SUSTAINABLE SOLUTIONS – Using Technology to Conserve Water

Today’s Presenters:
1. Lance Sweeney – President of Sweeney & Associates
2. Richard Restuccia – Director, Water Management Solutions, ValleyCrest Companies
3. Kirk Miller – National Corporate Account Manager for Rain Bird Corporation

Learning Objectives
1. Learn different technologies and ideas to design a sustainable site
2. Understand government regulations that are changing irrigation standards and designs.
3. Understand why manufacturers, landscape architects, contractors, and project owners must work together.
4. Discover why maintenance and operations are vital to a sustainable project.

Understanding the history of irrigation:
1. Are we limited with water supplies?

U.S. Drought Monitor
Understanding the history of irrigation:

1. Is water always available?

Chart 1A - The World’s Water

- 5% Domestic & Industrial
- 5% Irrigation
- 5% Forestry
- 95% Surface & Groundwater

Objective #1 – What are the different technologies we can use?
- Smart Controllers & Central Control
- Calculated ET
- Moisture Sensors
- Web Based
- Tablet Accessible

Objective #1 – What are the different technologies we can use?
- Flow Sensors
- Mainline flow sensors
- Master valves in conjunction with flow sensors
Objective #1 – What are the different technologies we can use?
- Pressure Regulation
  - PRS Dials on Valves
  - Brass Pressure Regulating Valves
  - Pressure Regulation in sprays, rotors, filters, etc.

- Overhead Spray
  - High Efficiency Spray Nozzles
  - Multiple Stream Rotors
  - High Efficiency Rotors

- Drip
  - Conventional Drip – point source
  - Drip Tubing (Sub Surface)
  - Drip Mat (Sub Surface)
Objective #1 – What are the different technologies we can use?
- Adapting to New Trends
- HDPE pipe (Leak Proof Systems)
- Excess Flow Valve for Heads
- Using Xerigation (not zerogation) Correctly
- Do Manufacturing Companies Lead or Follow?

Objective #2 – Understanding New & Changing Government Regulations and Standards
- Sustainable Sites
- LEED
- Understanding the Sustainable Sites Initiative
- Resources for Sustainable Sites
  - www.sustainablesites.org
  - www.asla.org

Examples of Regulations
- California AB1881
- Texas TCEO
- Florida Water Agency Update
- Irrigation Association Update
- Codes & Licensing differences by State
- Abu Dhabi Estidama System
Objective #3 – Why does the Manufacturer, Designer, Contractor & Owner need to work together?
- What is the common goal? Water Conservation!
- LA's work affects design criteria
- Water issues create design opportunity
- Ensure involvement with water agency – Rebates…
- Contractors may not understand the designers intent
- Contractors, designers, and manufacturers need to adapt
- Manufacturers need to spend time training
- Training for contractors
- Training for designers

Objective #4 – Why are Operations and Maintenance vital to a successful Sustainable Project?
- Obvious Problems
  - Low bid award to a maintenance contractor
  - Resist the urge to accept low bid
  - Are there maintenance standards prepared before bid
  - Are there maintenance & operations standards prepared by designers
  - Are maintenance standards enforced by the owner
  - Smart Controllers and Central Controls need to be monitored and managed to reduce water use
  - Correct water management takes time, not low bid
  - Ensure penalties when water use goes up

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Learning Objectives

1. Learn different technologies and Ideas to Design a Sustainable site
2. Understand government regulations that are changing irrigation standards and designs.
3. Understand why Manufacturers, Landscape Architects, Contractors and Project Owners must work together.
4. Discover why maintenance and operations are vital to a sustainable project.

Q & A
Kirk Miller - Bio

Kirk Miller is the National Corporate Account Manager for Rain Bird Corporation. He is a Licensed Landscape Architect and serves as the President-Elect for the Utah ASLA Chapter. His education includes a degree in Landscape Architecture as well as an MBA. Kirk has been involved in the Landscape and Irrigation industry for over 20 years. He currently consults and works with large corporations across the United States, Canada, and South America to help them learn how to be sustainable and conserve water. He has spoken on topics that include Green Roofs & Living Walls, Reclaimed Water in the Landscape, The Anatomy of a Water-Efficient System, as well as Irrigation Sustainable Solutions at a variety of different platforms across the country.

Richard Restuccia - Bio

Richard Restuccia is the Director of Water Management Solutions at ValleyCrest Companies, Inc. He has been associated with the Green Industry for over 15 years. He received his M.S. in Agribusiness Management from Arizona State University. He serves on the Irrigation Association’s Board of Directors, Government and Regulatory Affairs Committee, and is Co-chair of the Political Action Committee. He recently presented at the California Green Technology Conference. He has presented at the WaterSmart Innovations Conference in 2009, 2010 and 2012. This spring he presented at the National Facility Management and Technology Conference and the Urban Sustainability Conference.

Lance Sweeney - Bio

Mr. Sweeney, a professional member of the ASIC (American Society of Irrigation Consultants), founded the firm in 1990. His 31 years in the landscape industry has included design, installation and maintenance. Mr. Sweeney, as a strong proponent of water conservation, has been a certified irrigation auditor since 1991. His experience includes the design and coordination of substantial projects throughout the world including the United States, Saudi Arabia, Egypt, the United Arab Emirates, the Caribbean, and China.
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