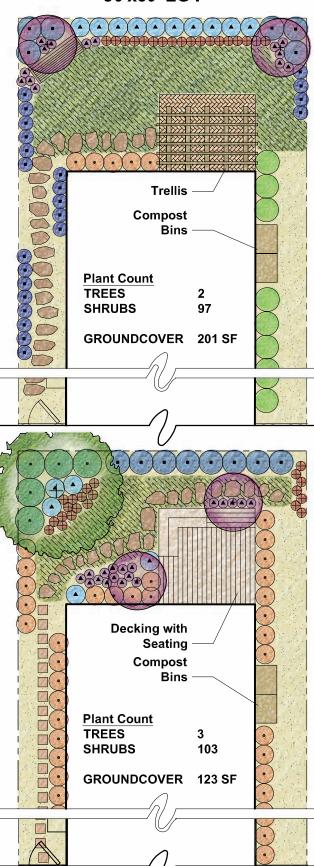
"TYPICAL" SIZED LOT HOUSE NORTH FACING REAR GARDEN, TYPICAL 60'x80' LOT RECREATION/ACTIVE **Garden Shed** or Storage **Compost Bins** Raised Vegetable Garden **Plant Count TREES** 3 **SHRUBS** 196 **GROUNDCOVER 410 SF** Decking with — **Seating and Trellis** Trellis Concrete **SOCIAL/PASSIVE** Band **Concrete Band or Raised Planter Compost Bins**-**Plant Count** TREES **SHRUBS** 262 **GROUNDCOVER 319 SF**

ZERO-LOT LINE HOUSE

NORTH FACING REAR GARDEN, TYPICAL

30'x80' LOT





SOUTHERN COASTAL **BACK YARD**

June 2009

SAMPLE PLANT LEGEND

SYMBOL **BOTANICAL NAME COMMON NAME**



LARGE TREES

Leptospermum laevigatum Australian Tea Tree Quercus tomentella Island Oak

SMALL TREES

Aloe barberae Arbutus unedo 'Elfin King' Dracaena draco

Tree Aloe **Dwarf Strawberry Tree** Dragon Tree

LARGE SHRUBS



Protea obtusifolia Limestone Sugarbush Carpenteria californica Anemone Helianthemum nommularium Sunrose Encephalartos altensteinii Prickly Cycad

MEDIUM SHRUBS

Blue Fox Tail Agave Agave a. 'Nova' Ribes viburnifolium** Catalina Currant

SMALL SHRUBS & PERRENIALS

Carex pansa Agave dasylirioides Euphorbia dulcis**

Dudleya brittonii

Sedge Dasylirion Agave NCN Dudleya

GROUNDCOVER RECREATIONAL/ACTIVE



Carex praegracilis* Sedge³ NCN*

GROUNDCOVER SOCIALIPASSIVE



Arctostaphylos 'Emerald Carpet Dudleya hassei Dymondia margaretae Senecio mandraliscae

Emerald Carpet Catalina Island Live-Forever Silver Carpet* NCN

HARDSCAPE



Stepping Stones



Mulch or DG Pea Gravel Sand-set Brick

* Can tolerate light traffic * Can tolerate shade

SUNSET ZONES - 22, 23, 24





NORTH

1" = 10'-0"

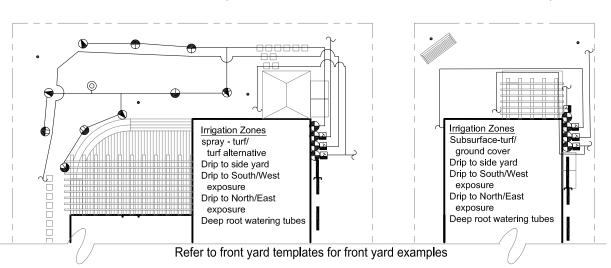
Note: For additional information regarding design and installation, please see back yard template and CUWCC's Water Smart Landscape Checklist at www.cuwcc.org. Funded by the U.S. Bureau of Reclamation, Lower Colorado Region, Southern California Office.

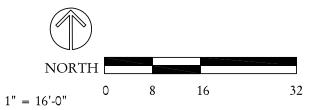
"TYPICAL" SIZED LOT HOUSE

NORTH FACING REAR GARDEN, TYPICAL

ZERO-LOT LINE HOUSE

NORTH FACING REAR GARDEN, TYPICAL







SOUTHERN COASTAL BACK YARD

June 2009

Irrigation Zones Irrigation Zones Drip/Subsurface-Drip/Subsurfaceground cover Drip to side yard Drip to North exposure Drip to South/West Drip to side yard Drip to South/West exposure Drip to North/East exposure exposure Drip to East side yard Deep root watering tubes Deep root watering tube Refer to front yard templates for front yard examples

PRECIP = Precipitation Rate is the application rate of irrigation in inches per hour

Assumed precips: 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 infilitration 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 precips. 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:

RECREATION/ACTIVE

SOCIAL/PASSIVE

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.

	BACK YA	ARD IRRIGATION SYSTEM LEGEND	
	Existing irrigation main stub-out-1" Remote Control Valves Drip control assembly Flush valve/air relief valve 6" Spray heads (12" from fence) 0" Spray heads (12" from fence) Deep root watering tube	-Connect to stubout, station wires and common in valve box -Below grade in valve box with 2 cu feet of gravel below -120 mesh filter and 40 psi regulator where psi is excessive -Manual ball valve and air relief valve as required -Matched precip with check valves-12H,T,Q,ADJ -Matched precip with check valves-10H,T,Q -Matched precip with check valves-8F,H,T,Q -Matched precip with check valves-15SST,EST -Use 1 GPM bubbler as alternate to hand watering	-12' radiu -10' radiu -8' radius -3' X 10'
	Irrigation main-1" Irrigation lateral Electrical conduit-1"	-1120/Schedule 40 PVC pipe -1120/Class 200 PVC pipe -1120/SCHEDULE 40 PVC PIPE	-18" cove -12" cove -24" cove
_	Sleeving-3" To drip irrigation Inline subsurface drip-1/2"	-1120/Schedule 40 PVC pipe -Point source or multi-outlet emitters -LDPE with inline emitters 12" on center	-24" cove - 6" cove - 4" cove

Typical Lot -Recreation	Estimated Water Use- Santa Barbara													
Valves	SQ FT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN GAL
Spray Turf	440	8	217	521	850	1,371	1,398	1,398	1,398	1,234	910	362	101	9,767
Spray Turf alternative	440	5	124	298	486	783	799	799	799	705	520	207	58	5,581
Drip GC	1160	7	190	458	747	1,204	1,229	1,229	1,229	1,084	800	318	89	8,583
TOTAL with Turf	1600	15	407	979	1,597	2,575	2,627	2,627	2,627	2,318	1,710	887	249	18,350
TOTAL with Turf														
alternative	1600	12	314	755	1,232	1,988	2,027	2,027	2,027	1,789	1,320	1,205	338	14,164
	1 turf 18,350 gal/yr; MAWA = 28		, ,											
Estimated water use with	n turf alternative 14,164 gal/yr; M	AWA =	28,329 gal/y	r; projected v	vater use	= 50%	with tu	rf altern	ative					
	Estimated Water Use-										1 /			
Zero Lot - Recreation	Santa Barbara	TANT					TI D.I.	** **						
Valves	SQ FT	JAN	FEB	MAR	APR	MAY	JUN	JUL		SEP	OCT	NOV		ANN GAL
Subsurface Drip Turf	220	3	84	203	330	533	544	544	544	480	354	141	39	3,798
Subsurface Turf	222		40	117	100	205	244	244	244	274	202	00	22	2,170
alternative Drip shrubs	220	2	48	116	189	305	311	311	311	274	202	80	23	+ '
*	500	3	82	197	322	519	530	530	530	467	345	137	38	3,700
TOTAL with Turf TOTAL with Turf	720	6	166	400	652	1,052	1,073	1,073	1,073	947	699	358	100	7,498
altannativo	720	5	120	212	511	024	0.40	0.40		7/11	547	105	120	5.870
alternative Estimated water use with	720 2 turf 7 498 gal/yr: MAWA = 12	5 748 gal/s	130	313	511 9% of M	824 [AW/A v	840	840	840	741	547	495	139	5,870
Estimated water use with	n turf 7,498 gal/yr; MAWA = 12,		yr; projected	water use = 5	9% of M	IAWA v	vith tur			741	547	495	139	5,870
Estimated water use with	n turf 7,498 gal/yr; MAWA = 12, n turf alternative 5,870 gal/yr; MA Estimated Water Use-		yr; projected	water use = 5	9% of M	IAWA v	vith tur			741	547	495	139	5,870
Estimated water use witl Estimated water use witl Typical Lot - Social	n turf 7,498 gal/yr; MAWA = 12, n turf alternative 5,870 gal/yr; MA		yr; projected yr; 12,748 gal/yr	water use = 5	9% of Mater use	IAWA v = 46% w	vith tur		tive					
Estimated water use witl Estimated water use witl	turf 7,498 gal/yr; MAWA = 12, turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT	JAN	yr; projected 12,748 gal/yr FEB	water use = 5 projected water	9% of Mater use	IAWA v = 46% w MAY	vith turf vith turf JUN	alternat	tive AUG	SEP	ОСТ	NOV	DEC	ANN GAL
Estimated water use witl Estimated water use witl Typical Lot - Social Valves	n turf 7,498 gal/yr; MAWA = 12, turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT	AWA =	yr; projected 12,748 gal/yr FEB 131	water use = 5 projected water MAR 316	9% of Mater use APR 515	MAY 831	vith turf vith turf JUN 847	alternat	AUG 847	SEP 748	OCT 552	NOV 219	DEC 61	
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs	n turf 7,498 gal/yr; MAWA = 12, turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800	JAN	yr; projected 12,748 gal/yr FEB	water use = 5 projected water MAR 316 316	9% of Mater use	IAWA v = 46% w MAY	vith turf vith turf JUN	alternat	AUG 847 847	SEP 748 748	ОСТ	NOV 219 219	DEC 61 61	ANN GAL 5,919
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs TOTAL with Turf	n turf 7,498 gal/yr; MAWA = 12, turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800 800 1600	JAN 5 5 10	yr; projected v12,748 gal/yr; FEB 131 131 262	water use = 5 projected water MAR 316 316 631	9% of Mater use APR 515 515 1,030	MAY 831 831	yith turf yith turf JUN 847 847	JUL 847 847	AUG 847 847	SEP 748	OCT 552 552	NOV 219	DEC 61	ANN GAL 5,919 5,919
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs TOTAL with Turf	n turf 7,498 gal/yr; MAWA = 12, turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800	JAN 5 5 10	yr; projected v12,748 gal/yr; FEB 131 131 262	water use = 5 projected water MAR 316 316 631	9% of Mater use APR 515 515 1,030	MAY 831 831	yith turf yith turf JUN 847 847	JUL 847 847	AUG 847 847	SEP 748 748	OCT 552 552	NOV 219 219	DEC 61 61	ANN GAL 5,919 5,919
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs TOTAL with Turf	n turf 7,498 gal/yr; MAWA = 12, turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800 800 1600 39 gal/yr; MAWA = 28,329 gal/yr	JAN 5 5 10	yr; projected v12,748 gal/yr; FEB 131 131 262	water use = 5 projected water MAR 316 316 631	9% of Mater use APR 515 515 1,030	MAY 831 831	yith turf yith turf JUN 847 847	JUL 847 847	AUG 847 847	SEP 748 748	OCT 552 552	NOV 219 219	DEC 61 61	ANN GAL 5,919 5,919
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs TOTAL with Turf Estimated water use 11,8	n turf 7,498 gal/yr; MAWA = 12, n turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800 1600 39 gal/yr; MAWA = 28,329 gal/y Estimated Water Use-	JAN 5 5 10	yr; projected v12,748 gal/yr; FEB 131 131 262	water use = 5 projected water MAR 316 316 631	9% of Mater use APR 515 515 1,030	MAY 831 831	yith turf yith turf JUN 847 847	JUL 847 847	AUG 847 847 1,695	SEP 748 748	OCT 552 552	NOV 219 219 439	DEC 61 61	ANN GAL 5,919 5,919
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs TOTAL with Turf Estimated water use 11,8 Zero Lot - Social	n turf 7,498 gal/yr; MAWA = 12, n turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800 800 1600 39 gal/yr; MAWA = 28,329 gal/y Estimated Water Use- Santa Barbara	JAN 5 5 10 vr; project	rr; projected v 12,748 gal/yr FEB 131 131 262 tted water use	MAR 316 316 631 = 42% of M	APR 515 1,030 AWA	MAY 831 1,661	JUN 847 1,695	JUL 847 847 1,695	AUG 847 847 1,695	SEP 748 748 1,495	OCT 552 552 1,103	NOV 219 219 439	DEC 61 61 123	ANN GAL 5,919 5,919 11,839
Estimated water use with Estimated water use with Typical Lot - Social Valves Drip Ground Cover Drip shrubs TOTAL with Turf Estimated water use 11,8 Zero Lot - Social Valves	n turf 7,498 gal/yr; MAWA = 12, n turf alternative 5,870 gal/yr; MA Estimated Water Use- Santa Barbara SQ FT 800 800 1600 39 gal/yr; MAWA = 28,329 gal/y Estimated Water Use- Santa Barbara SQ FT	JAN 5 5 10 vr; project	FEB 131 131 262 tted water use	MAR 316 631 = 42% of M MAR	9% of Mater use : APR 515 515 1,030 AWA APR	MAY 831 831 1,661 MAY	JUN 847 1,695 JUN	JUL 847 847 1,695	AUG 847 847 1,695	SEP 748 748 1,495	OCT 552 552 1,103 OCT	NOV 219 219 439	DEC 61 61 123 DEC	ANN GAL 5,919 5,919 11,839