

# Never Stop Learning: Training Opportunities for Water Efficiency Professionals

*William Granger, City of Sacramento (moderator)*  
*Sue Mosburg, CA-NV AWWA*  
*Mary Ann Dickinson, Alliance for Water Efficiency*  
*Kim O'Cain, O'Cain Consulting*  
*Brenda Scott Cervantes, Lane Community College*

# Today's Panelists:



**Sue Mosburg**  
Executive Director  
CA-NV AWWA

**Mary Ann Dickinson**  
President & CEO  
Alliance for Water  
Efficiency

**Kim O'Cain**  
Founder  
O'Cain Consulting

**Brenda Cervantes**  
Project Specialist  
Lane Community  
College



Moderated by:  
**William Granger**  
City of Sacramento

# REVIEW: Landscaper Certification Trainings – Overview (MyCalWEP)

Training	Organization	Summary	Available Where?	WaterSense Certified?	Length (hrs)	Spanish Option?	Prerequisite?	Certification Requirements
<b>Green Gardeners Training</b>	Regional Community Colleges	Offers a comprehensive overview of current sustainable landscaping techniques focusing on site observation for growing potential, creating and maintaining soil fertility, employing cutting-edge efficient watering strategies, IPM, networking with area experts for technical support and how to sell sustainable landscaping to customers. Target audience includes: gardeners and landscape maintenance contractors.	Santa Barbara County <sup>1</sup>	No	37.5	Yes	No	exam, completion of class
<b>Watershed Wise Landscape Professional</b>	Green Gardens Group	Provides its participants with a deeper understanding of the plant/soil/water relationship, plant water requirements, landscape water budgeting, irrigation management and using rainwater as a resource to reduce landscape water and resource use, regardless of the climate in which the landscape is situated.	National	Yes	16	No	No	exam, irrigation system audit (catch-can), site evaluation: removing turf and building living soil with sheet mulching, and designing a passive rainwater catchment system - rain garden
<b>Qualified Water Efficient Landscaper</b>	Sonoma Marin Saving Water Partnership	Provides landscape professionals with 20 hours of education on local water supply, sustainable landscaping, soils, landscape water budgets, irrigation system components and maintenance, irrigation system audits, and scheduling and controller programming. [Note: Graywater Specialty Cert. also available; Rainwater Harvesting in the works]	National	Yes	20 <sup>2</sup>	Yes	No	exam, irrigation system audit (catch-can)
<b>Water Management Certification Program</b>	CA Landscape Contractor's Association	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.	California	Yes	4	Yes <sup>3</sup>	No	exam, Irrigation audit introduction, 12-month completion of the performance program of at least one landscape site (where water use cannot exceed 80% of the ETo)*Note: "Expert Certification" can be earned from managing 5 sites.



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Leading, educating, and  
serving the drinking water  
community to ensure public  
health and to provide safe and  
sufficient water for all.

CalWEP Plenary  
March 17, 2020

Sue Mosburg – Executive Director  
909-291-2108    [smosburg@ca-nv-awwa.org](mailto:smosburg@ca-nv-awwa.org)

# CA-NV AWWA Offers

## Training Topics

- Water Use Efficiency
- Water Loss Auditing
- WaterLoss Audit Validation (WAV)
- Water Meters 101/ Testing & Calibration
- Water Distribution Systems
- Water Math
- Pressure Management
- Water Rates
- Water Sampling
- Water Quality Analysis/ Regulations
- Emergency Response & Recovery
- Backflow/ Cross Connection Control
- Sourcewater Protection
- Customer Service
- Management Topics

## Professional Certifications

- Water Use Efficiency Practitioner

## Certificates of Completion

- WAV

## Proof of Ongoing Education

- Contact Hours
- Continuing Education Units



CDPH REHS approved accreditation agency  
SWRBC & NDEP approved courses  
Association of Boards of Certification  
Irrigation Association

# Certification & Certificates

Certification	Certificate
Results from an assessment process	Results from an educational process
Typically requires some amount of professional experience	For new comers and experienced professional alike
Awarded by a third-party, standard-setting organization	Awarded by training and educational programs or institutions
Indicates master/competency as measured against a defensible set of standards, usually by application or exam	Indicates completion of a course or series of courses with a specific focus; is different than a degree granting program
Standards set through a defensible, industry-wide process (job analysis/role delineation) that results in an outline of required knowledge and skills	Course content set a variety of ways (faculty committee; dean; instructor; occasionally though defensible analysis of topic care)
Typically results in a designation to use after one's name; may result in a document to hand on the wall or keep in a wallet	Usually listed on a resume detailing education; may result in a document to hand on the wall
Has on-going requirements to maintain; individual must demonstrate knowledge of content; holder must demonstrate he/she continues to meet requirements	Is the end result; individual may or may not demonstrate knowledge of course content at the end of a set period in time

BCSP 2020





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# AWE TRAINING

CalWEP Plenary

March 18, 2020



Alliance  
*for* Water  
Efficiency



# WHAT ARE CURRENT NEEDS FOR WATER EFFICIENCY TRAINING?



- Commercial, Industrial and Institutional Auditors
- Landscape and Irrigation Auditors
- Water Efficient Landscape Designers
- CII Building Managers
- Leak Detection and Repair Operator Training
- Water and Land Use
- Water efficient rates
- Professional Conservation Staff training at the national level

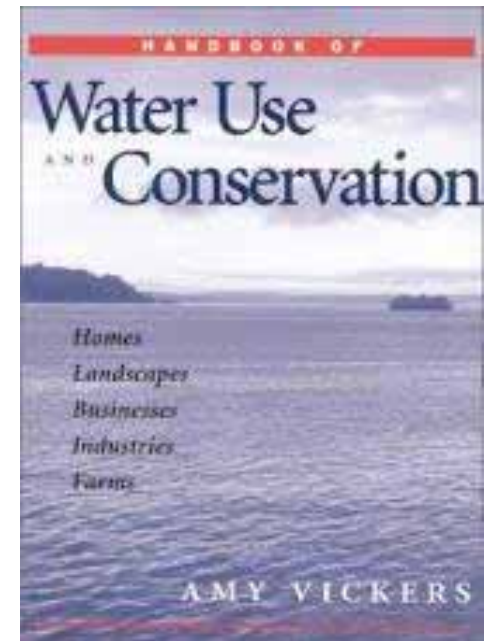


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## PAST TRAINING OF WATER CONSERVATION PROFESSIONALS

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- Training on water conservation has been going on since mid-1980's in various forms
- Mostly done by regional entities like CUWCC, MWD
- CUWCC did "conservation coordinator" training for years
- Amy Vickers published the Handbook of Water Use and Conservation in 2001, fourth printing in 2012
- CA DWR Training workshops with Amy Vickers in 2003
- AWWA Cal-Nevada took up mantle and is the first and only to certify water conservation professionals in the US



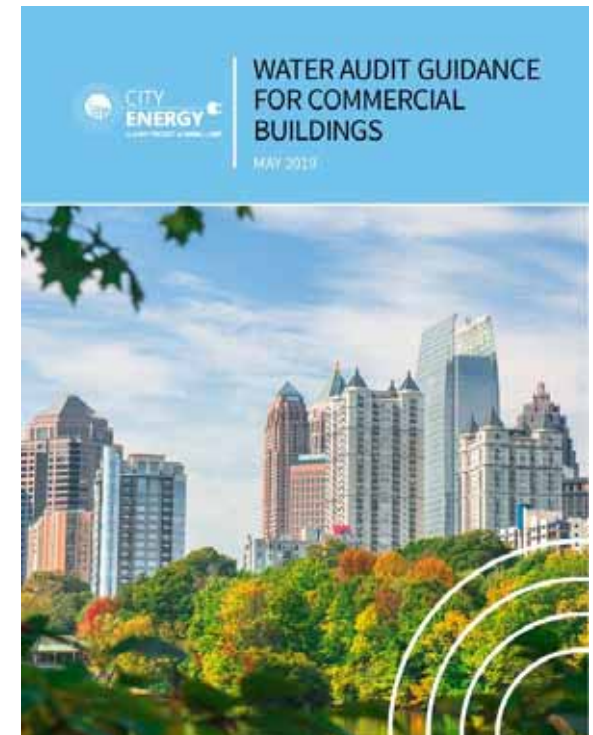


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# NATIONAL WATER EFFICIENCY TRAINING OPTIONS

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- CII Auditor training with Michelle Maddaus & Bill Hoffman
  - City of Atlanta's Water Audit Guidance for Commercial Buildings
  - Course outline developed but needs a pilot
- Restaurant Water Efficiency Auditor Training
  - Santa Fe program: 4 certified auditors and 3 more in process with 42 restaurants audited
  - Willing to export elsewhere
- Updated material from Amy Vickers' book in new conservation professionals course training
  - 10 course modules proposed
  - First module (Water Conservation 101) funded by MWD as pilot





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WATER USE EFFICIENCY AND WATER  
CONSERVATION, BRINGING A CRITICAL  
PERSPECTIVE TO AN INCREASINGLY THIRSTY  
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Alliance  
*for* Water  
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33 N. LaSalle Street, Suite 2275  
Chicago, IL 60602



OFFICE (773) 360-5100  
TOLL-FREE (866) 730-A4WE  
[allianceforwaterefficiency.org](http://allianceforwaterefficiency.org)



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## Sustainability Technician Certification

- FREE
- 8-week course offered winter & summer semesters
- No enrollment at SMC required
- On-site
- Hands-on experiential learning
- Covers organics, energy and water assessments/audits





SANTA  
MONICA  
COLLEGE

## Water Audit Classes

- CII
- Indoor Fixtures
- Landscaping
- Report including ROI
- Results submitted to SMC and retrofits being made



## Future Certifications

Water Efficiency and Water Conservation  
Certifications in development

- FREE
- Online except audits
  - Audits - field trip to local business, college-owned home, campus buildings, landscaping
- Program and policy design and implementation

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Project Funding Provided By:



# Lane Community College Water Conservation Technician Program

Roger Ebbage, PI & Director

Amanda Hatherly, Co-PI

Brenda Cervantes Project Manager

Water Conservation Technician Program  
Fully Online Associate of Applied Science 2-year Degrees

Program Development is funded by a National Science Foundation  
Advanced Technical Education (NSF-ATE) Grant Titled:  
Water Advanced Technological Education Resource for Individuals  
(WATER-I)





Project Funding Provided By:



## Program Overview

### **Two-year Associate of Applied Science (AAS) Career / Technical Degree began in 2006**

#### **Students learn to evaluate:**

- water use patterns;
- develop, implement, market/maintain water conservation programs;
- conduct public outreach;
- recommend water efficiency strategies;
- integrate alternative water sources;
- perform systems analysis to solve over-use issues
- familiarity with codes and policies both local and regional





Project Funding Provided By:



# Fieldwork Mentors

*Better than a thousand days of diligent study is one day with a great mentor.* Japanese Proverb

- Online degrees are fairly commonplace in many sectors of higher education.
- Career-technical education (CTE) lags behind, in large part due to the hands-on fieldwork requirements of CTE type programs.
- **Together**, we can overcome that obstacle by establishing a network of utility fieldwork mentors who can provide essential water-related field experiences.

Roger Ebbage  
541 463 6160  
[ebbager@lanecc.edu](mailto:ebbager@lanecc.edu)

Brenda Cervantes  
541-463-6175  
[cervantesb@lanecc.edu](mailto:cervantesb@lanecc.edu)



MENTOR ASSISTANCE

## Fieldwork Examples

- Perform a water audit on a local residence or commercial site.
- Use and understand tools like EPA Watersense water budget and the WER index.
- Assist in identifying different remedies for stormwater mediation on a commercial/industrial site.

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**CEUs?**