

DESERT BACK YARD

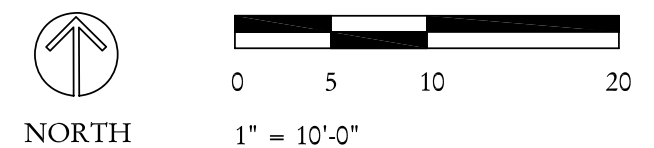
June 2009

SAMPLE PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME
LARGE TREES		
	Cercidium floridum Olea e. 'Swan Hill'	Blue Palo Verde Olive
SMALL TREES		
	Chilopsis linearis Cercis occidentalis	Desert Willow Western Redbud
SHRUBS		
	Rhus ovata Simmondsia chinensis Caesalpinia gilliesii	Sugar Bush Jojoba NCN
	Cistus macrocarpa Leucophyllum frutescens Hesperaloe parviflora	Rockrose Texas Ranger Red Yucca
AGAVE, SUCCULENTS, YUCCA AND GRASSES		
	Agave americana Fouquieria splendens Justicia californica Yucca whipplei	Century Plant Ocotillo Chuparosa Our Lord's Candle
	Agave parryi Dasylirion wheeleri	Perry's Agave Desert Spoon
	Festuca ovina glauca Eriogonum umbellatum Castilleja angustifolia	Blue Fescue Sulfur Flower Desert Paintbrush
GROUNDCOVER RECREATIONAL/ACTIVE		
	Carex texensis* Turf *	Sedge* NCN*
* Can tolerate light traffic		
GROUNDCOVER SOCIAL/PASSIVE		
	Baccharis pilularis Santolina chamacyporissus Verbena peruviana	Coyote Bush Lavendar Cotton Verbena
HARDSCAPE		
	Stepping Stones Boulders	DG Sand-set Brick

SUNSET ZONES - 11, 13

Note: Some plants are suitable for high desert, others for low desert. Plant palette should be modified as necessary to meet specific climatic conditions.



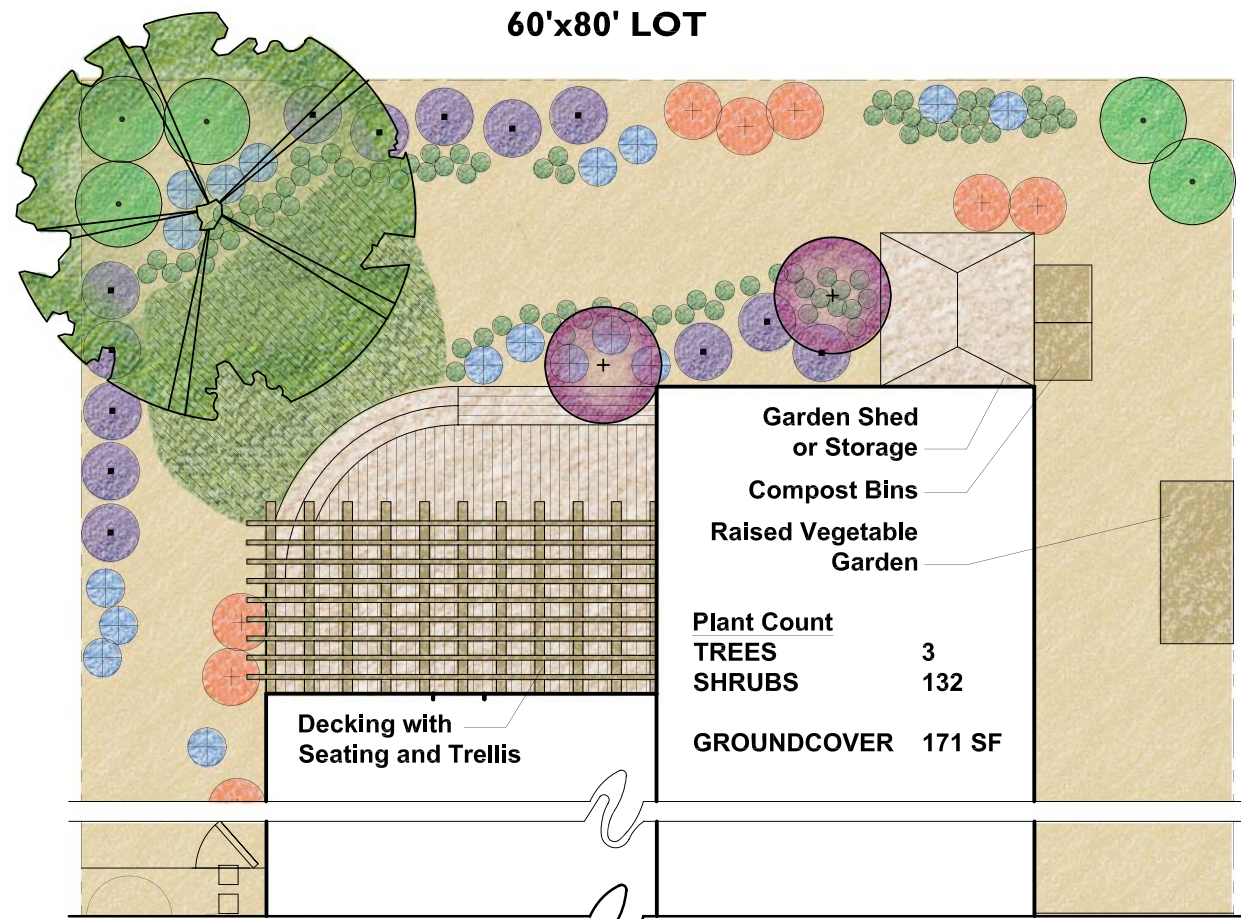
Note: For additional information regarding design and installation, please see back yard template and CUWCC's Water Smart Landscape Checklist at www.cuwcc.org.
Funded by the U.S. Bureau of Reclamation, Lower Colorado Region, Southern California Office.

"TYPICAL" SIZED LOT HOUSE

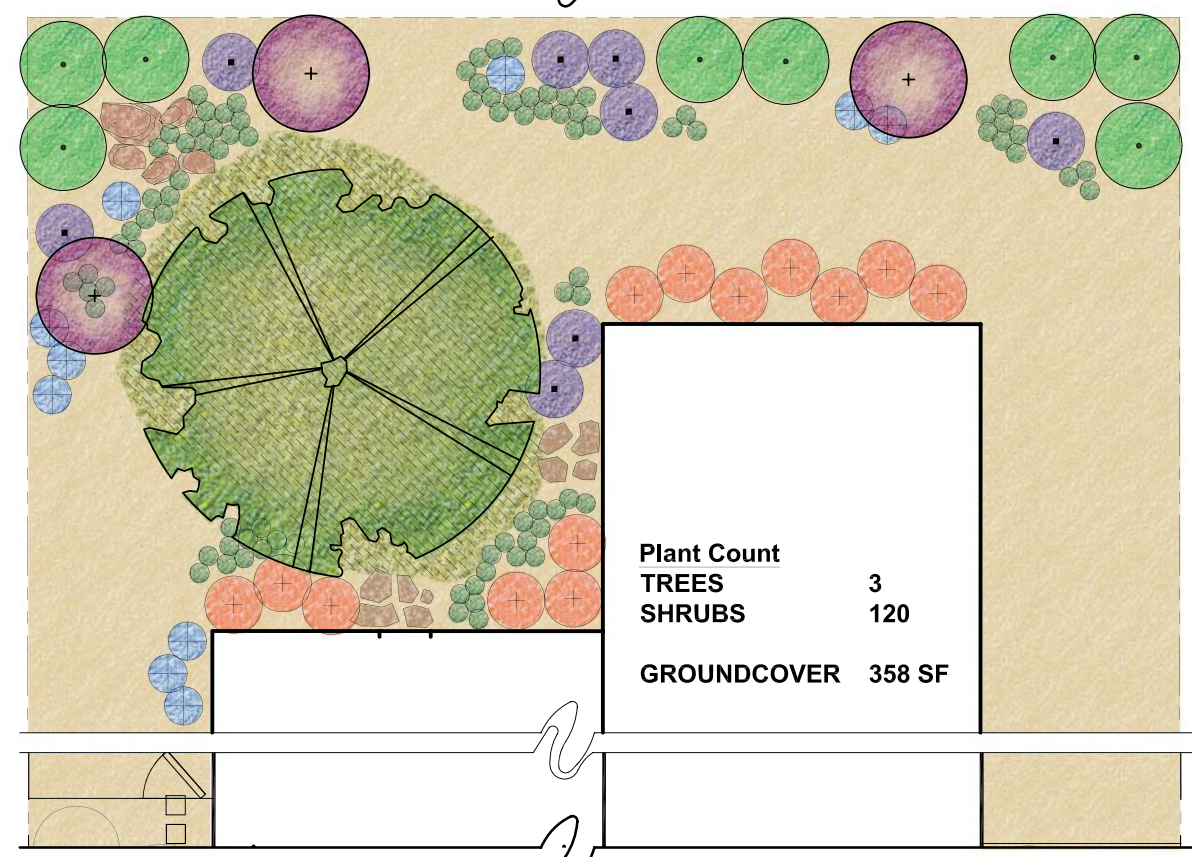
NORTH FACING REAR GARDEN, TYPICAL

60'x80' LOT

RECREATION/ACTIVE



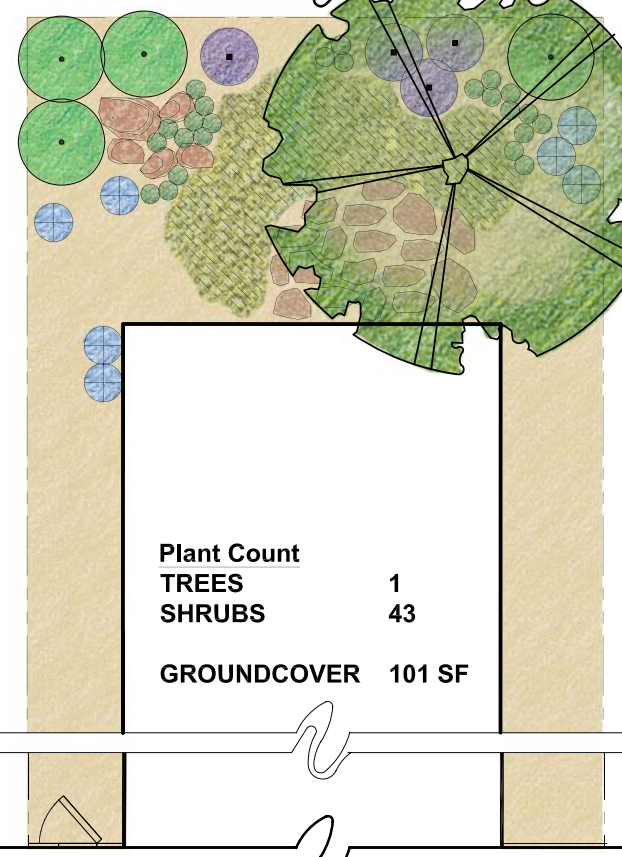
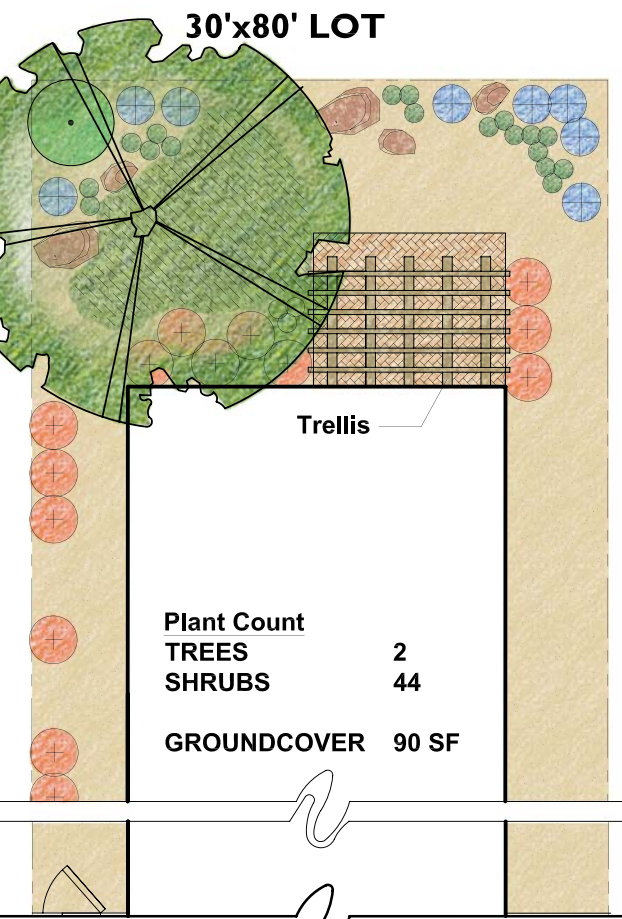
SOCIAL/PASSIVE



ZERO-LOT LINE HOUSE

NORTH FACING REAR GARDEN, TYPICAL

30'x80' LOT



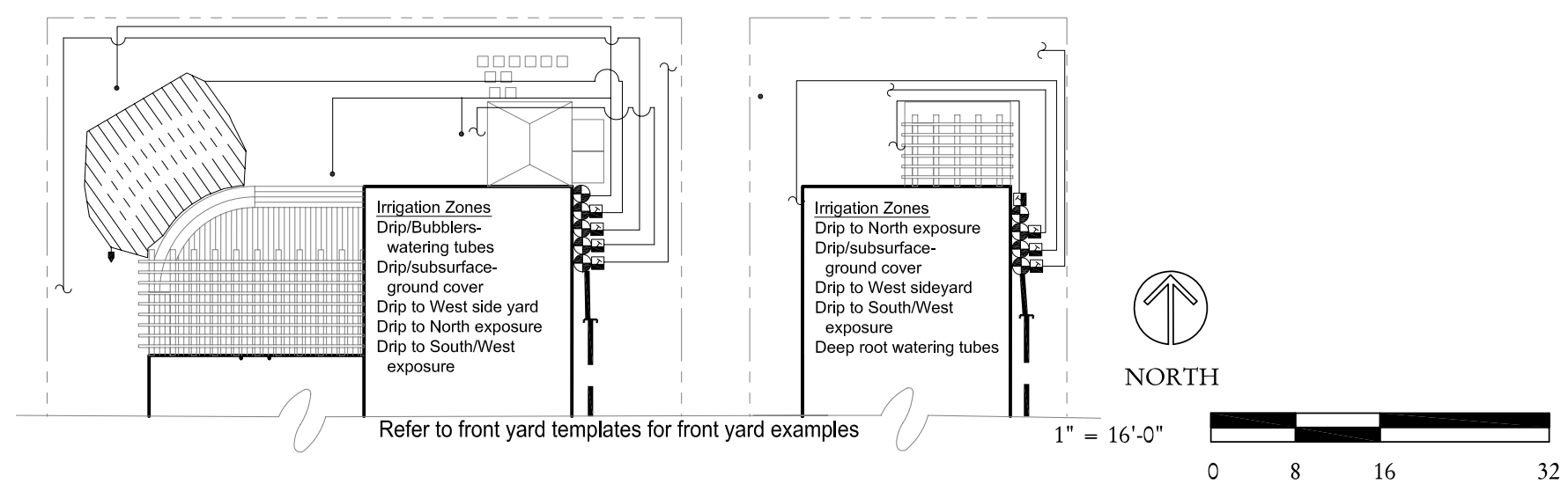


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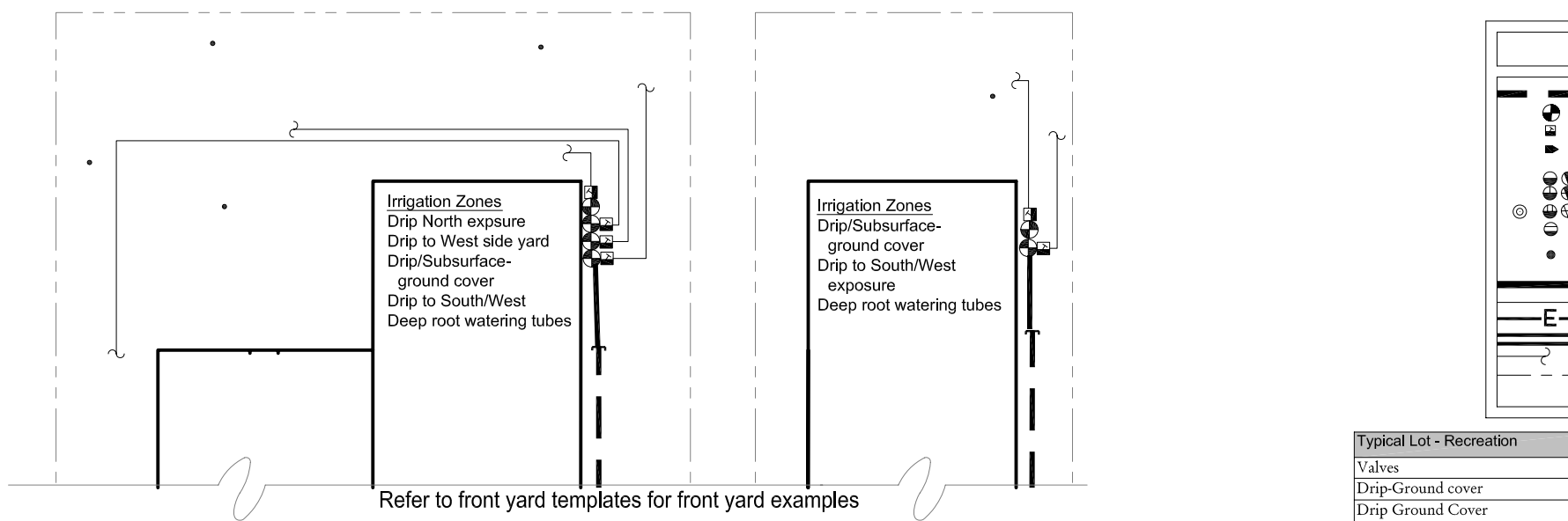
RECREATION/ACTIVE

"TYPICAL" SIZED LOT HOUSE
NORTH FACING REAR GARDEN, TYPICAL

ZERO-LOT LINE HOUSE
NORTH FACING REAR GARDEN, TYPICAL



SOCIAL/PASSIVE



BACK YARD IRRIGATION SYSTEM LEGEND

	Existing irrigation main stub-out-1"	-Connect to stubout, station wires and common in valve box	
	Remote Control Valves	-Below grade in valve box with 2 cu feet of gravel below	
	Drip control assembly	-120 mesh filter and 40 psi regulator where psi is excessive	
	Flush valve/air relief valve	-Manual ball valve and air relief valve as required	
	6" Spray heads (12" from fence)	-Matched precip with check valves-12H,T,Q,ADJ	-12' radius
	6" Spray heads (12" from fence)	-Matched precip with check valves-10H,T,Q	-10' radius
	6" Spray heads (12" from fence)	-Matched precip with check valves-8F,H,T,Q	-8' radius
	6" Spray heads (12" from fence)	-Matched precip with check valves-15SST,EST	-3' X 10'
	Deep root watering tube	-Use 1 GPM bubbler as alternate to hand watering	
	Irrigation main-1"	-1120/Schedule 40 PVC pipe	-18" cover
	Irrigation lateral	-1120/Class 200 PVC pipe	-12" cover
	Electrical conduit-1"	-1120/SCHEDULE 40 PVC PIPE	-24" cover
	Sleeving-3"	-1120/Schedule 40 PVC pipe	-24" cover
	To drip irrigation	-Point source or multi-outlet emitters	- 6" cover
	Inline subsurface drip-1/2"	-LDPE with inline emitters 12" on center	- 4" cover

PRECIP = Precipitation Rate is the application rate of irrigation in inches per hour
Assumed precip: Spray heads - 1.8, Drip - .4, subsurface drip - 1.1, Deep root watering -8

MAWA = Maximum Annual Water Allotment (in gallons and based upon 70% of area historical annual ET)

ETo=Reference evapotranspiration is the quantity of water evaporated from the soil and transpired by the planting and is measured in inches per month.

ANN GAL - Annual gallons

RUNTIME = Total amount of minutes required for planting root depth in native soil

CYC = Total number of repeat cycles required for native soil

CYC TIME = Rounded minutes of each cycle to be repeated by "CYC allowing infiltration monthly number = number of times/month to apply runtime (refer to example below)

BASE SCHEDULE for established plant material with historical weather data (10 year average) and assumed precip. Note, if low precipitation heads or mini rotors are used in lieu of conventional spray heads, then the base run times will need to be extended to provide water down to the planting root zones.

SPRAY HEAD: Spray head with one of the following: standard matched precipitation spray nozzles-1.8"/hr, low precipitation nozzles - 1"/hr, or mini rotor nozzles-0.4"/hr

During establishment period, root depth is shallower, thus requiring more frequent irrigation with shorter run times, stretching out the frequency and extending the total runtimes as the planting matures and roots penetrate into native soil conditions over a 3-5 year span. Establishment irrigation frequency depends upon the time of year initial planting takes place.

Monthly example:
The number under the month indicates the number of times that zone needs to be irrigated during that month. For fractions of runtimes per month, multiply the # of CYC by the decimal (example: drip/ground cover requires .6 runtimes per month of March = .6 X 7(# of CYC)= 4 cycles of 23 minutes each (CYC). This would equate to 92 minutes total runtime one time during the month of March.

Backyards: Refer to backyard design templates for both social and recreation layout ideas.

Note: Some plants respond better to overhead spray while many others do better with drip. The irrigation design will need not only to take into consideration plant preferences, but also runoff and potential blockage where the planting grows in front of the spray heads. Drip and spray are both shown on the templates to show differences in system costs and projected water use.

Also see front yard templates.

Typical Lot - Recreation	Estimated Water Use-Blythe	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Drip-Ground cover	170	134	185	295	404	504	563	581	504	409	297	176	113	4,164
Drip Ground Cover	835	171	236	375	514	642	717	740	642	520	379	224	144	5,303
Non irrigated	595	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1600	305	421	670	918	1145	1280	1321	1145	929	676	399	257	9467
Estimated water use 9,467 gal/yr; MAWA = 64,822 gal/yr; projected water use = 15% of MAWA														
Zero Lot - Recreation	Estimated Water Use-Blythe	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Drip-Ground cover	90	71	98	156	214	267	298	308	267	216	157	93	60	2,205
Drip Ground Cover	375	77	106	168	231	288	322	332	288	234	170	100	65	2,381
Non irrigated	255	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	720	148	204	324	445	555	620	640	555	450	327	193	124	4586
Estimated water use 4,586 gal/yr; MAWA = 29,170 gal/yr; projected water use = 16% of MAWA														
Typical Lot - Social	Estimated Water Use-Blythe	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Drip-Ground cover	360	285	392	624	855	1067	1192	1230	1067	865	630	372	239	8,818
Drip Ground Cover	650	133	184	292	400	499	558	576	499	405	295	174	112	4,128
Non irrigated	590	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1600	418	576	916	1256	1566	1750	1806	1566	1270	924	546	351	12946
Estimated water use 12,946 gal/yr; MAWA = 64,822 gal/yr; projected water use = 20% of MAWA														
Zero Lot - Social	Estimated Water Use-Blythe	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Valves	SQ FT													
Drip-Ground cover	110	87	120	191	261	326	364	376	326	264	192	114	73	2,694
Drip Ground Cover	230	47	65	103	142	177	197	204	177	143	104	62	40	1,461
Non irrigated	380	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	720	134	185	294	403	503	562	580	503	408	297	175	113	4155
Estimated water use 4,155 gal/yr; MAWA = 29,170 gal/yr; projected water use = 14% of MAWA														