

# Can Landscape Changes Affect Water Use

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# Agenda

- Background
- Landscape Code Changes
- Study
  - Parameters
  - Results
- Changing Landscapes Through Rebates
  - Results



# CO Water & Growth Dialogue

1. Smaller lot sizes (more homes per acre)
2. Single family to multi-family
3. Denser multi-family
4. **Change in irrigable area type (turf limits)**



# Landscape Code Changes

- Turf limitations – 2003
  - 40% - 50% high water-use turf in front yards
  - 45% high water-use turf in back yards
- Xeriscape option for front yards
  - 100% low water-use landscape
- Irrigation requirements – pre-2000?
- Chapter 146, Article 14



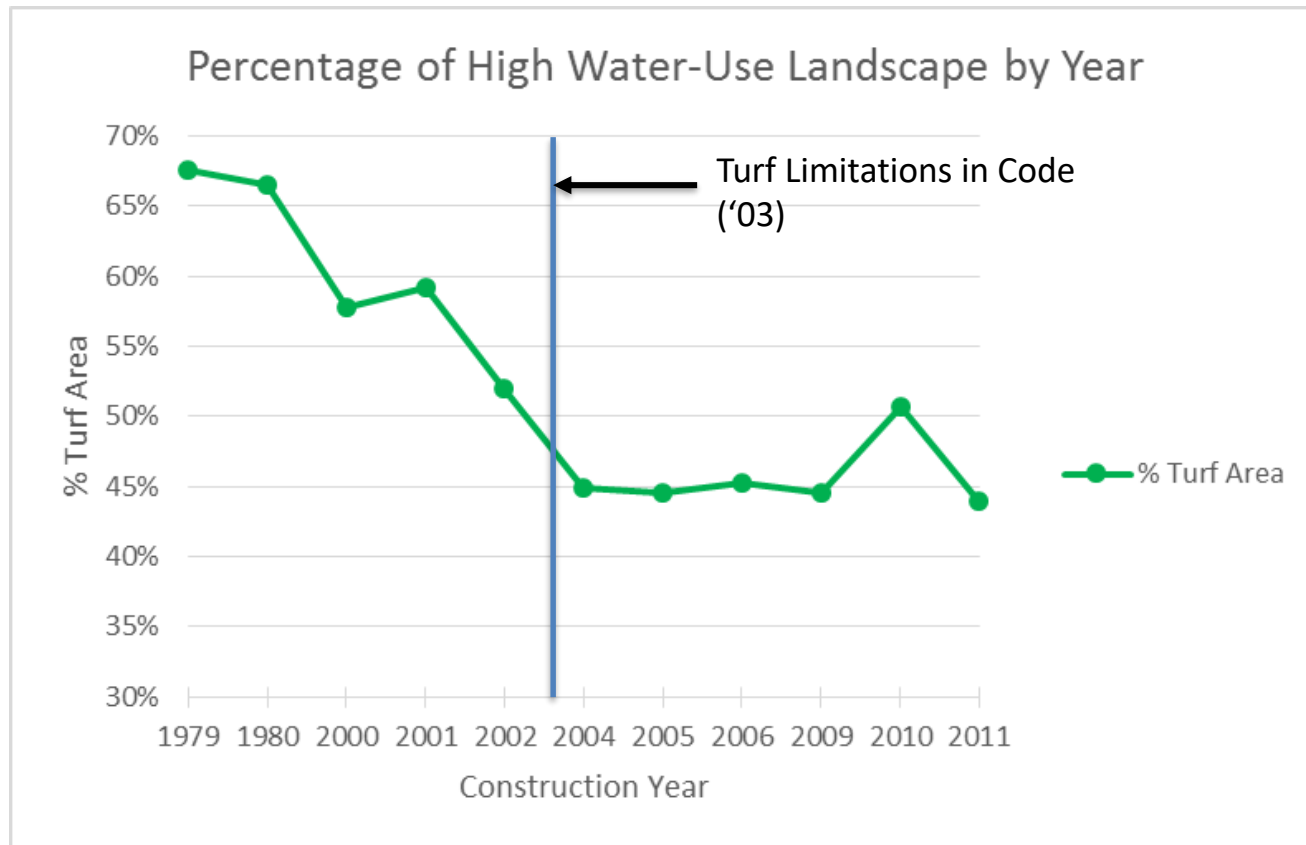
# Study

- Mapped cohorts
  - 1979-80, 2001-02, 2004-06, 2009-11
- Statistically significant samples: 150-175/year
- Square footage of irrigable area
  - Cool season turf (high water-use)
  - Remainder classified as low water-use
- Water consumption from 2013 - 2016



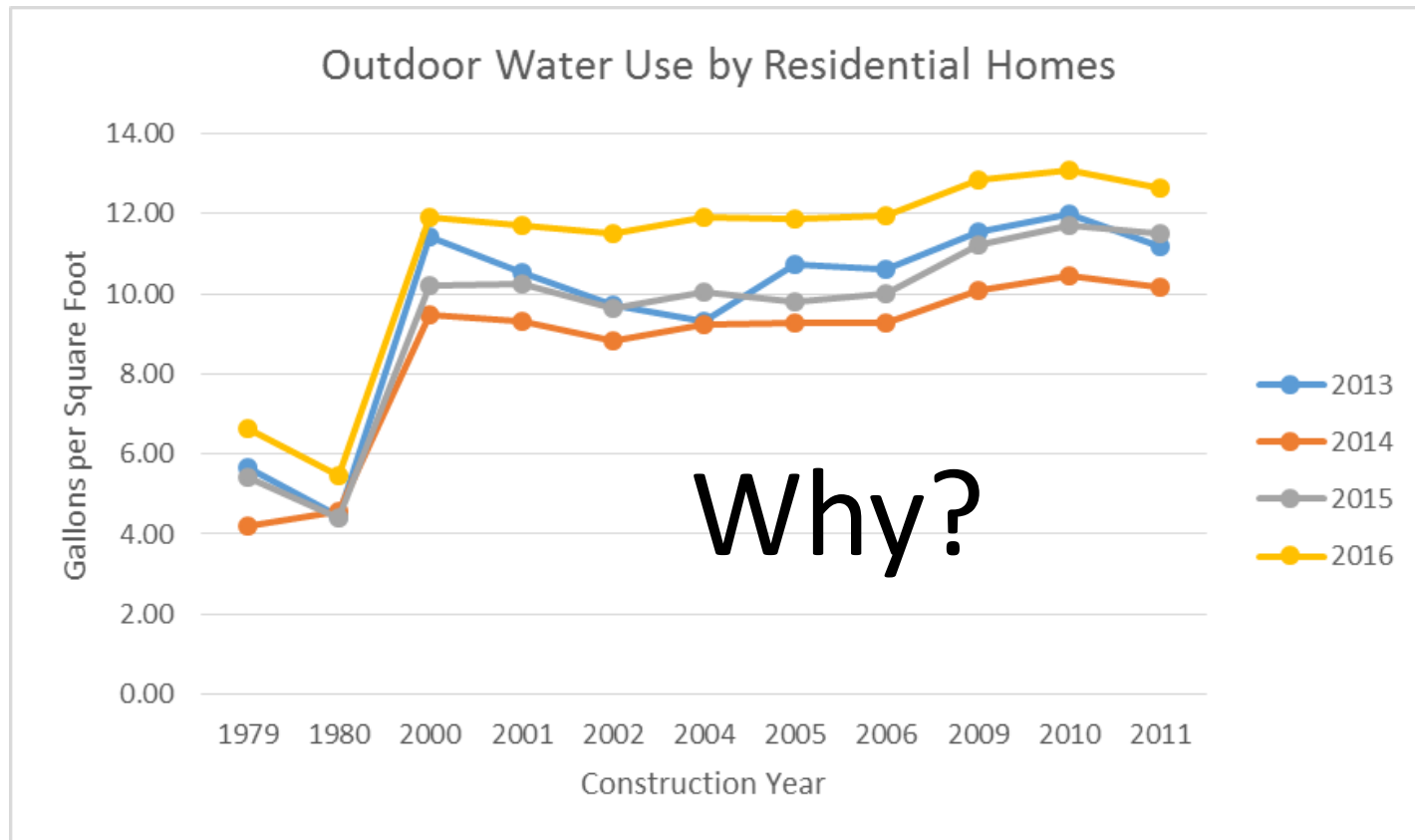
# Results

- Good news:



# Results

- “Bad” news:



# Theories

1. 1979-80 homes may not have irrigation systems
2. Income levels may influence behaviors
3. Education may need to play bigger role with irrigation system requirement





# Turf Replacement Program

- In place since 2007
- Replaces cool season turf with low water-use plant material

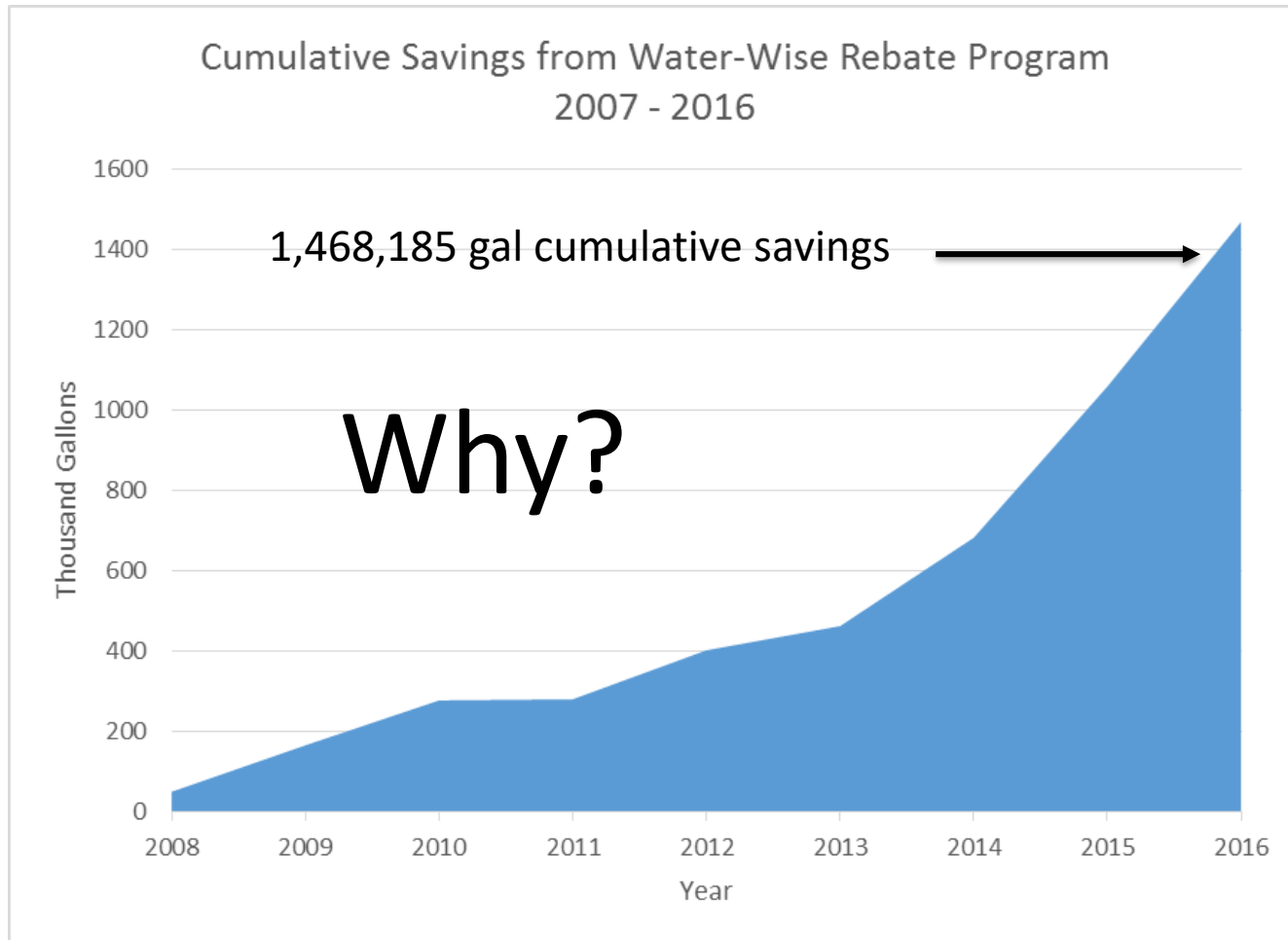


# Study

- Looked at participants and neighbors
- 623 customers (2007 – 2015)
- Removed outliers (no water use the year before)
- Normalized for weather

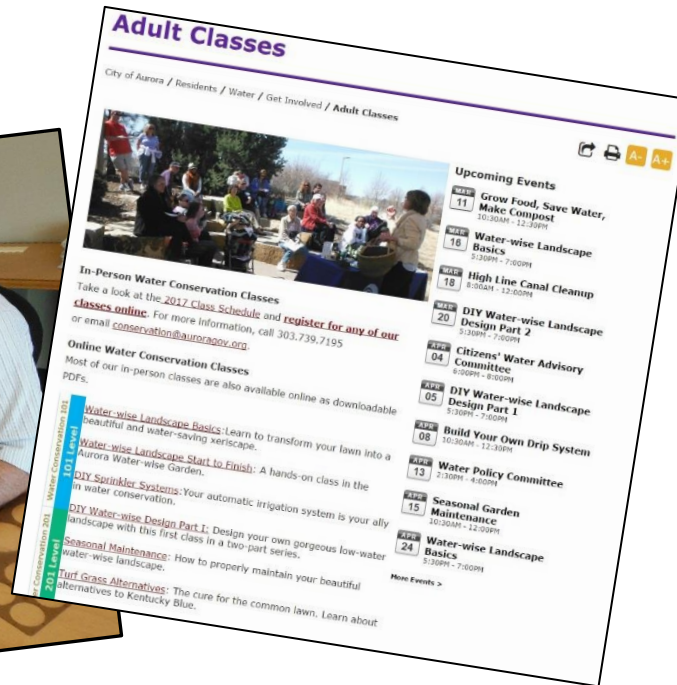


# Results



# Theory

- Education
  - Classes, requirements, designs
- Motivated customers



# Thoughts

- Landscape code can be effective
- Education is needed
  - Consider more outreach
  - Focus on new homeowners?
- Informed customers make the difference



# Questions?

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