

This presentation premiered at WaterSmart Innovations

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WBICs: New Long-Term Water Savings Analysis



Metropolitan Water District of Southern California



- Regional water wholesaler to 6 counties
 - 5,200 square mile service area
- 26 member agencies
- 37 member board
- 19 million residents
- Regional economy: \$1 trillion
- Provides about ½ of retail demand

Weather Based Irrigation Controllers (WBICs)

- Automatic sprinkler controller
- Adapts schedule to weather
- Should require minimal human intervention
- May use historical or real-time information
- Also called a “smart” controller

WBICs - State Grant Project

- \$1.8 million grant
- \$1 million cost-share
- Included State-wide study

	Number of Controllers
Residential	3,575
Commercial	1,054
Totals	4,629



Why Another Study?

- Grant required follow-up on water savings
- Some concerns about original results
 - Landscape area
 - Meter read dates
 - No control group
- Verify existence of long-term water savings



Water Savings Analysis Approach

- Three years of pre-installation water use
- Three – five years of post-installation water use
- Three water agencies included
- Collected meter read dates
- Matched weather data to meter read dates
- Established control group

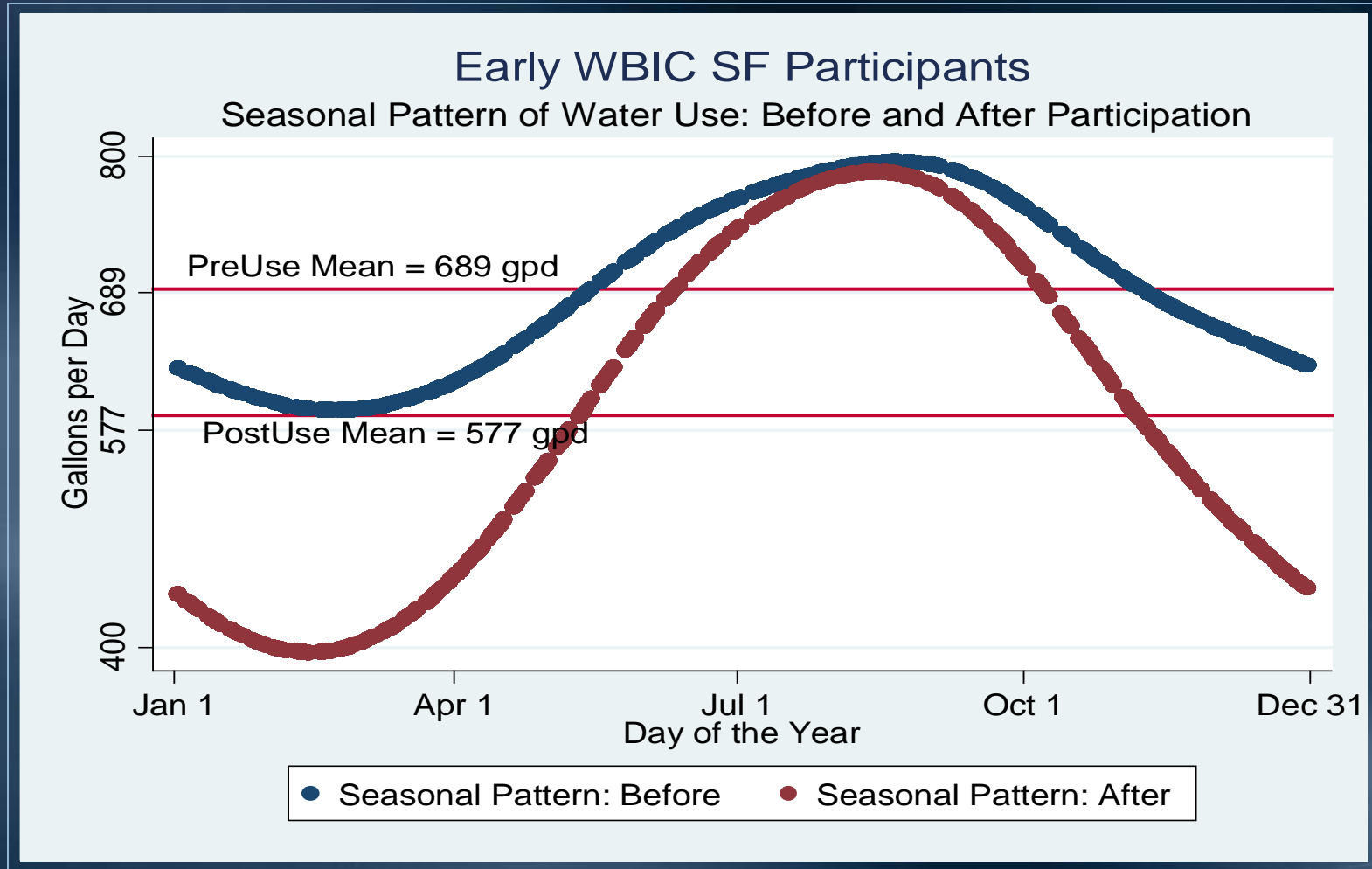
Water Savings Analysis Data

- Residential
 - 917 program participants
 - 3,100 control customers
- Commercial
 - 205 program participants
 - Too much variability in site type for matching a control group

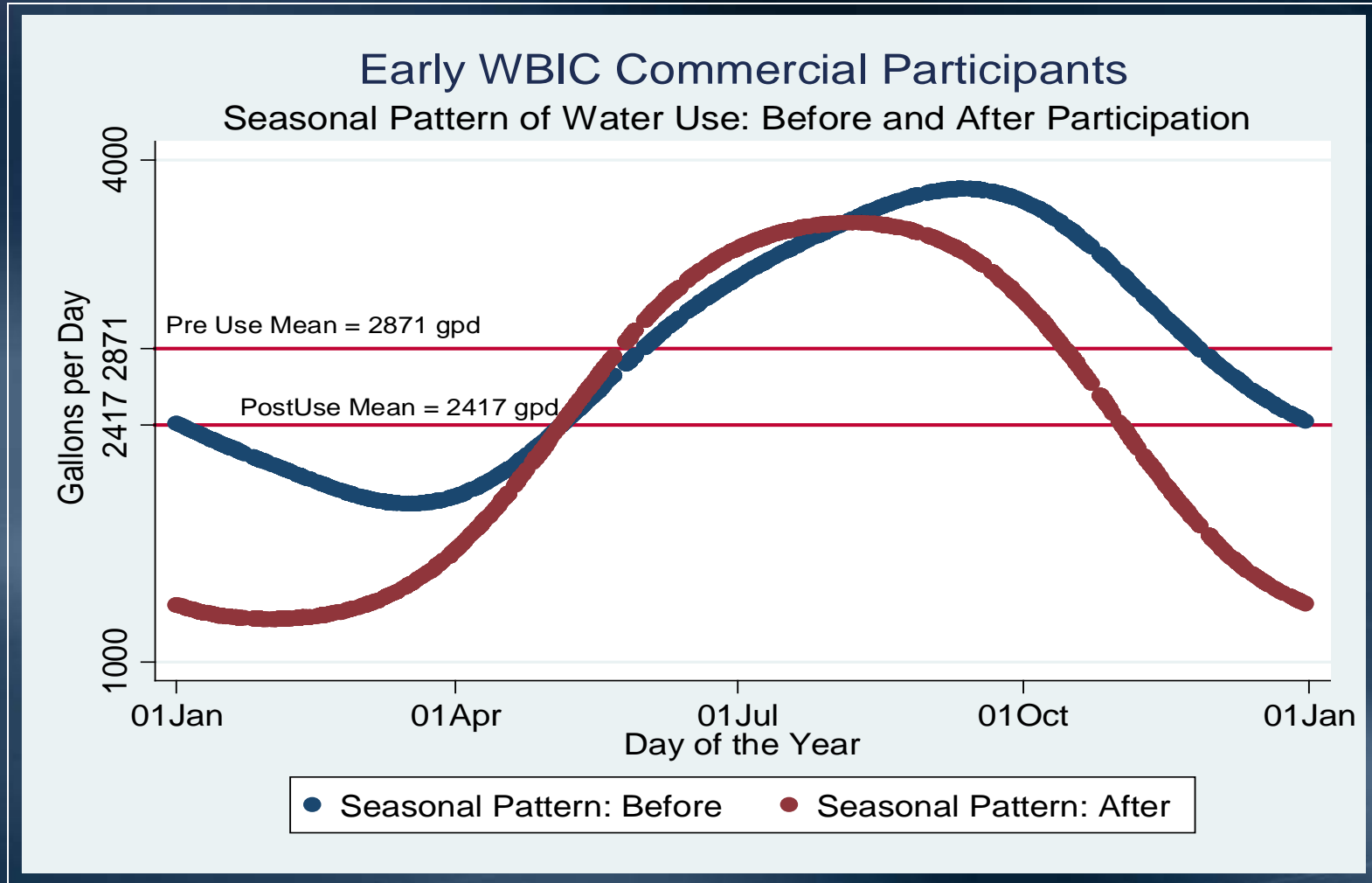
Water Savings Results

- Residential
 - 103 gpd or 14.9 percent reduction
- Commercial
 - 455 gpd or 16 percent reduction
- Seasonal pattern
 - Water use reduced sooner in fall
 - Water savings in fall/winter months

Water Savings Results



Water Savings Results



How Typical are the Results?

- Early adopters may be different than normal participants
- Uncertain about landscape area measurements
- Larger than normal residential landscape areas reported
- Participants were higher water users than the control group before participating
- Most were direct-install programs

Information Learned

- Confirmed most findings from original study
- Smart controllers are saving water
- Water savings are sustained in the long-term
- Targeting high water users increases water savings potential
- Targeting larger landscape areas increases water savings potential
- Smart controller programs are a good investment



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