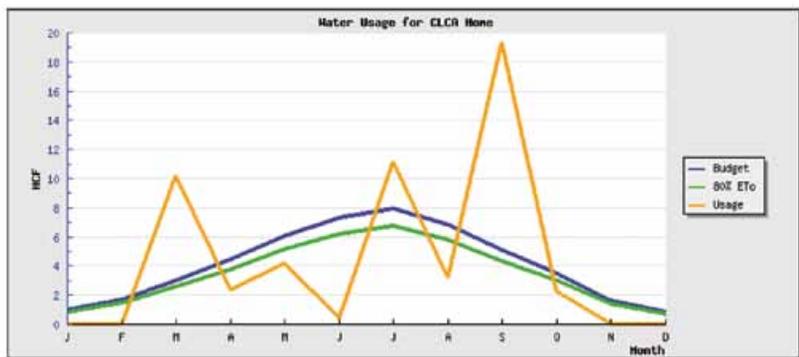


Water Management Tool Creates 'Win-Win' For Landscapers, Clients



Would you like an easy to use graph that demonstrates to your clients and potential clients that you are saving them water and money?

Participants in CLCA's Water Management Certification Program can get a individualized water usage graph for each of their enrolled properties. By documenting water savings for clients, Certified Water Managers demonstrate the "value add" of their services and no longer complete solely on low price.

The end result is a "win-win" situation. Clients save money by using less water, and Certified Water Managers win by providing additional services. And don't forget — saving water promotes sustainability and benefits everyone.

Here's how you can make it happen for you and your company.

CLCA now provides a unique water conservation tool that allows you to quickly develop individualized water budgets that track and predict water usage. This tool is part of the Water Management Certification Program. To register, see www.clca.us/water-pro. Then, log into www.clcaengine.com. In the following pages we'll walk you through how to profit from this website and demonstrate your "value add."

About The Program

CLCA's Water Management Certification Program was started in 2007 and helps reduce landscape water usage by using a water audit, budget and advanced irrigation technology. The program is designed for green industry professionals like landscape contractors, landscape designers, landscape architects, HOA property managers, water agency personnel, city water conservation personnel, students in the landscape industry and anyone from the public concerned about saving landscape water.

CLCA's Water Management Certification program carries the WaterSense Label from the U.S. Environmental Protection Agency and is also approved for continuing education units by PLANET .

WATER MANAGEMENT CERTIFICATION PROGRAM

Founding Partners: **EWING Hunter**, **HORIZON**

Charter Partner: **WaterSense** (U.S. EPA Official)

Mission Statement:

The CLCA Landscape Water Management Performance Certification program is dedicated to the task of managing water continuously to a water budget and to promoting those professionals who can do so.

More information about CLCA's Water Management Program can be found at the [Water Management Certification home page](#). Fees apply to participate in the program.

Need Help Getting Started?
 First time user?
 E-Mail the Program Manager

Registered Users: Enter your username and password below, then click "Login"

Username:
 first last

Password:

Login

Request a password reset

No account? It's easy to create one. See next page.

If you have an account, access your Registered User Home Page the by entering your login name and password. Login names are typically first name.last name or your email address. Passwords are not case-sensitive. If you do not remember your password, click the "Request a password reset" button. For security purposes, an administrator will review your account before issuing a new password. Please allow 24 to 48 hours.

Problems? Get help by clicking the "Send a Message to the Program Manager" button.

Account Creation

To establish your personal account on CLCA's Water Budget/Reporting website, click the "First time users please register here" button on www.clcaengine.com. Then, enter

requested information. If this is the first time someone from your company has used this website, you will also need to enroll your company. To do so, select "Other" from

the company field to enroll a new company, and enter the requested information.

Site Enrollment

Once your company has been enrolled, you will move to the site enrollment page. You will need the following information:

- Site Location
- Site Type: Commercial, residential, etc.
- Method To Develop Irrigation Schedule: Adjusting monthly based on field observation, use of Green Leaf or similar software, etc.
- Age Of Irrigation Or Efficiency Improvement Renovation
- Landscaped Area For Each Crop: For example, 1,000 sq. ft. of Cool Season Turf, 3,000 sq. ft. of trees and ground cover, etc.)
- Irrigation Type Percentage: For example, 100% large rotors, 70% drip irrigation, etc.
- Unit Of Meter Measurement: HCF, gallons, etc.

Landscaped Area:	Crop square footage:	% Spray Heads	% Impact Heads	% Drip Irrigation	% Small Rotors	% Large Rotors	Total
Cool Season Turf	1000					100	100
Warm Season Turf							0
Annual Color							0
Shrubs and Ground Covers	3000			100			100
Shrubs and Trees	500	30		70			100
Drought Resistant and Natives	500	40		60			100
Pool, Pond, Water Feature							0

- Meter Type: Dedicated Meter, Mixed Meter Usage, etc. For "Flow Meter," please contact the program manager at watermanagement@clca.org.
- If mixed usage, number of full-time residents.
- If mixed usage, actual non-irrigation usage (option: Can select average usage of 70 gallons per day)
- Initial Reading

- Initial Reading Month: The month from which you wish to begin tracking usage

Enter the requested information. In the Landscape Info section, the Total column is the percentage of irrigation type, and must equal 100 percent. The Total column will automatically update after you click/tab out of the fields in the irrigation type columns.

Meter Info

In the Meter Info section, the Meter Serial Number is for your records and for verification should you need to present water bills for past performance.

Be sure to select the correct Unit Of Meter Measurement — HCF or Gallons and the correct Meter Type — Dedicated Meter, Mixed Meter Usage, etc. If you select "Flow Meter," please contact the program manager at watermanagement@clca.org.

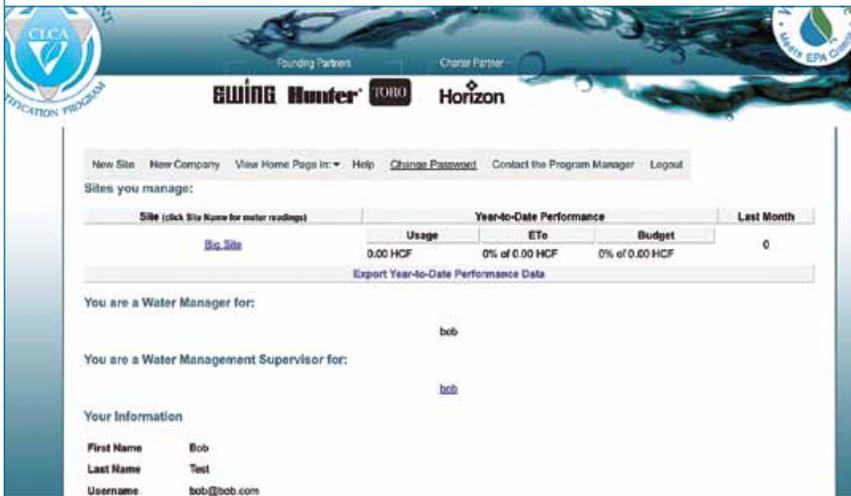
For domestic usage, select either the standard default of 70 gallons/person/day or usage determined by actual test.

You may submit a photo of the meter. Not mandatory, but recommended — can be helpful in the event your usage reading is off. Often times, an inaccurate usage reading is due to an incorrect initial reading or understanding of the meter readout. (Decimal point placement, incorrect unit of measurement, etc.)

Inaccurate meter readings can result in significant heartache. Save yourself time and grief and submit a photo of your initial meter reading.

Finish by clicking the Enroll Site Button. Your landscape budget will be created in 30 seconds, and you can begin entering your monthly meter readings.

Registered User Home Page



After you log into www.clcaengine.com, your home page will have a number of options in the tool bar, including:

- New Site: Register and manage a new site
- New Company: Register yourself as a water manager for a different company
- View Home Page In: View your site data in gallons, HCF (Hundred Cubic Feet) or KGAL (1,000 gallons)
- Help: FAQs, and Glossary
- Change Password
- Contact Program Manager: Send a message to the Program Manager
- Logout

The “Sites You Manage” section lists every site you manage in to the program and its year-to-date performance, including:

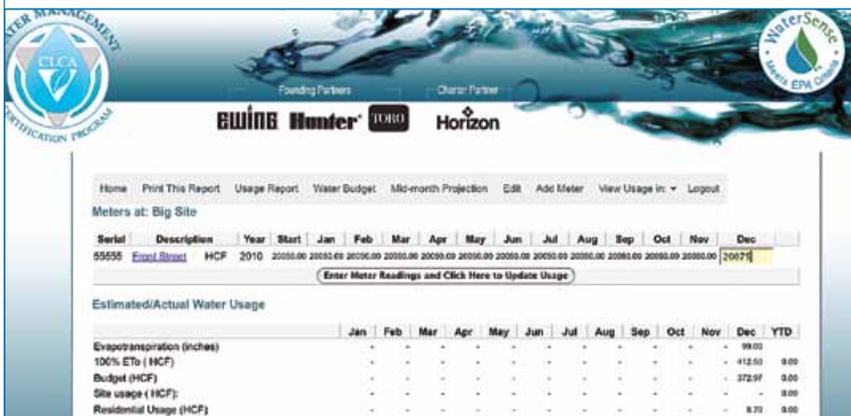
- Usage
- ETo: Evapotranspiration rate of your budget for the year
- Budget: percentage of your budget for the year
- Last month: Amount over/under budget — over listed in red, under in green)

Export

You can export your sites’ year-to-date data into an Excel spreadsheet.

Windows: The default application will automatically open the CSV (MS Excel) spreadsheet.

Macintosh users: After you download the file to your desktop, launch Excel. Select File > Open and select File Type = All Readable Documents.



Enter Meter Readings

From your home page, click on the name of a site. Enter the meter reading in the appropriate month. If you have more than one meter, you can enter readings for each meter and update your budget simultaneously.

After you verify that your meter readings are accurate, click the button Enter Meter Readings And Click Here To Update Usage.

Once entered, meter readings can only be edited by an administrator. The most common error is decimal point placement.

Estimated/Actual Water Usage

Other than meter readings, you will also find detailed information of your site and its water usage. Numbers displayed in red are over budget; under budget numbers display in green.

The accumulated numbers in the far right-hand Year To Date column will update after each meter reading is entered. Pay particular attention to these numbers:

- % of Budget: This site's year-to-date budget percentage rate.
- % of ETo: This sites year-to-date Evapotranspiration percentage rate.

Numbers in green mean you are at or below your budget goals for Basic Certification. Expert certification requires five sites at or below 100% of Budget and 80% of ETo.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Evapotranspiration (inches)	-	-	3.20	4.70	6.40	7.70	8.40	7.20	8.40	3.70	1.70	0.00	0.00
100% ETo (HCF)	-	-	3.20	4.70	6.40	7.70	8.40	7.20	8.40	3.70	1.70	0.00	48.80
Budget (HCF)	-	-	3.02	4.44	6.64	7.27	7.88	6.89	5.10	3.69	1.81	0.00	45.70
Site usage (HCF)	-	-	10.00	8.00	10.00	9.00	17.00	9.00	29.00	9.00	16.00	-	114.00
Residential Usage (HCF)	-	-	5.80	5.81	5.80	5.81	6.80	5.80	5.81	5.80	5.81	5.80	61.44
Irrigation Usage (HCF)	-	-	10.20	2.39	4.20	3.39	11.20	3.20	19.39	2.20	6.39	0	62.56
Amount Over/Under Budget (HCF)	-	-	+7.18	-2.50	-1.84	-0.88	+9.27	-0.60	+14.29	-1.29	+7.78	-	+16.88
% of Budget	-	-	327.76%	18.87%	80.84%	8.58%	141.34%	47.96%	388.20%	62.04%	483.33%	-	138.88%
% ETo	-	-	318.75%	83.65%	82.82%	8.26%	123.33%	84.84%	389.67%	89.45%	483.38%	-	129.28%

Update A Meter

In the toolbar on the top of the sheet, click on Add Meter. Then enter:

- The meter's serial number
- Initial Reading: Meter's first reading of the initial month
- Initial Month: Month of first reading of the new meter
- Description
- Meter UOM: Unit of measurement — HCF, Gallons, etc.
- Meter Type. For mixed-usage meters, domestic usage is typically 70 gallons per person per day.

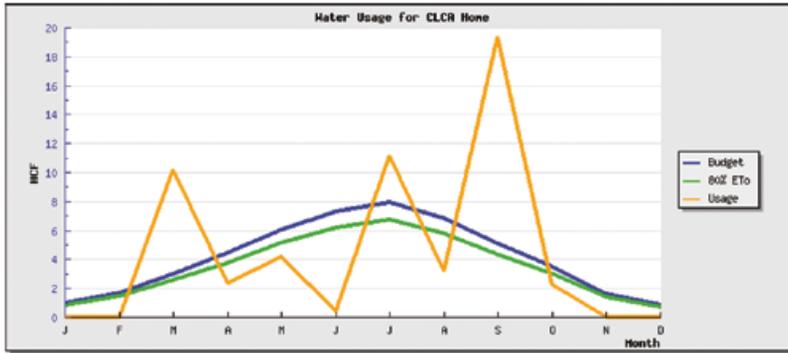
For commercial sites, apartments or condominiums with a mixed usage meter, you will have to determine the non-irrigation usage by actual

test. Refer to the "Mixed Usage Meter" file that can be downloaded from the "Supplemental Files" in the Study Guide for instructions.

Once you have successfully added a new meter, you will return to the Meter Reading page. It will be updated with a blank entry for your new meter in the meter's first month following the meter's initial month.

To protect the program's integrity, only administrators may edit or delete meters. Either click the Contact The Program Manager button in the toolbar on your home page or call program manger David Silva at (916) 830-2780.

Water Usage Report



2010 Water Use History						
Month	ETo (inches)	Water Budget (HCF)	Water Usage (HCF)	Over/Under (HCF)	% Budget	% ETo
jan	3.00	0.94	0	-	-	-
feb	1.80	1.70	0	-	-	-
mar	3.20	3.02	10.20	+7.18	337.75%	318.75%
apr	4.70	4.44	2.39	-2.01	53.83%	50.85%
may	6.40	6.04	4.20	-1.84	69.54%	65.83%
jun	7.70	7.27	0.39	-6.83	5.36%	5.06%
jul	8.40	7.93	11.20	+3.27	141.24%	133.33%
aug	7.20	6.80	3.20	-3.60	47.06%	44.44%
sep	5.60	5.10	19.30	+14.20	380.20%	350.07%
oct	3.70	3.49	2.20	-1.29	63.04%	59.46%
nov	1.70	1.61	0	-1.61	0	0
dec	0.90	0.85	0	-	-	-
total	52.10	49.21	53.17	+3.96	108.13%	103.20%
ytd	48.4	45.70	53.17	+7.47	116.35%	109.86%

Contractor Information		Site Location and Description		Site Notes	
		CLCA Home 1491 River Park Dr Sacramento, Ca 95815		100% ETo = 52.10 HCF ETo used is a copy of draft ordinance 1145-52.10"	
Site Managers		Landscaped Area: 1200 square feet		Crop	
CLCA Test				Square Footage	
				Crop k	
				Effective DU	
				Annual Budgeted Water	
				Shrubs and Ground Covers 500 0.60 0.700 22.33	
				Cool Season Turf 1000 0.80 0.600 23.16	
				Drought Resistant and Natives 200 0.30 0.700 3.72	

Definitions
Budget: The predicted amount of water needed to maintain your site in a healthy and viable condition. It is based upon square footage, type of plant materials, and local climate.
H.C.F.: One hundred cubic feet. The standard measure of water equal to 748 gallons. May also be expressed as C.C.F. or a "Unit" of water.
ETo:

After you manage meter and enter usage, click Usage Report from the top-of-page tool bar to create an easy-to-understand summary. The report lists each month's:

- Target ETo (in inches)
- Target budget (in HCF)
- Actual water usage (by month in HCF)
- Amount over/under target budget (in HCF)
- Percent of target budget
- Percent of target ETo

The graph reports your water usage compared to target usage and the usage requirement of your local water district (which is usually below 80% ETo).

- Blue Line= Your Target Budget
- Green Line= Local Usage Requirement ETo
- Orange Line= Your Actual Year-to-Date Usage

The report also contains a glossary of terms to help your client understand the significance of the information presented.

To create a PDF that can be printed or emailed to a client, click Print This Report in the toolbar in the upper part of the page.

Month	ETo (inches)	Rainfall (inches)	Crop k	Effective DU	Required Water (sq ft)	Area (sq ft)	Water (HCF)
jan	1.80	0.00	0.60	0.70	0.88	600	0.42
feb	1.80	0.00	0.60	0.70	1.54	600	0.77
mar	3.20	0.00	0.60	0.70	2.74	600	1.37
apr	4.70	0.00	0.60	0.70	4.63	600	2.61
may	6.40	0.00	0.60	0.70	5.49	600	2.74
jun	7.70	0.00	0.60	0.70	6.60	600	3.30
jul	8.40	0.00	0.60	0.70	7.20	600	3.68
aug	7.20	0.00	0.60	0.70	6.17	600	3.08
sep	5.60	0.00	0.60	0.70	4.63	600	2.31
oct	3.70	0.00	0.60	0.70	3.17	600	1.58
nov	1.70	0.00	0.60	0.70	1.46	600	0.73
dec	0.90	0.00	0.60	0.70	0.77	600	0.39
total	52.10	0.00	0.60	0.70	45.65	600	23.33

View My Water Budget

To view your site individualized water budget, click on Water Budget in the top-of-page toolbar. Each crop (cool season turf, annuals, natives, etc.) will be itemized:

- ETo (inches): As determined by the closest compatible CIMIS station(s) or a blend of up to three nearby CIMIS stations.
- Rainfall (inches): Effective rainfall is described as 30% of the precipitation in any month having more than one inch of total precipitation. Effective rainfall is capped at 100% of reference evapotranspiration (ETo) for the month.
- Crop K: Crop coefficient or percentage assigned to each crop for effective irrigation
- Effective DU: DU measures how evenly water is applied across a landscape during irrigation.

- Required Water (inches): Required amount of water for each crop, determined by multiplying ETo x Crop K x Effective DU.

- Area (sq ft): Square footage entered for the crop's landscaped area
- Water (HCF): Required water, expressed in hundred cubic feet. ETo x Crop Coefficient / Irrigation System Coefficient

= Required H2O (in inches) - Effective Rainfall = Adjusted H2O.

For more information on the website's landscape water budget development, see www.clca.us/water-pro/water-budgeting.html

Editing Site Information

Users may edit:

Site Address,

Schedule Method,

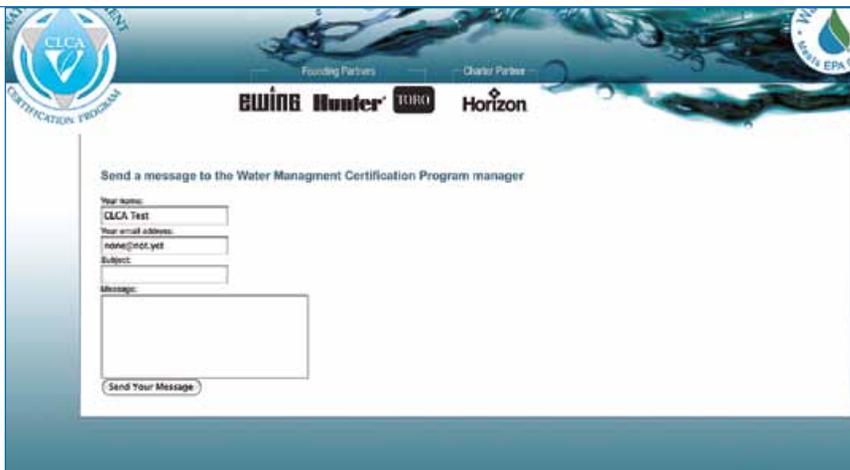
Site Type,

Sprinkler Age,

Site Water District

Effective Rainfall Method

To protect the program's integrity, meters, meter readings, domestic usage allowance and modifications to square footage are only editable by a program administrators. Either click the Contact The Program Manager button in the toolbar on your home page or call program manger David Silva at (916) 830-2780.



Adding A Company Supervisor

When you enroll a company, you will be listed both as a "Water Management Supervisor" for the company and as a "Water Manager" for the company.

Additional registered users can be registered and named as Company Supervisors by contacting the program manager. This allows a company owner, head water conservation employee or employee in charge of entering monthly meter readings to conveniently view all a company's performance properties with one account and using one login.

Site (click Site Name for meter readings)	Year-to-Date Performance			Last Month
	Usage	ETo	Budget	
1390 Brashstone #4200	43.00 HCF	95% of 45.26 HCF	76% of 56.34 HCF	0.00%
Rachel Carmel/000	445.05 HCF	98% of 463.45 HCF	80% of 518.04 HCF	387.36%
CLCA HQ	265.91 HCF	122% of 217.50 HCF	182% of 184.21 HCF	128.04%
Staff Test Site	139.26 HCF	58% of 240.50 HCF	59% of 247.94 HCF	0

Export Year-to-Date Performance Data

Mid-Month Projection Feature

Serial Description	Start	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1111 Meter 1	24312.00	24312.00	24312.00	24312.00	24312.00	24318.00	24325.00	24334.00	24346.00	24351.00	24355.00	24355.00	24356

	Total Usage	Irrigation Usage	Budget	% Budget	% ETo
Month-to-date	1.00	1.00	0.63	150.00 %	198.93 %
projected End-of-Month	1.02	1.02	1.14		

The Mid-Month Projection feature allows you predict your property’s monthly usage any time of the month. This will accurately estimate your month’s end usage using the same irrigation schedule. This prediction tool is a helpful feature for water managers to proactively analyze monthly water usage, while keeping a watchful eye on their budget parameters.

1. Enter the current mid-month meter reading
2. Enter the current day of the month
3. Click the generate mid-month reading button

For example: On the 17th of the month, you can enter your current usage. With this feature, you would learn that at the current pace, you would substantially exceed your water budget. You can then adjust your schedule accordingly to make sure that by month’s end, you will remain within budget.

year	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	total
2010	5.80	5.24	5.80	5.61	5.80	5.61	5.80	5.80	5.61	5.80	5.61	5.80	68.46

Re-Calculate Budget Feature

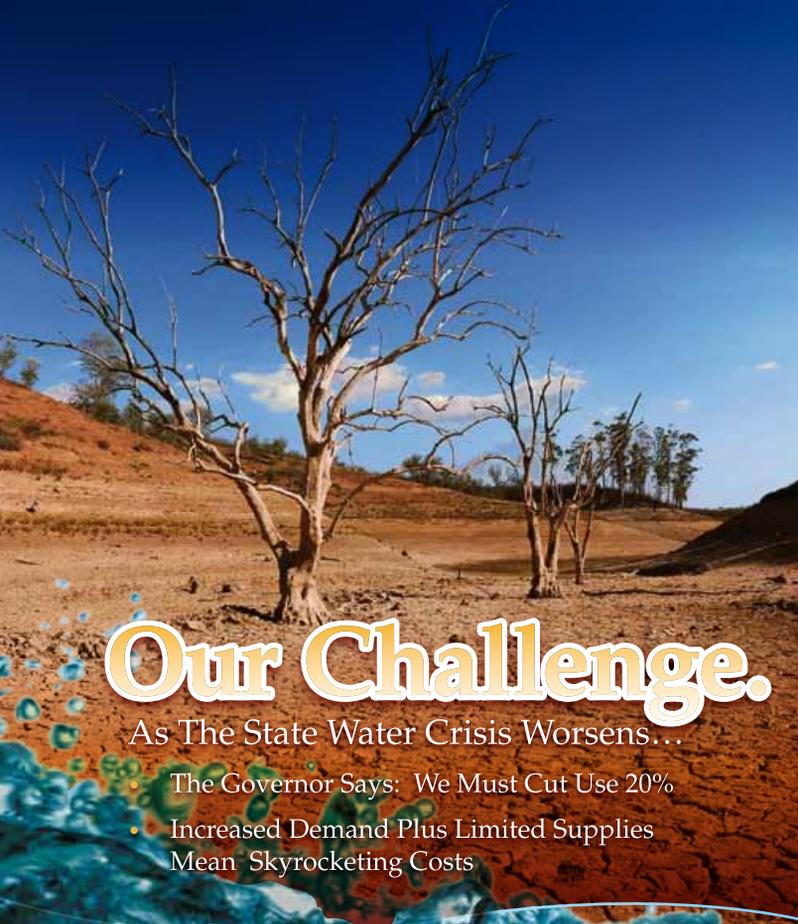
The Re-Calculate Budget feature allows an administrator at any time to make site changes and re-calculate your site’s irrigation budget. When necessary, a program administrator can adjust your water budget.

For example: If your residential site gains inhabitants or becomes unoccupied, your domestic usage must be adjusted accordingly to reflect that change.

Start	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2455.00	2455.00	2455.00	2471.00	2479.00	2489.00	2495.00	2512.00	2522.00	2522.00	2522.00	2522.00	2522.00
2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00	2222.00

View Usage In Feature

The View Usage In feature allows water managers to convert water usage to alternate units of measure. With this feature — located on the toolbar of every page — water managers can convert their readings to gallons, hundred cubic feet and Kgallons. So, even if your local water agency measures water in one unit, you can convert usage in to another unit easier for your clients to understand.



Our Challenge.

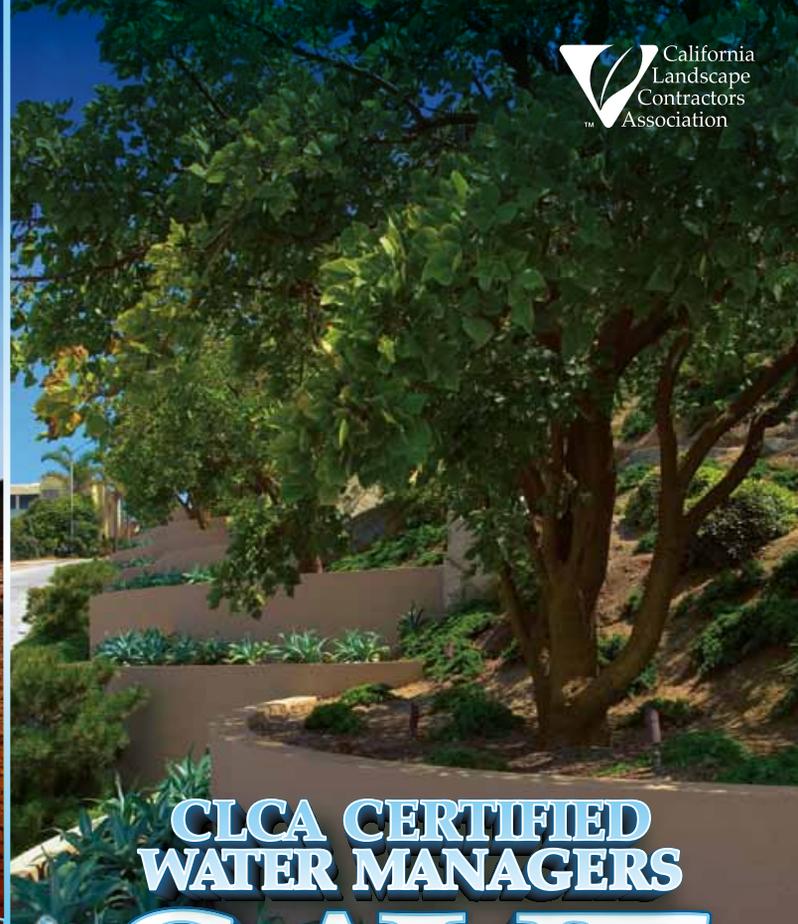
As The State Water Crisis Worsens...

- The Governor Says: We Must Cut Use 20%
- Increased Demand Plus Limited Supplies Mean Skyrocketing Costs

The Solution.

Licensed Members Of The California Landscape Contractors Association Can:

- Audit Your Water Usage To Pinpoint Waste
- Repair Existing Irrigation Systems & Install Low-Water Use Landscapes
- Upgrade To Water-Efficient "Smart Controllers"
- Promote Landscape Health While Reducing Fertilizer And Pesticide Usage
- Enhance Your Property Value
- Maintain Your Green Look & California Lifestyle.



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WATER MANAGERS**

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Save Money • Be Green • Use Water Wisely

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www.clca.org