



Qualified Landscape Water Manager

EXHIBIT 2-A

Qualified Landscape Water Manager - Program Introduction

The need to create, maintain and manage water efficient landscapes has never been more critical. With water supplies stretched nearly to the limit throughout our region, conserving water in outdoor landscapes is no longer an option, but rather an essential component of our current and future water conservation strategies.

Although regulatory pressure and rising costs offer some hope to drive changes in outdoor water use practices, ultimately, the landscape professionals that we entrust to manage many of our outdoor landscapes, will play a critical role in reducing outdoor water use.

It has been my experience as a water management consultant that an alarming number of landscape professionals do not have adequate knowledge of how to properly design, install, maintain and manage irrigation systems. The result of which is – inefficient over watered landscapes.

Most often, the irrigation shortcomings experienced by landscape professionals are due to a lack of structured training. For many, opportunities to participate in comprehensive irrigation and water management training have not been readily available outside a college classroom.

Utilizing the personal experiences and the educational materials I have developed as a college instructor, I have put together a series of technical water management workshops, created specifically for the working landscape professional.

The curriculum is designed to provide mid level landscape professionals with comprehensive hands on water management training with the objective of developing the skills necessary to design, maintain and manage water efficient landscapes. Workshop sessions will be presented in both English and Spanish and those students who successfully complete the training and the weekly quizzes, will receive the designation of **Qualified Landscape Water Manager**.



Qualified Landscape Water Manager

Qualified Landscape Water Manager Program - Curriculum Outline

- **Session 1 - Qualified Landscape Water Manager Program Overview**
 - Provide a general overview of landscape water use
 - Discuss regional water challenges, local water restrictions and compliance with local and state regulations (MWELO)
 - Identify QLWM benefits

- **Session 1 – Water Conservation Strategies**
 - Discuss plant material selection
 - Discuss the use of hardscapes
 - Discuss alternative water sources for landscape use
 - Discuss the concept of hydrozoning and spacial arrangement for water use efficiency

- **Session 2 - Principles of Irrigation Design**
 - Discuss design objectives – maximize efficiency and application uniformity
 - Discuss and review the design process – site analysis, design capacity and system hydraulics, emission device selection and layout, valve and pipe sizing, controller selection

- **Session 3 – Water Efficient Products**
 - Discuss and demonstrate the water efficiency application of the following:
 - Pressure regulators
 - Low volume irrigation
 - Weather / soil sensor based controllers
 - Rain shut off devices
 - Rotary nozzles, low flow spray nozzles
 - Review local water agency rebate programs



Qualified Landscape Water Manager

Qualified Landscape Water Manager Program - Curriculum Outline

- **Session 4 - Irrigation System Installation , Maintenance and Water Efficiency Audits**
 - Discuss the proper irrigation system installation procedures
 - Discuss and develop an irrigation system maintenance checklist
 - Discuss and review the process for conducting a landscape water efficiency audits
 - Discuss the components of a water efficiency audit including; an evaluation of cultural practices, system performance and efficiency and system maintenance and management
 - Discuss the procedures for conducting a catch can test
 - Discuss the components of a water efficiency audit report including; a summary of recommendations, an estimate of the return on investment and a site water budget

- **Session 5 - Irrigation System Management**
 - Identify the objectives of irrigation scheduling
 - Discuss soil, water and plant relationships
 - Discuss irrigation scheduling concepts

- **Session 6 - Irrigation System Management**
 - Discuss irrigation scheduling strategies
 - Discuss standard controller programming
 - Develop a weather based irrigation schedule
 - Discuss smart controller programming



Qualified Landscape Water Manager

Qualified Landscape Water Manager - Program Summary

▪ **Class Session Summary**

- Six - 3.5 hour class sessions
- Class hours – (5) evening sessions 5:30 pm – 9:00 pm, (1) Saturday 9:00- 12:30
- A (12) question exam at the conclusion of each session
- A minimum score of 70% is required to pass each exam. A passing grade on all exams is required to achieve the QLWM designation

▪ **Class Materials**

- Power point presentations
- Subject related articles
- Formula/calculation sheets
- Scheduling, site auditing and design templates
- Industry resources/links
- Product literature
- Product samples

▪ **Potential Sponsors / Supporters**

- MPWMD
- California American Water
- Marina Coast Water District
- Water Awareness Committees – Monterey, Santa Cruz
- Monterey Peninsula College
- Hunter Industries
- Rainbird
- The Toro Company
- Ewing irrigation
- CLCA - Central Coast Chapter
- CUWCC
- Green Gardener Program



Qualified Landscape Water Manager

Qualified Landscape Water Manager - Program Summary

▪ **Participant / Supporter Value**

- Landscape professional
 - Improved skill set
 - Website acknowledgement as QLWM
 - Product discounting, product rebates

- Clients
 - Reduce water related expenses
 - Receive selected irrigation products at reduced or no charge if installed by a QLWM

- Manufacturers/Distributors
 - Increase industry awareness and sales of irrigation products
 - Recognition as Industry supporter

- Educational Institutions
 - Support and enhance existing horticulture curriculum

- Water districts/agencies
 - Support water conservation outreach
 - Increase landscape professional's knowledge of local rebate programs, and compliance with local water restrictions and ordinances.

- Professional Associations
 - Support educational curriculum for members
 - Provide technical training for members
 - Provide a source of continuing education for members



Qualified Landscape Water Manager

What makes the QLWM program unique?

- ◆ The curriculum is designed for entry and mid level landscape professional which, compromise the majority of the landscape workforce. They also represent the segment of landscape professionals through which, the greatest water savings can be achieved
- ◆ Its comprehensive water management training augments the certifications programs currently offered by the IA and CLCA
- ◆ The training is made available at a nominal cost
- ◆ The training is bi-lingual

What do QLWM participants receive?

- ◆ 21 hours of CEU's recognized by the IA and PLANET
- ◆ Identification on the Green Gardener website
- ◆ Irrigation product discounts (where applicable)
- ◆ The knowledge and skills necessary to become effective landscape water managers
- ◆ The knowledge and skills necessary to successfully complete more specialized IA and CLCA certification programs
- ◆ Exposure to local and state landscape water ordinances and regulations
- ◆ Exposure to water conservation irrigation technology
- ◆ Information on local rebate programs
- ◆ Sample products and product literature
- ◆ Water management resources including:
 - Regional irrigation watering guides
 - Irrigation scheduling template
 - Zone evaluation worksheet
 - Audit checklist
 - Site evaluation checklist
 - Water budget template

Pacific Water Management

Presents

Certificate of Completion

Issued to

Student Name

For attendance at

**Qualified Landscape Water
Manager**

QLWM
Qualified Landscape Water Manager

Bob Costa, CLIA, CGIA, CLWM

October 17, 2011

