons per year)

ETo = reference evapotranspiration (inches per year)

0.62 = conversion factor (acre-inches to gallons)

PF = plant factor (water use, from WUCOLS)

HA = hydrozone area, excluding SLA (square feet)

IE = irrigation efficiency (minimum 0.7)

SLA = special landscape area (square feet)

### Variable Values:

ETo =  (See ETo map. 45.0 is default value.)

PF =  (aggregate, from hydrozone table)

HA =  (landscape area from hydrozone table, less SLA, if applicable)

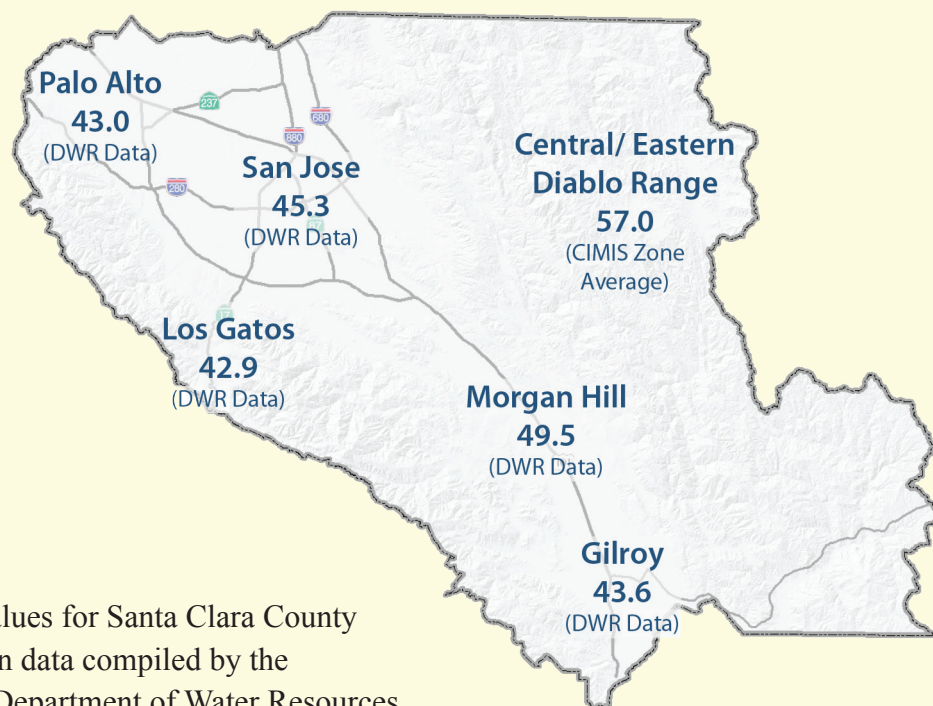
IE =  (0.7 is default minimum. A higher value may be entered, but must be accompanied by supporting documentation of system irrigation efficiency.)

SLA =

ETWU =

## Reference Evapotranspiration

Reference evapotranspiration (ET<sub>o</sub>) is defined in Section B33-3 as: “A standard measurement of environmental parameters that affect the water use of plants.” It is a quantitative value representing the annual loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues). It is an important factor in determining how much water plants need for healthy growth.



The ET<sub>o</sub> values for Santa Clara County are based on data compiled by the California Department of Water Resources, through the [California Irrigation Management Information Systems \(CIMIS\) program](#). The variation in values throughout the county reflects differences in temperature, humidity, cloud cover, wind and shade. For instance, the lowest value (42.9) comes from a monitoring station in Los Gatos, where the adjacent Santa Cruz mountains block the late-afternoon/ early-evening sun.

The ET<sub>o</sub> value chosen for a given landscape project site should be representative of the geographic area of the project, including the influencing factors described above. The default ET<sub>o</sub> value for projects in unincorporated Santa Clara County shall be 45.0.