

Calculating Outdoor Water Usage for a Landscape Design

Every home in Sterling Ranch has an outdoor water use budget based on the overall lot square footage. For water offered at the lowest, Tier 1 billing rate, see Table 1 below.

- 30% of the outdoor water budget is used by the builder for the front yard irrigation
- 70% of the overall outdoor water budget remains to irrigate the backyard plants
- It is recommended to not design a landscape that requires 100% of the budget to allow for seasons with high temperatures and little precipitation conditions so that the Tier 1 billing rate is not exceeded.

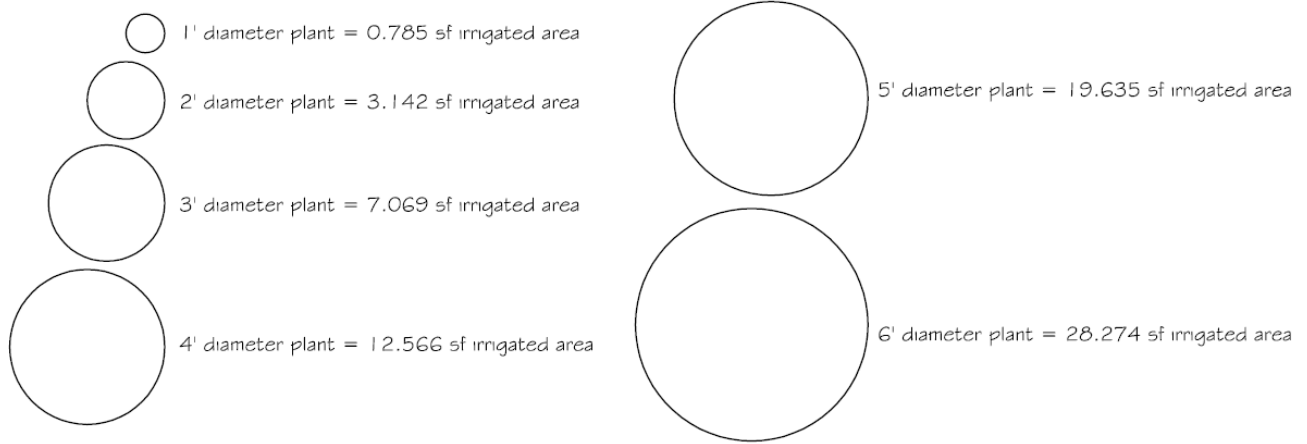
TABLE 1: OUTDOOR WATER BUDGET BY LOT SIZE and PER MONTH USAGE

Lot Size (square feet) * without Tree Lawn			Total Outdoor Water Budget (gallons/year)	BUDGET BY MONTH – TIERED RATES APPLY FOR EXCESS USE IN ANY MONTH						
				WATER IS CHARGED IN INCREMENTS OF 1000 GALLONS (BILLING UNIT) Example: 7,410 gallons = 7.4 Billing Units Tier One Rate of \$8.20/1000 gallons x 7.4 Billing Units = \$60.68						
				APR	MAY	JUN	JUL	AUG	SEP	OCT
-0-	TO	3,000	10,000	700	1,600	1900	2100	1,900	1,300	500
3,001	TO	4,000	12,500	875	2,000	2,375	2,625	2,375	1,625	625
4,001	TO	5,000	15,000	1,050	2,400	2,850	3,150	2,850	1,950	750
5,001	TO	6,000	27,000	1,890	4,320	5,130	5,670	5,130	3,510	1,350
6,001	TO	7,000	32,000	2,240	5,120	6,080	6,720	6,080	4,160	1,600
7,001	TO	8,000	39,000	2,730	6,240	7,410	8,190	7,410	5,070	1,950
8,001	TO	11,000	49,000	3,430	7,840	9,310	10,290	9,310	6,370	2,450
11,001	TO	20,000	60,000	4,200	9,600	11,400	12,600	11,400	7,800	3,000
20,001	TO	30,000	80,000	5,600	12,800	15,200	16,800	15,200	10,400	4,000
30,001	TO	70,000	100,000	7,000	16,000	19,000	21,000	19,000	13,000	5,000
Over 70,001			100,000	7,000	16,000	19,000	21,000	19,000	13,000	5,000

Calculate Outdoor Water Use

Determine which plants in the plan are High Water, Moderate Water, and Low Water usage. Local nursery websites are a great resource to help understand the water needs of plants. Sod, vegetable gardens, and water features are always high water usage.

Then, begin calculating the irrigated square footage (sf) of the plant by using the sf of each plant at full growth. See calculations below for some typical plant sizes. Trees are the exception to the rule. As water is only delivered around the trunk of the tree, use a 3’ diameter irrigated area for calculations.



High Water Use: plant irrigated sf x 20 gals/sf = Total gallons needed for the season
 Moderate Water Use: plant irrigated sf x 10 gals/sf = Total gallons needed for the season
 Low Water Use: plant irrigated sf x 6 gals/sf = Total gallons needed for the season

For example, a Moderate Water use plant at 2' diameter full growth:
 3.142 sf irrigated area x 10 gals/sf = 31.42 gallons needed for the season.

Complete Water-Use Calculation Chart

The final step is to enter all your irrigated sf calculations into the Water-Use Calculation Chart shown below to determine the total gallons needed by season. The TOTAL gallons needed should be 70% or less of the overall outdoor water budget.

Water-Use Calculations:			
Plant Water Need Category	sf	gals/sf	gals/season
High Water Use		20	
Moderate Water Use		10	
Low Water Use		6	
TOTAL gallons needed:			
TOTAL square feet (sf):			
Average gals/sf/season, ALL ZONES (Total gals/Total sf):			