# This presentation premiered at WaterSmart Innovations

watersmartinnovations.com

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Every drop counts.
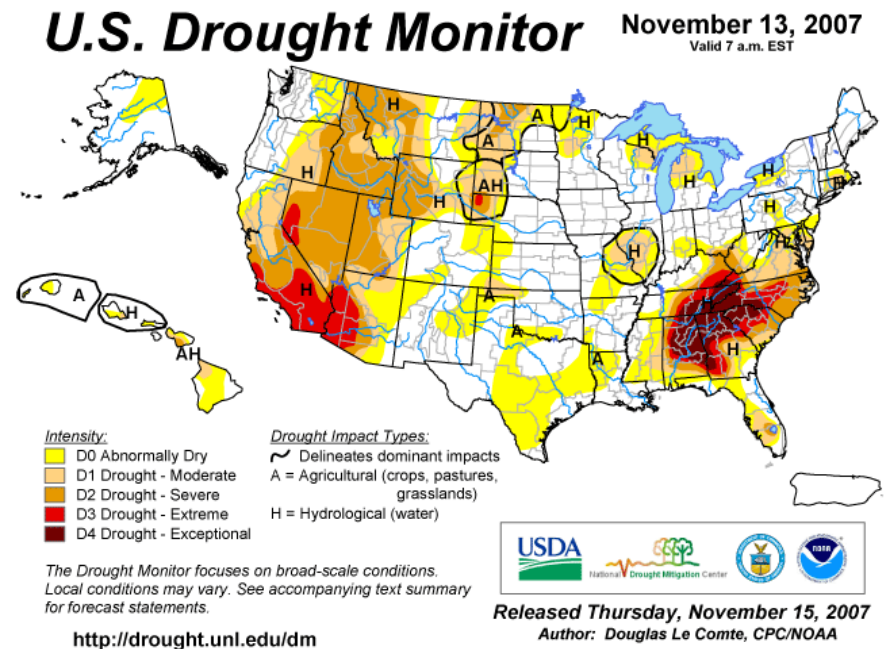
WaterSmart Innovations 2010
Stephanie Tanner, EPA

# Outline

- The Need for Water Efficiency

- Introduction to WaterSense

- Weather-base Irrigation Controller Update

- Packaging and Marketing Research

- Discussion

# Need for Water Efficiency

- Our national thirst for water is increasing
  - Between 1950 and 2000, U.S. population doubled while the demand on public supply systems more than tripled

- Demand coupled with climate change will increase stresses on water supplies
  - At least 36 states are predicting water shortages by 2013, even under non-drought conditions (GAO, 2003)

- Water utilities may need to invest more than $500 billion to update aging infrastructure in the next 20 years
  - More than $335 billion for drinking water
  - More than $200 billion for wastewater



**U.S. Drought Monitor** — November 13, 2007, Valid 7 a.m. EST

Intensity:
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:
- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Released Thursday, November 15, 2007
Author: Douglas Le Comte, CPC/NOAA

http://drought.unl.edu/dm

# What Is WaterSense?

- Voluntary partnership and labeling program launched by EPA in 2006 designed to reduce municipal water use across the country

- Simple way for consumers to identify products that use 20% less water <u>and</u> perform well

- WaterSense aims to increase the adoption of water-efficient products and services by consumers and organizations

- A label with integrity - Third-party certified, not only for efficiency, but for performance too

# Outdoor Water Use

- Outdoor use is about 30 percent of residential use, or approximately 7.8 billion gallons per day
  - Largest outdoor water use component is irrigation

- Outdoor water use can be as high as 70 percent in the drier regions of the West and Southwest

- As much as half of that is lost or wasted due to evaporation, wind, or improper irrigation design, installation, maintenance, and scheduling



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# Outdoor Water Efficiency

- Efficient irrigation requires a systems approach including:
  - Advanced technologies
  - Sound designs
  - Proper installation
  - Good operation and maintenance, including proper scheduling

- WaterSense is addressing outdoor water efficiency by:
  - Labeling certification programs for irrigation professionals that have a water efficiency component
  - Partnering with irrigation professionals that have labeled certifications to promote water efficient practices
  - Labeling water-efficient irrigation products
  - Promoting outdoor water efficiency through the WaterSense labeled new homes

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# Weather-Based Irrigation Controllers

- These products establish an irrigation schedule, or modify a predetermined irrigation schedule, based on landscape conditions and input from offsite weather stations or onsite weather stations or sensors.

- These products have the potential for ~20% water savings compared to conventional clock-driven irrigation controllers.

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Five year historic ET curve for Fresno, CA

Many homeowners irrigate at this level

Potential Water Savings
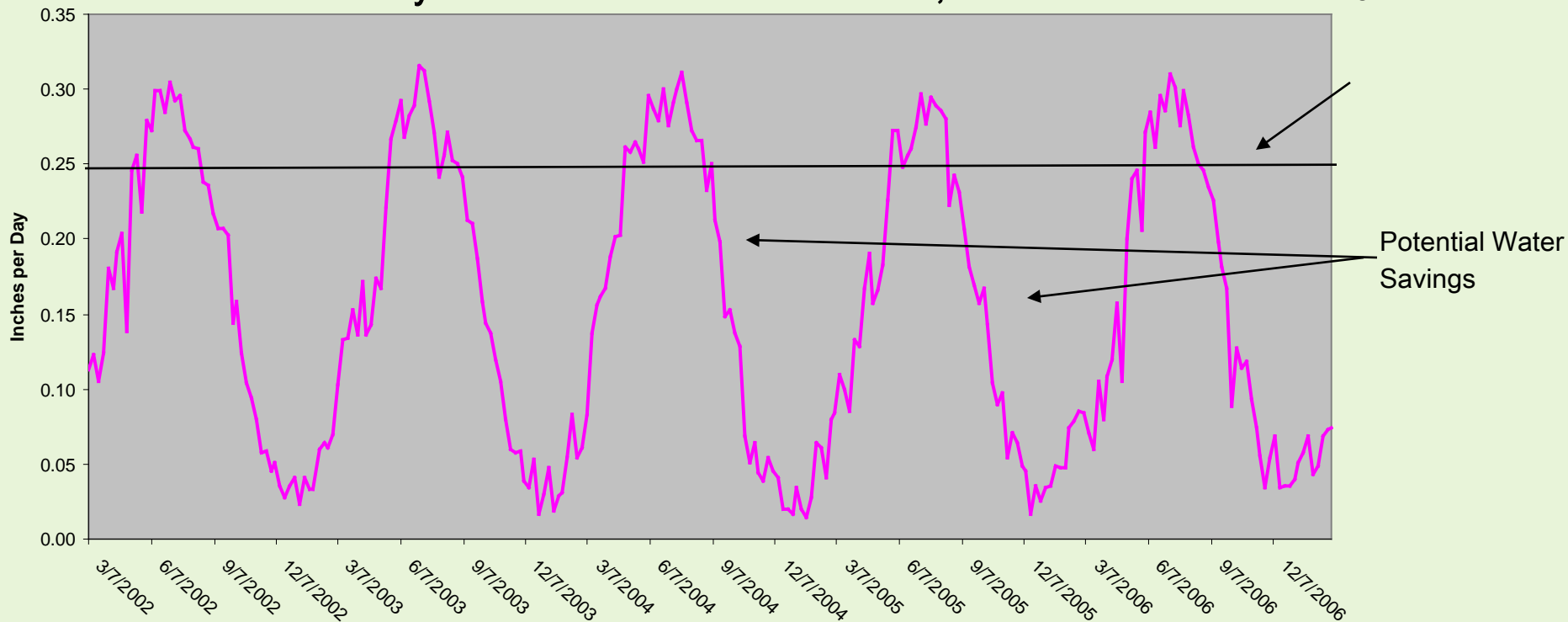
# Weather-Based Irrigation Controller History and Update

- Issued a Notification of Intent to develop a specification in April 2007 (accompanied by a public meeting)

- Formed working groups and conducted research at the University of Florida, 2007-2009

- Published a draft specification in November of 2009 and held three public meetings in December or 2009

- Processed comments and conducted additional research in 2010

- Anticipate the release of a second draft specification in late 2010

- Aiming for a final specification in mid 2011

# Packaging and Marketing Research

- In addition to the technical aspects of the specification, it is equally important to gather information on product packaging, and product marketing and outreach.

- WaterSense is interested in learning about:
  - How products are currently packaged
  - The product supply chain
  - Product perceptions
  - Barriers to purchasing, specifying, recommending, installing

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# Product Packaging

- **Sensor-based controllers may require a variety of sensors or weather stations to function properly.**
  - Some sensors or weather stations are not produced by the controller manufacturer, but by another manufacturer.
  - These sensors or stations may not be packaged with the controller.
  - Product documentation indicates which sensors or stations are compatible.

- **Manufacturers may prefer to test their products with a rain sensor.**
  - Some manufacturers use other brands of rain sensors if their company doesn't produce them.
  - Many times, the rain sensor is not sold with the controller.

- **Stakeholders have emphasized the importance of making the purchasing of these products easy for contractors and consumers.**
  - Multiple parts sold separately can be confusing and, many times, are not purchased or attached to the controller to make it smart, or function as tested.

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# Product Supply Chain

- Currently, the majority of weather-based controllers are sold through distributors.

- In general, contractors make the purchasing decisions, although consumers are demanding more of these products as they become informed of potential savings and convenience.

- Manufacturers are starting to explore selling products through big retail box stores and marketing directly to consumers.
  - Therefore, messaging may need to be targeted to both consumers and contractors.

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# Product Perceptions and Barriers to Market Penetration

- ## Contractors
  - Perceived or real complexity
    - Takes time to learn new technology
    - May be more difficult to program
  - Call backs can be common and contractors want to avoid them
    - Additional visits after installation are required for initial adjustment. This costs contractors time.
    - Call backs may occur due to poor initial installation/setup or distrust by the homeowner that the product is adequately watering.
  - Many weather-based products are more expensive than traditional clock timers.
    - Most incentives are consumer based, not contractor based.
  - Many contractors are not salesman and could use training how to sell these products, including return on investment calculations.
  - Some contractors aren't concerned with saving water. They are concerned with keeping the landscape looking nice.

- # Consumers
  - Perceived or real complexity
    - Consumers who are technophobes may not want these products installed.
  - Those consumers that previously used a clock timer with a set schedule may not like not knowing when irrigation will occur or think the controller is not watering enough and call back the contractor.
  - A higher price premium also impacts adoption by consumers.
  - Consumers are not aware of their water costs or how much water they use per month.
    - Water savings may not produce the dollar signs they want to see due to the price of water.

- **Packaging**
  - How can WaterSense structure packaging requirements to meet the needs of utilities and consumers while balancing the complexity for manufacturers?

- **Messaging**
  - What messaging could be effective in overcoming perceptions and barriers for contractors and/or consumers?

- **Additional Measures**
  - What other measures (e.g., incentives, training programs, etc.) may help overcome barriers for contractors and/or consumers?

# More Information

- **WaterSense Information**
  - Web site: www.epa.gov/watersense
    - List of products
    - Partnership information
    - Educational fact sheets and resources
  - E-mail: watersense@epa.gov
  - **Toll-free Helpline:**
  **(866) WTR-SENS (987-7367)**

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