

# *EFFICIENT LANDSCAPE IRRIGATION*

**IRRIGATION  
*OF NEW***



**ASSOCIATION  
*ENGLAND***

# *BACKGROUND*

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- President, C.Pine Associates, Inc.
- Massachusetts Resident - Bourne MA
- Nationally Certified Landscape Water Manager, Irrigation Designer, Contractor, Auditor and Technician.
- Extensively involved in irrigation industry leadership nationally and locally.
- Recognized nationally as a leading professional industry instructor and trainer.

# OBJECTIVES

- Awareness of how new technologies are providing tools for efficient watering.
- Understanding that technology does nothing without proper programming.
- Regulatory issues to help us better manage water used in the landscape.



# *FRESH WATER STATS*

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- In the United States, agricultural irrigation is by far the largest user of fresh water, using 79.6 % of the total consumed in the country.
- Industry and power generation use another 8.5 %.
- Domestic use - 4.3 %
- Livestock operations 3.2 %
- Landscape irrigation (except golf courses) consumes 2.9 %.
- Golf courses use approximately 1.5 % of the country's freshwater consumption.
- Locally?

# *DO WE NEED TO IRRIGATE THE LANDSCAPE?*





# *BEST MANAGEMENT PRACTICES*

Landscape  
Irrigation  
BMP's



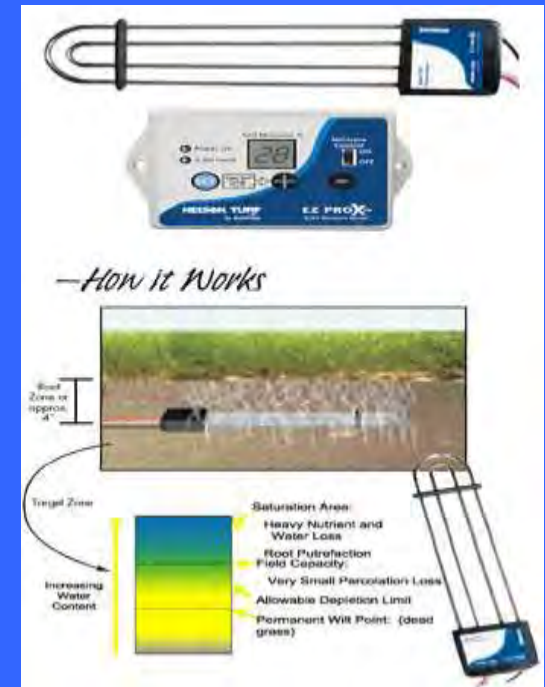
# TECHNOLOGY

- *Gives us the ability to fine tune performance i.e. pressure regulation.*
- *Schedule irrigation based on weather or soil moisture.*
- *Communication and accessibility.*
- *Gives us the ability to monitor and manage remotely.*
- *But, we still need to inspect the systems.*

# TECHNOLOGY

## Smart Controllers

- *Weather based and soil moisture based.*





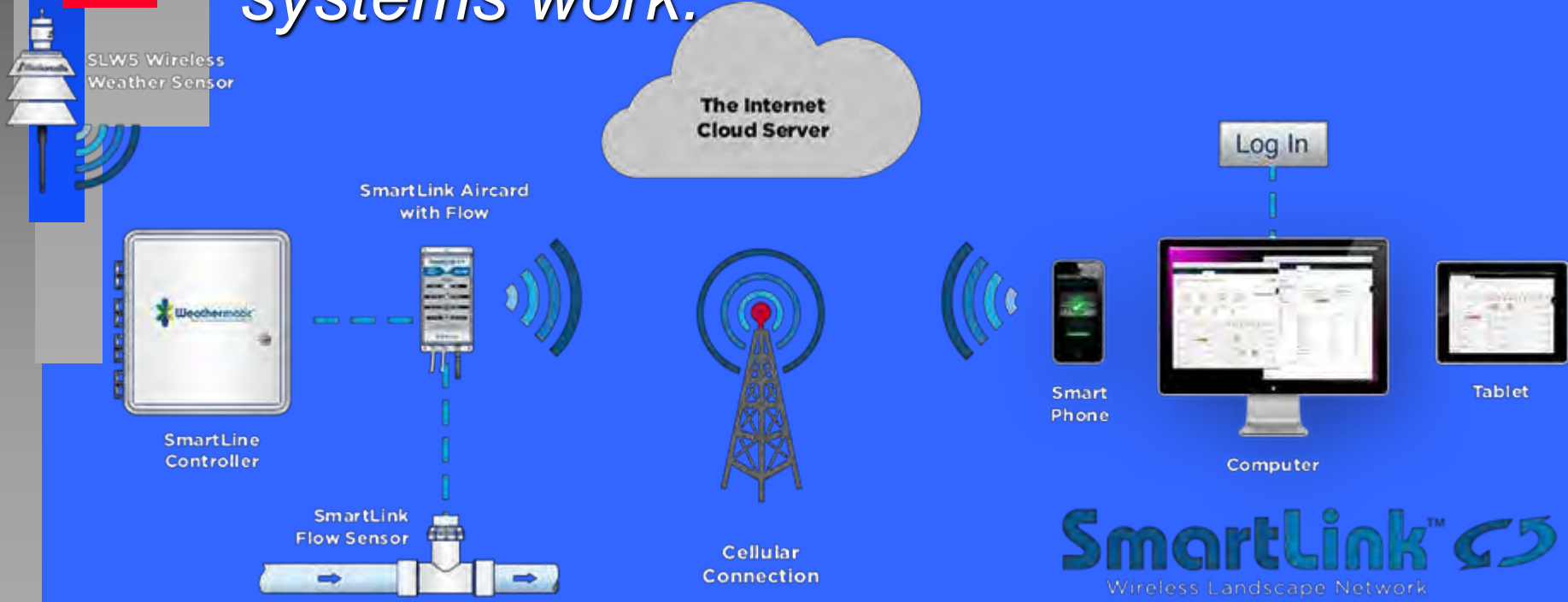
# TECHNOLOGY

- ❑ *What's better – weather or moisture sensing?*
- ❑ *Deficit based programming vs. predictive based programming.*
- ❑ *What about flow sensing?*
  - *Tracks Water Use*
  - *Leak Detection*



# TECHNOLOGY

- *Example of how cloud based control systems work.*



# *SIMPLE TECHNOLOGY*



# *FINAL THOUGHTS*

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- More and more data is becoming available on the effectiveness of different types of watering restrictions.
  - Effective communication is always a key factor.
  - Some restrictions lead to overwatering and waste.
  - Soils and root depths limit the amount of water that can be applied and used by plants.
- The time to create efficient watering habits is when we have the water available.
- Thanks for letting us make this presentation – we are always available to help!

# QUESTIONS

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