Las Virgenes-Triunfo JPA Demonstration Garden Project

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www.urbanwatergroup.com

URBAN WATER GROUP

Drought Resilient Landscapes



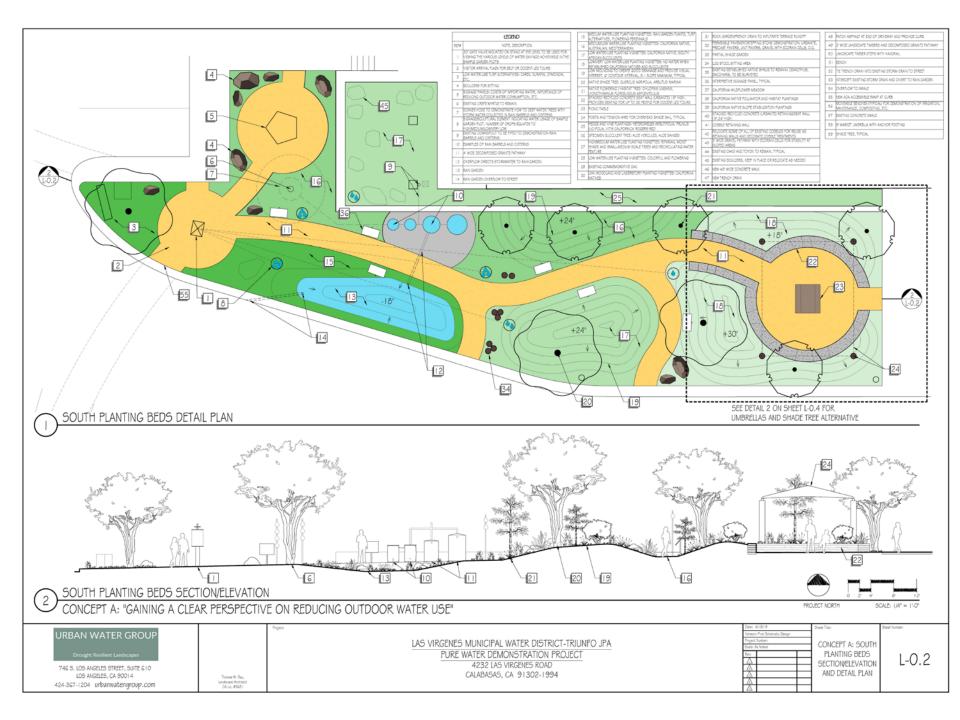
"Gaining a Clear Perspective on Outdoor Water Use"

Provide examples of: Medium, Low and Very Low Water-Use Plantings Storm Water Harvesting Rain Gardens Permeable Pavements Drip Irrigation and Smart Controller

Inspire homeowners to implement these ideas in their own yards to reduce outdoor water use







Lawn Alternatives

 Field Sedge (Carex praegracilis)
 ✓ Uses 50% less water

✓ Mow or not mow

 Kurapia (Phylla nodiflora)

✓ Uses 75% less water



Medium-Low Water Plants Natives and Mediterranean



EUPHORIA MYRSINITES



TEUCRIUM MAJORICUM



ACHILLEA 'MOONSHINE'



ACHILLEA MILLIFOLIUM 'ISLAND PINK'



SALVIA 'MARINE BLUE'



SANTOLINA ROSMARINIFOLIA

Low-Very Low Water Plants Succulents



SENECIO CYLINDRICUS



AGAVE 'JOE HOAK'



AEONIUM 'KIWI'



SENECIO SERPENS





AOENIUM 'JACK CATLIN'

ALOE STRIATA

Low-Very Low Water Plants California Natives



SPHAERALCEA AMBIGUA



ABUTILON PALMERI



EPIPHYLLUM NEVINII 'CANYON SILVER'



ENCELIA CALIFORNICA 'EL DORADO'

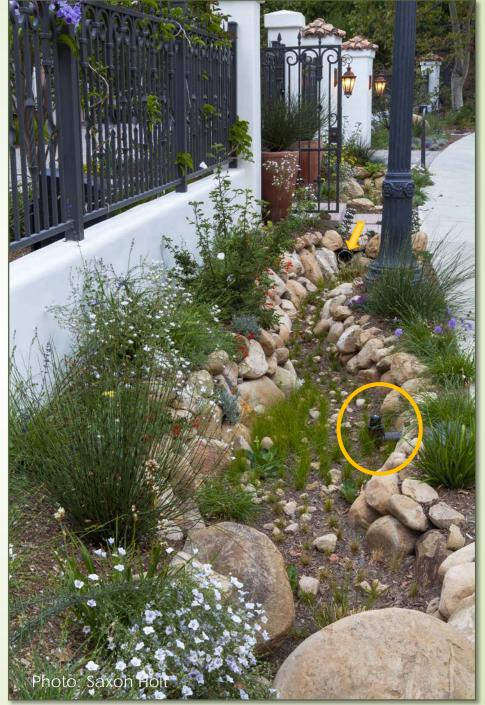




ACHILLEA MILLEFOLIUM 'ISLAND PINK'

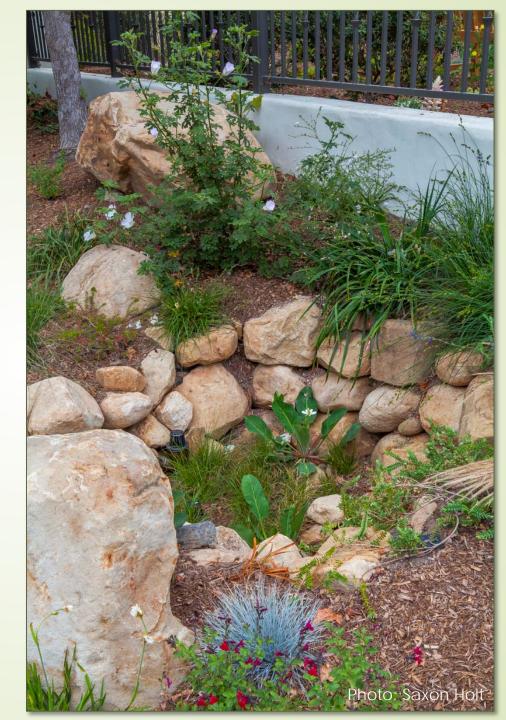
Rain Garden

- ✓ Infiltrates stormwater to reduce irrigation needs
- Filters stormwater overflow before discharging to street



Rain Garden

 Plants adapted to seasonal wet and dry conditions



Rain Tanks

- Capture Roof Water
 ✓ 620 gallons per inch of rain from 1,000 sf roof
 - Use to deep water trees with gravity-fed soaker hose
 - ✓ LID compliance
 - Examples of 55 to 420 gallons





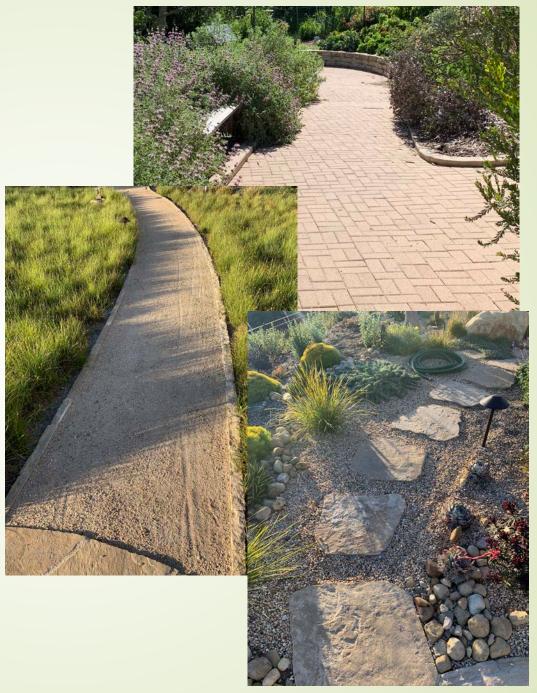
Amphitheater

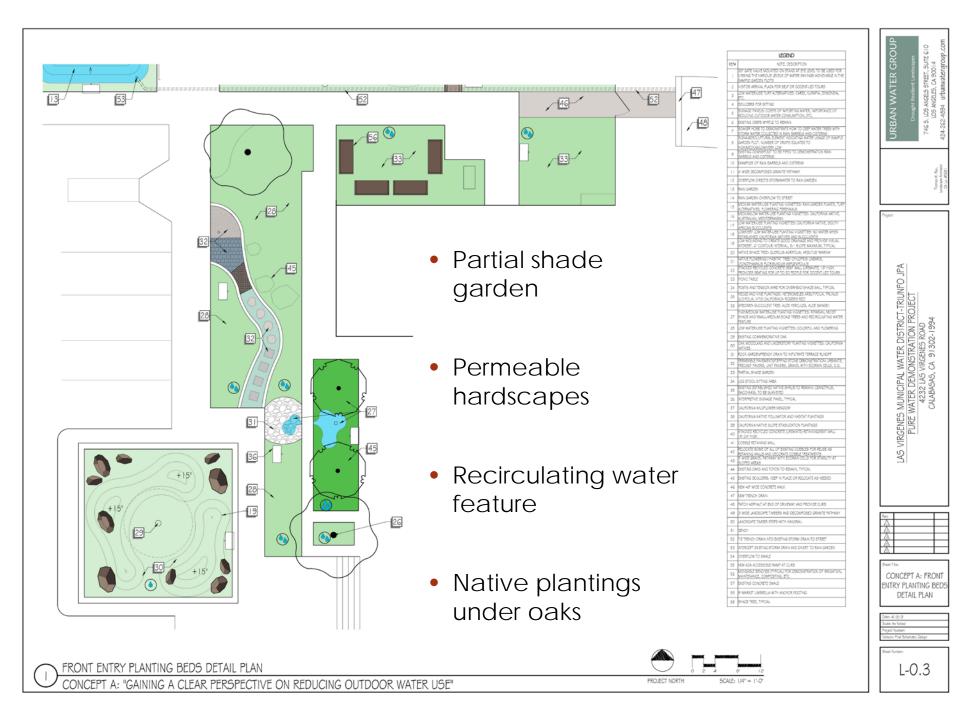
- Teaching and Community Gathering Events
 - ✓ Seating for 30 people



Permeable Pavement

- Infiltrate Runoff
 Reduces irrigation needs
 - Prevent site runoff from polluting waterways



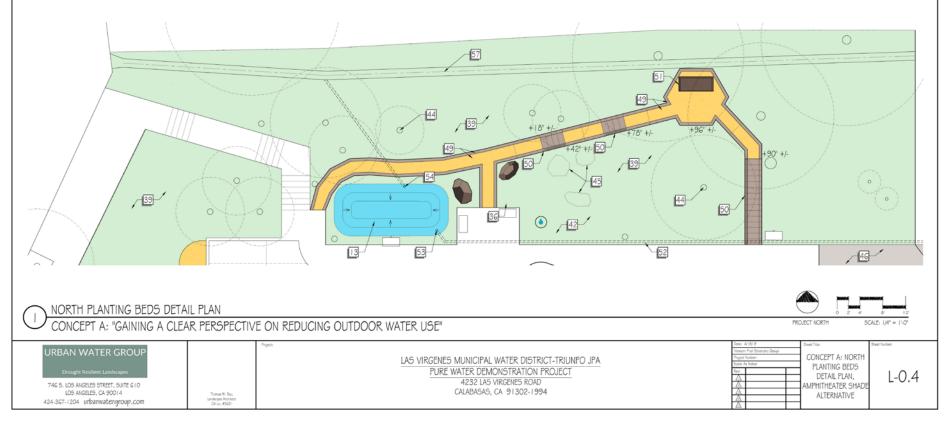


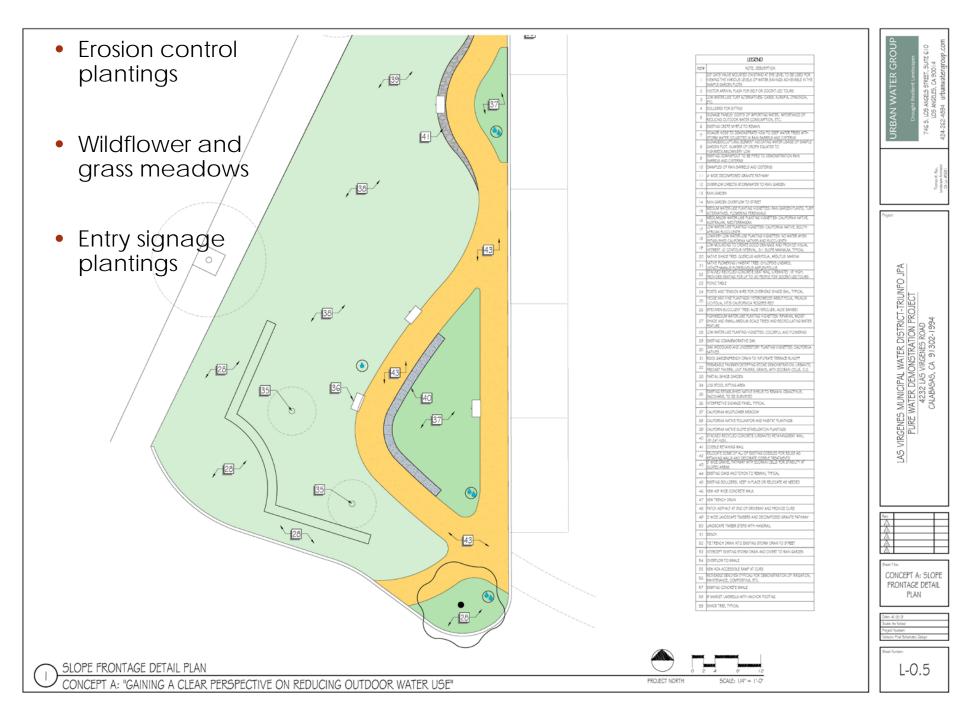
Oak woodland slope plantings

 Drainage improvements

	LIGIND	15	MEDUM WATER-USE PLANTING VIGNETTES: RAIN GARDEN PLANTS, TURP ALTERNATIVES, PLOMENING PERENNALS	31	ROCK GARDEN/RENCH ORAN TO INFUTRATE TERRACE RUNOFF	1 [48	FATCH ABPHALT AT END OF DRIVEWAY AND PROVIDE CURB
127	NOTE, DESCRIPTION	14	CONTRACTOR ANTER THE INTER CONTRACTOR ANTER. A LINCOLD CATER	32	PERMEASLE PAIREMENTISTEPPING STORE DEMONSTRATION: URBANITE, PRECAST PAIRES, UNIT PAIRES, GRAVEL WITH ECORAN CELLS, D.G.	11	40	IT WICE LANDSCAPE TIMEERS AND DECOMPOSED GRANTE PATHWAY
1	30' GATE VALVE MOUNTED ON STAND AT EYE LEVEL TO BE USED FOR VIEWING THE VIRIOUS LEVELS OF WATER SAVINGS ACHEVABLE IN THE	17	DW WATER USE FLANTING VIOLETTES: CALFORNIA NATIVE, SOUTH AMERICAN SUCCUPATS	33	PARTIAL SHADE GARDEN	1[50	LANDSCAPE TIMBER STEPS WITH HANDRAIL
-	SAVPLE GARDEN PLOTS	18	LOWNERY LOW INSTERLISE FLANTING VIGNETTES: NO INATER WHEN	34	LOG STOOL SITTING AREA	1 [51	BENCH .
2	NISTOR ARRIVAL PLAZA FOR SELF OR DOCENT-LED TOURS LOW WATERLISE TURF ALTERNATIVES: CAREX, KURAPIA, DANONDA,		ESTABLISHED CAURONIA NATIVES AND BUCCULENTS LOW NOUNDING TO CREATE GOOD DRAMAGE AND PROVIDE VISUAL	35	EXISTING ESTABLISHED NATIVE SHRUB TO REMAIN: CEANOTHUS, BACCHARIS, TO BE SURVEYED	11	52	TE TRENCH DRAIN INTO EXISTING STORM DRAIN TO STREET
3	etc.	20	NTEREST, & CONTOUR INTERIAL, 3: I SLOPE MAKIMUM, TYTICAL NATIVE SHADE TREE: QUERCUS AGRIPOLA, ARBUTUS WARINA	36	MERRETINE SIGNAGE PANEL, TYPICAL	11	53	INTERCEPT EXISTING STORM DRAIN AND DIVERT TO RAIN GARDEN
4	BOULDERS FOR SITTING SIGNAGE PARELSI COSTS OF INFORTING WATER, INFORTANCE OF	2	NATIVE FLOWERING (HABITAT TRZE: CHILDPSIS UNEARS,	37	CAUPORNA WILDPLOWER MEADOW	11	54	OVERNOW TO SHALE
5	REDUCING OUTDOOR WATER CONSUMPTION, STC.	2	STACKED RECYCLED CONCRETE SEAT WALL (JRBANTE) 1.8" HIGH.	38	CALIFORNIA NATIVE FOLLINATOR AND HABITAT PLANTINGS	11	55	NEW ACA ACCESSIBLE RAMP AT OURD
6	DUSTING CREPE MYRTLE TO REMAIN INCOMPRENDED TO DEMONSTRATE HOW TO DEEP BATER TREES WITH	-	PROVIDES SEATING FOR UP TO 30 PEOPLE FOR DOCENT-LED TOURS PROVIDES AND FOR UP TO 30 PEOPLE FOR DOCENT-LED TOURS	30	CAUFORNA NATIVE SLOPE STABULATION PLANTINGS	11	56	NOVERELE BENCHES ITYFICAL FOR DEMONSTRATION OF IRREGATION, MAINTENANCE, COMPOSTING, ETC.
7	STORM WATER COLLECTION IN FAMILY AND DEEP WATER FREES WITH STORM WATER COLLECTION RANN BARRELS AND COSTERIS BIGMAZESOUTUNAL ELEMENT INDICATING WATER USAGE OF SAMPLE		POSTS AND TENSION WRE FOR OVERHEAD SHADE SAIL, TYTICAL	40	STACKED RECYCLED CONCRETE (JREAWITE) RETAININGSENT WALL 5-24 HIGH.	11	57	EXISTING CONCRETE SWALE
8	GARDEN FLOT, NUMBER OF DROPS EQUATES TO	2	HEDGE AND VINE FURNTINGS: HETEROMELES AROUTIFOUR, FRUNUS	41	COBBLE RETAINING WALL	11	58	8' MARKET UMBRELLA WITH ANCHOR FOOTING
2	HOHMEDUALDWHER LOW DISTING DOWNSPOUT TO BE FIFED TO DEMONSTRATION RAIN BARKELS AND OSTERNS	25	LICIPOLIA, VITIS GALPORNICA ROBERS RED SPECIMEN SUCCULENT TREE: ALDE HERCULES, ALDE BAINSEI	42	RELOCATE SOME OF ALL OF EXISTING COBBLES FOR RELISE AS RETAINING WALLS AND DECORATE COBBLE TREATMENTS	11	59	SHADE TREE, TYPICAL
10	DAMPLE AND CERTIFIES DIAMPLES OF RAIN BARRELS AND CERTIFIES		HIGHMEDUM INATER USE FUNDING VORETTESI REFARIAN, MOIST SHADE AND SMALLANEDUM SCALE TREES AND REDIRCULATING WATER	43	5 WICE GRAVEL FATHWAY WITH ECORAN CELLS FOR STABLEY AT SUDPED AREAS	1		
11	# WIDE DECOMPOSED GRANITE PATHWAY	- 20	PRATE AND SWALL-MEDIUM SCALE TREES AND RECIRCULATING WATER PEATURE	44	EXISTING DAVIS AND TOYON TO REMAIN, TYPICAL	1		
12	OVERFLOW DIRECTS STORMWATER TO RAIN GARDEN	22	LOW WATER-USE FLANTING VIGNETTES: COLORFUL AND FLOMERING	45	EXISTING BOULDERS, KEEP IN PLACE OR RELOCATE AS MEDED	1		
13	RAIN GARDEN	21	NAMES AND ADDRESS OF TAXABLE PARTY OF TAXABLE PARTY.	46	NEW 45' WIDE CONCRETE WALK	1		
14	RAIN GARDEN OVERFLOW TO STREET	33	CAK WOODLAND AND UNDERSTORY PLANTING VIOLETTES: CALIFORNIA NATIVES	47	VEW TRENCH DRAIN	1		

Rain garden

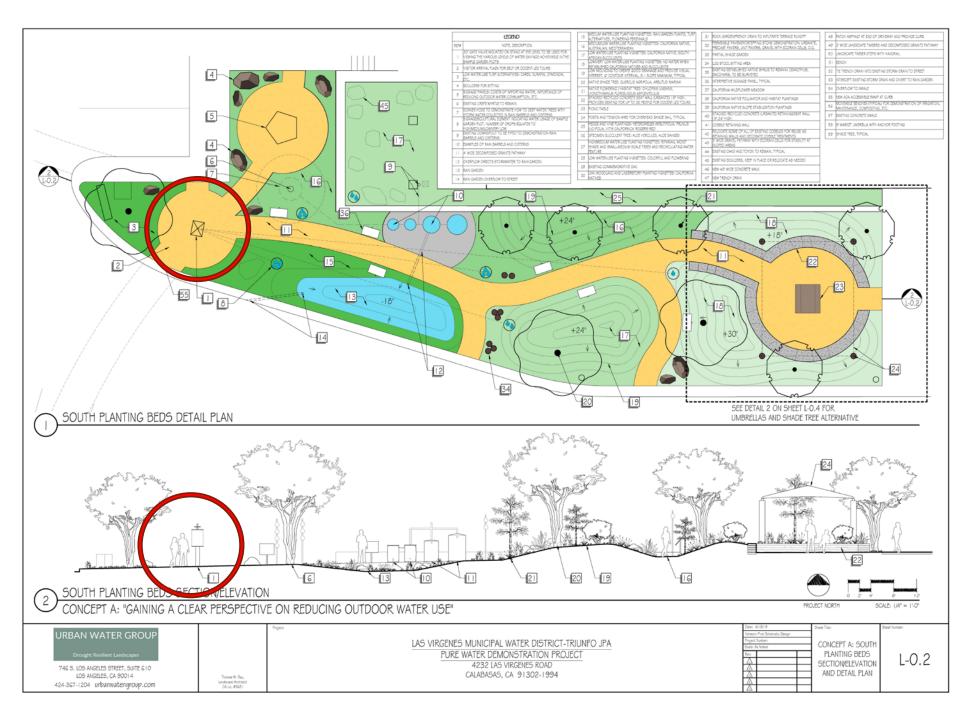




Signage

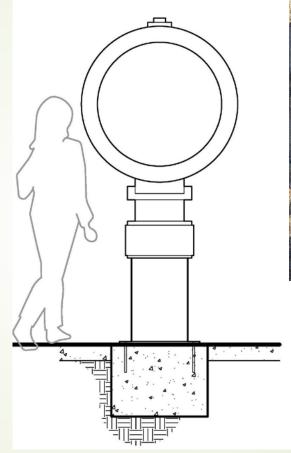
- Interpretive Subjects:
 Plant lists for each garden
 - How to install rain tanks
 - How to install permeable paving
 - The story of imported water
 - Announcements and community events





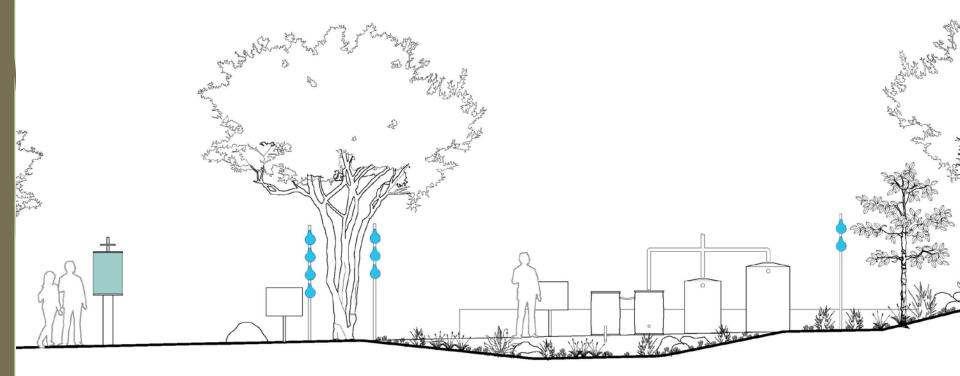
30" Valve Artifact a.k.a. "The Lens"

- Signifies the extent of infrastructure need to import water
 - ✓ Tactile perspective
 - Sight through opening to see examples of medium, low and very gardens indicated by "drop" sign posts





30" Valve Artifact a.k.a. "The Lens"



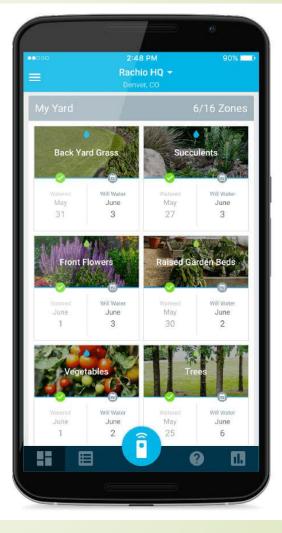
 Sight through opening to see examples of medium, low and very gardens indicated by "drop" sign posts

Water Management

"Smart" Controllers, aka Weather-Based Irrigation Controller (WBIC):

 Automatically adjusts watering schedule to seasonal averages or real-time weather data

 Calculates watering schedules based upon exposure, soil type, plant factor, slope, emitter flow rates, summer water reduction, establishment period etc.



Water Management

Once established:
Vater only every few
weeks

Reduce summer water

Many require no

Photo: Saxon Holt

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Questions?

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