

This presentation premiered at WaterSmart Innovations

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How Periodic Customer Surveys Assist in Conservation Program Development

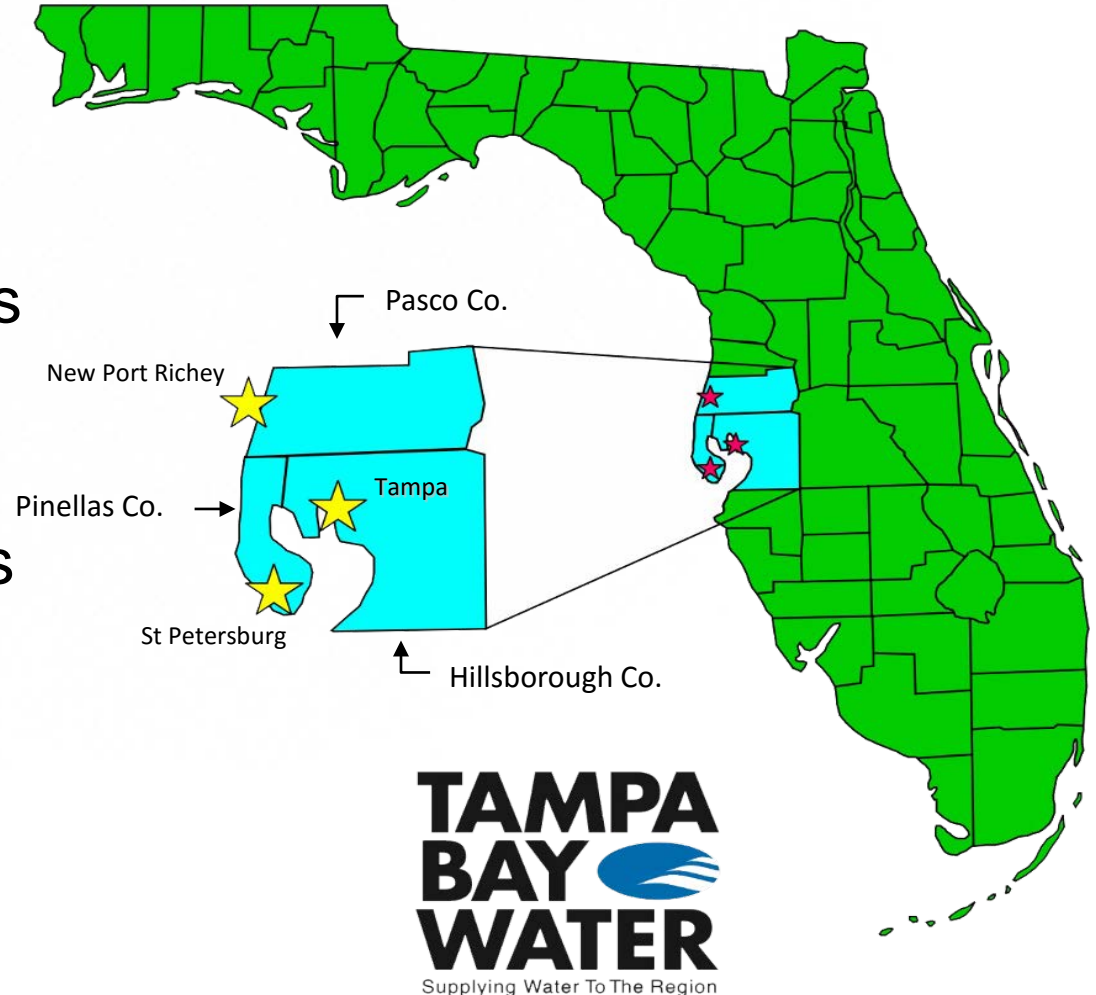
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Presentation Overview

- Background
- Overview of the survey instrument and implementation
- Trends in technologies
 - Indoor Fixtures
 - Outdoor Water Use
- Customer preferences for active efficiency programs
 - Participation in Past Programs
 - Willingness to Participate
- Use of survey results and conclusions

Agency Background

- Regional water supply authority serving over 2.3 million customers
- Six member governments, across three counties
- Member demands:
 - 2014: 227 MGD
 - 2035: 275 MGD



Background on Agency Efforts

- U.S. Energy Policy Act effective (EPAAct, 1994)
- Agency completed 1st Demand Management Plan (1997)
 - Dependability of EPAAct savings unknown
- Market for water efficient products evolved post-EPAAct
- Cost of future supply options has increased
- 2013 Demand Management Plan (DMP) included in Long-term Water Supply Plan
 - 1st opportunity to assess future passive efficiency projections post EPAAct
- Board approved DMP update every 5 years

Background

- DMP investigates benefits and costs of demand management as a quantifiable, alternative supply source
- Regional SF telephone survey assists in quantifying
 - prevailing water end uses
 - behaviors
 - remaining potential for efficient technology
- Survey instrument explores:
 - public acceptability of new and emerging water technologies
 - degree passive efficiency improvements are taking place in the region

Overview of Survey Instrument and Implementation

- Survey instrument consists of 5 parts
 - Participation in Past Programs
 - Indoor Fixtures
 - Outdoor Water Use
 - Willingness to Participate
 - Household demographics
- Survey participants randomly selected from member government billing data (links results to water use)
 - Statistical sample obtained for each member/planning area
 - Conducted via telephone survey (cell/landline)

Trends in Technologies and Landscapes

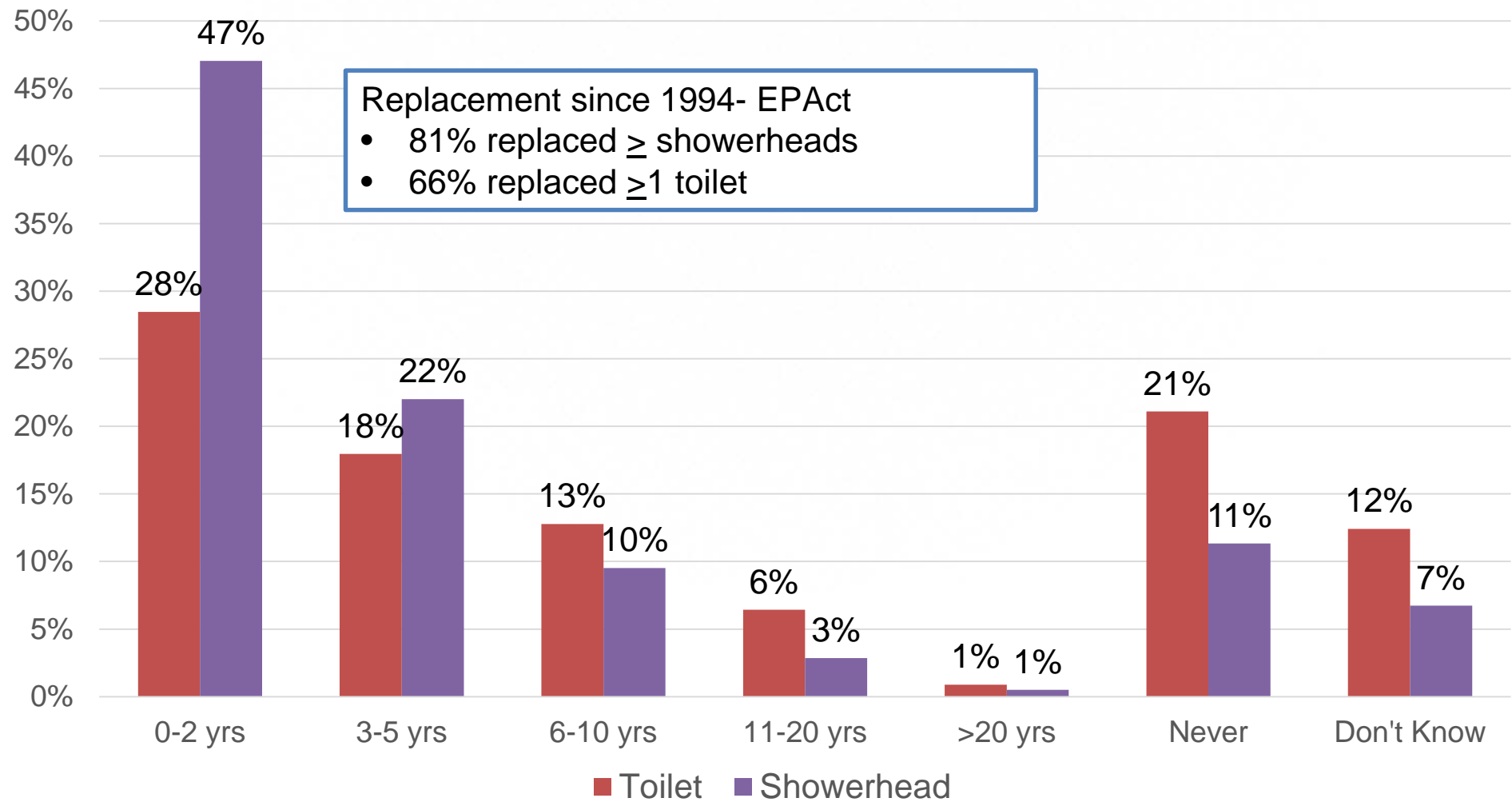


- Indoor
 - Presence of fixtures/appliances
 - Replacement practices
 - Awareness / prevalence of Water Sense products
- Outdoor
 - Predominant landscape material
 - Watering habits (dry vs. wet season)
 - Irrigation methods
 - Type of water used for irrigation
 - Maintenance practices

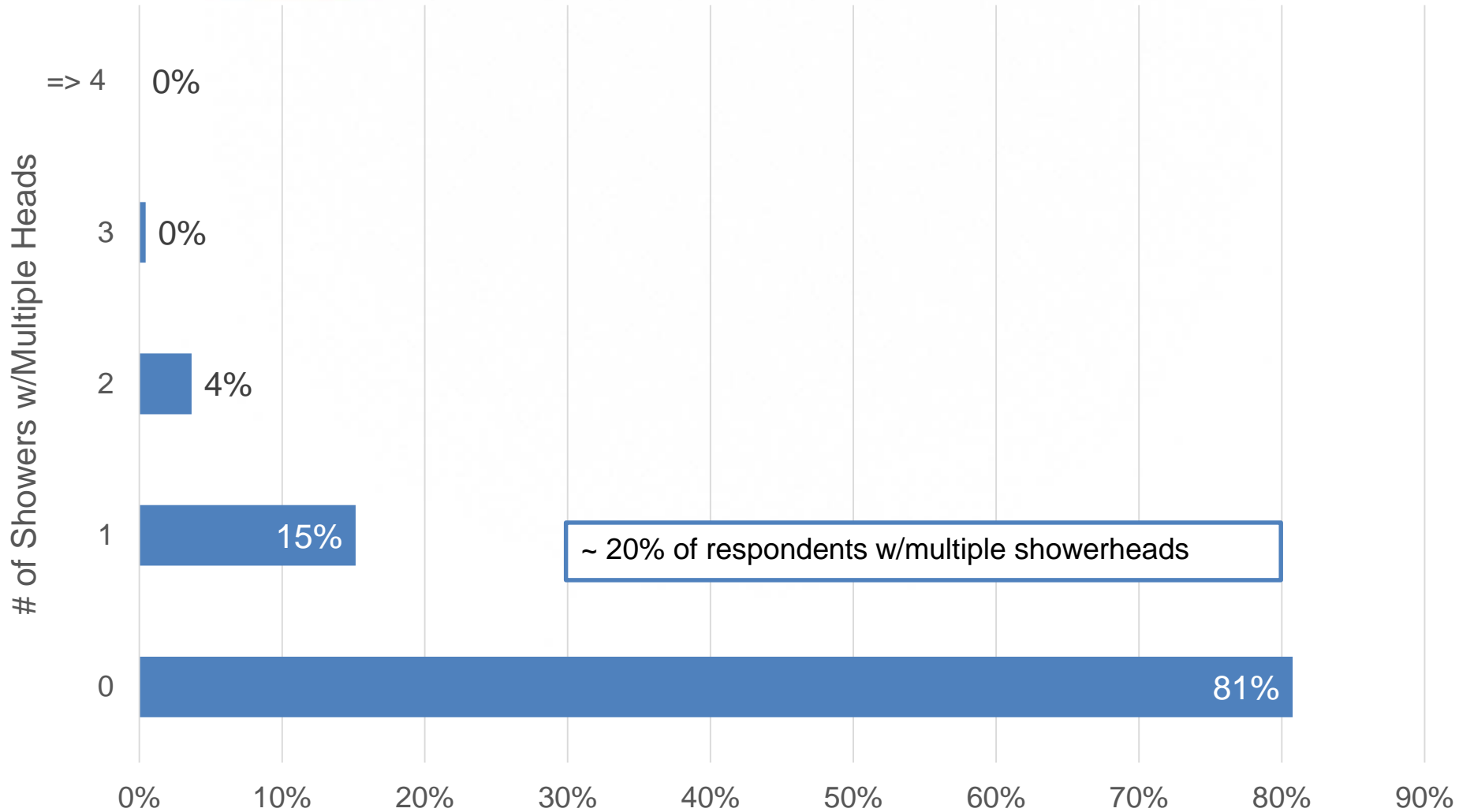
Toilet and Showerhead Replacement

Replacement since 1994- EPA Act

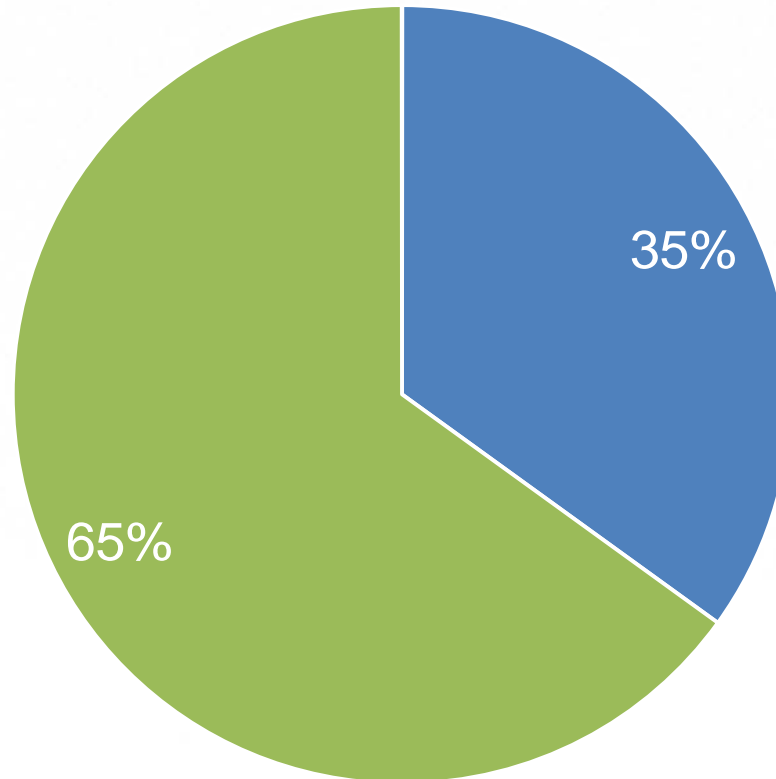
- 81% replaced \geq showerheads
- 66% replaced \geq 1 toilet



Prevalence of Homes w/Multiple Showerheads

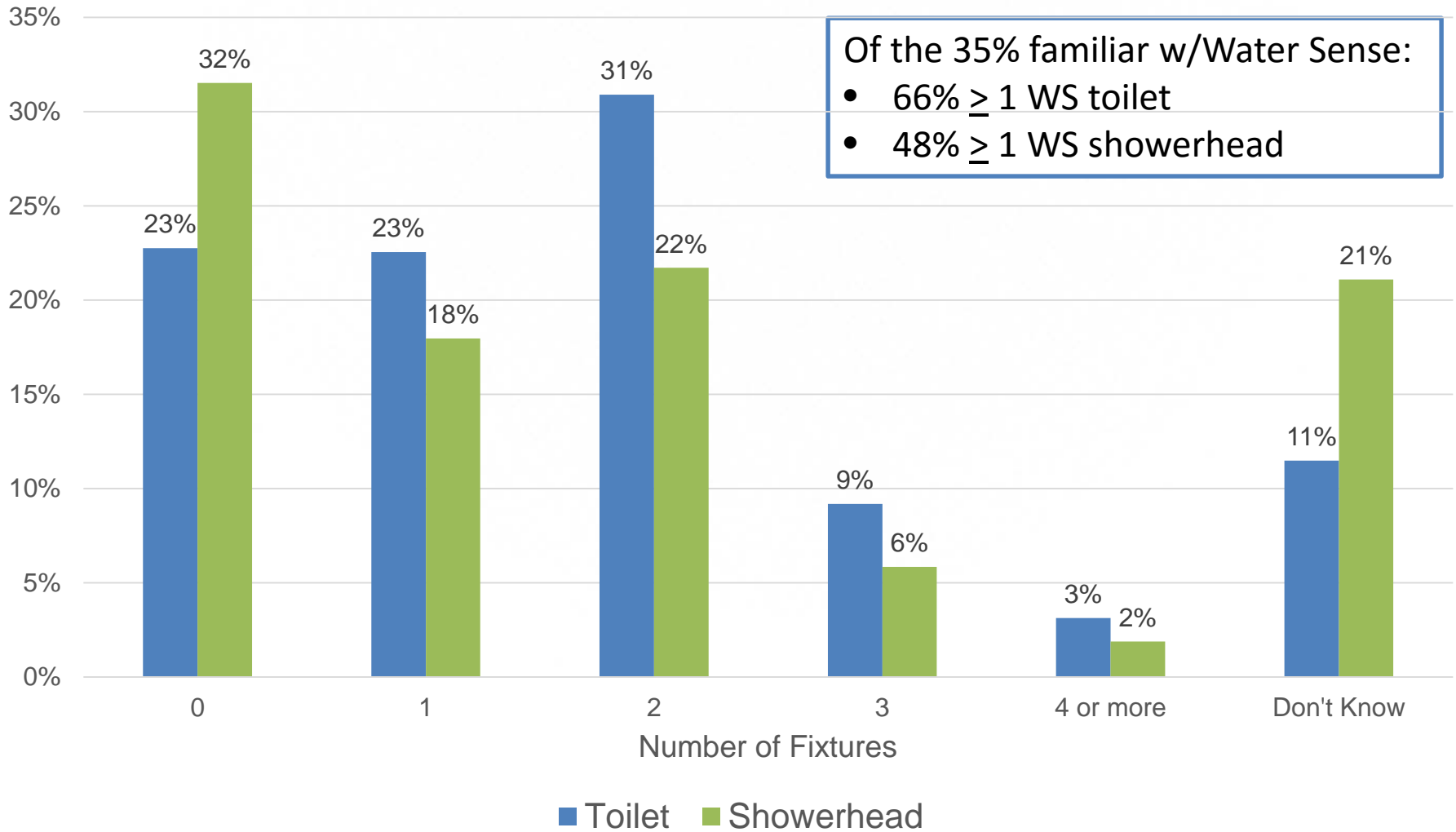


Familiar with Water Sense?

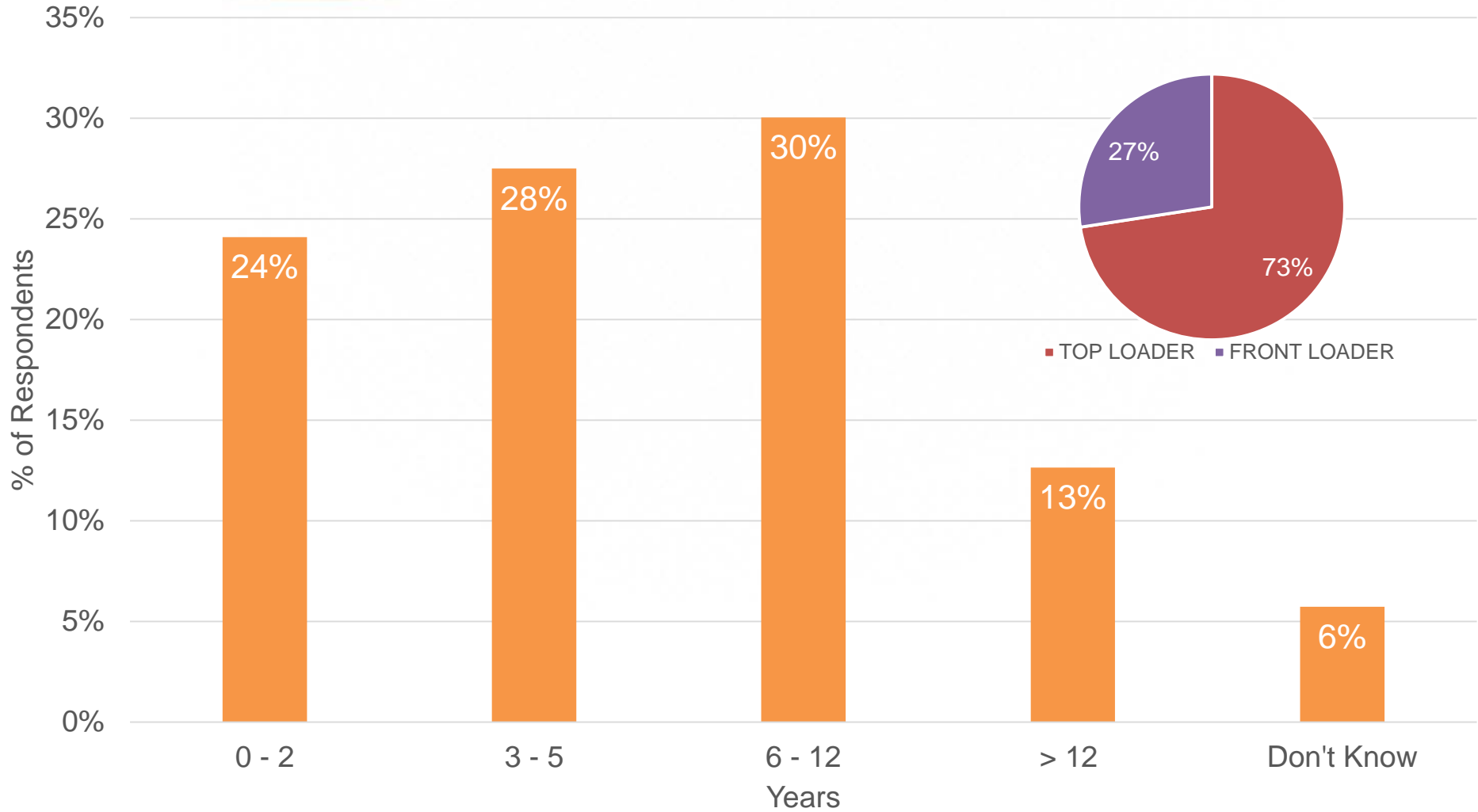


■ Yes ■ No

Presence of Water Sense Toilets and Showerheads

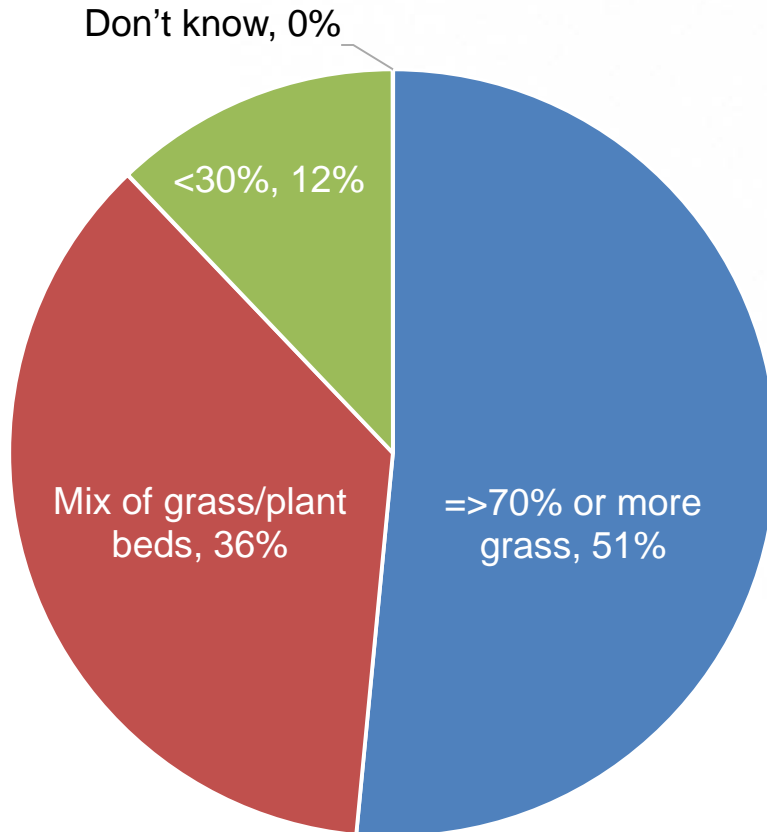


Age and Type of Washing Machines

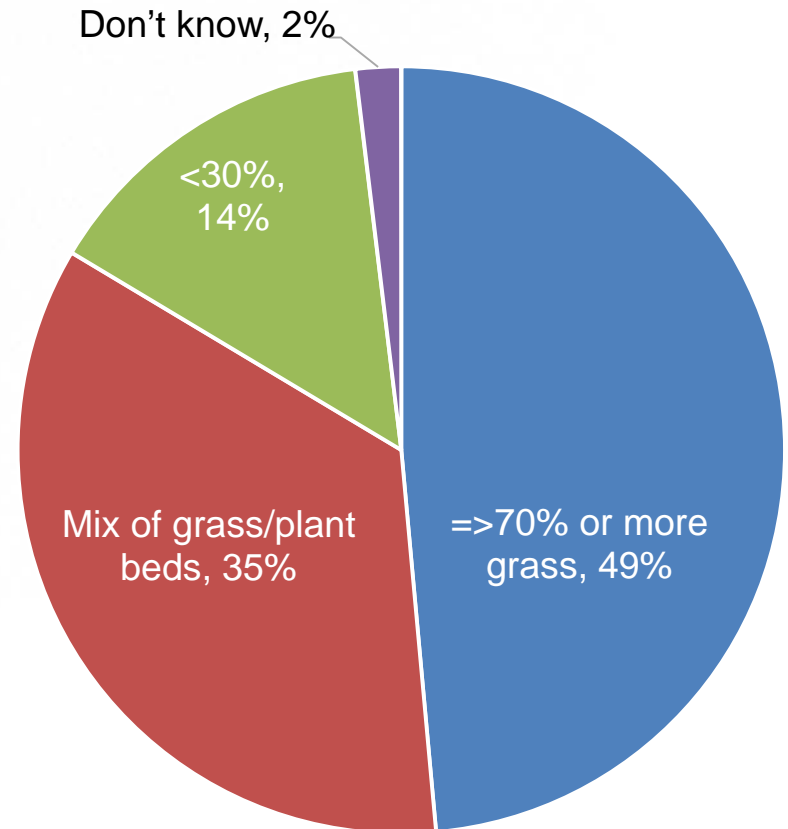


Predominate landscape material

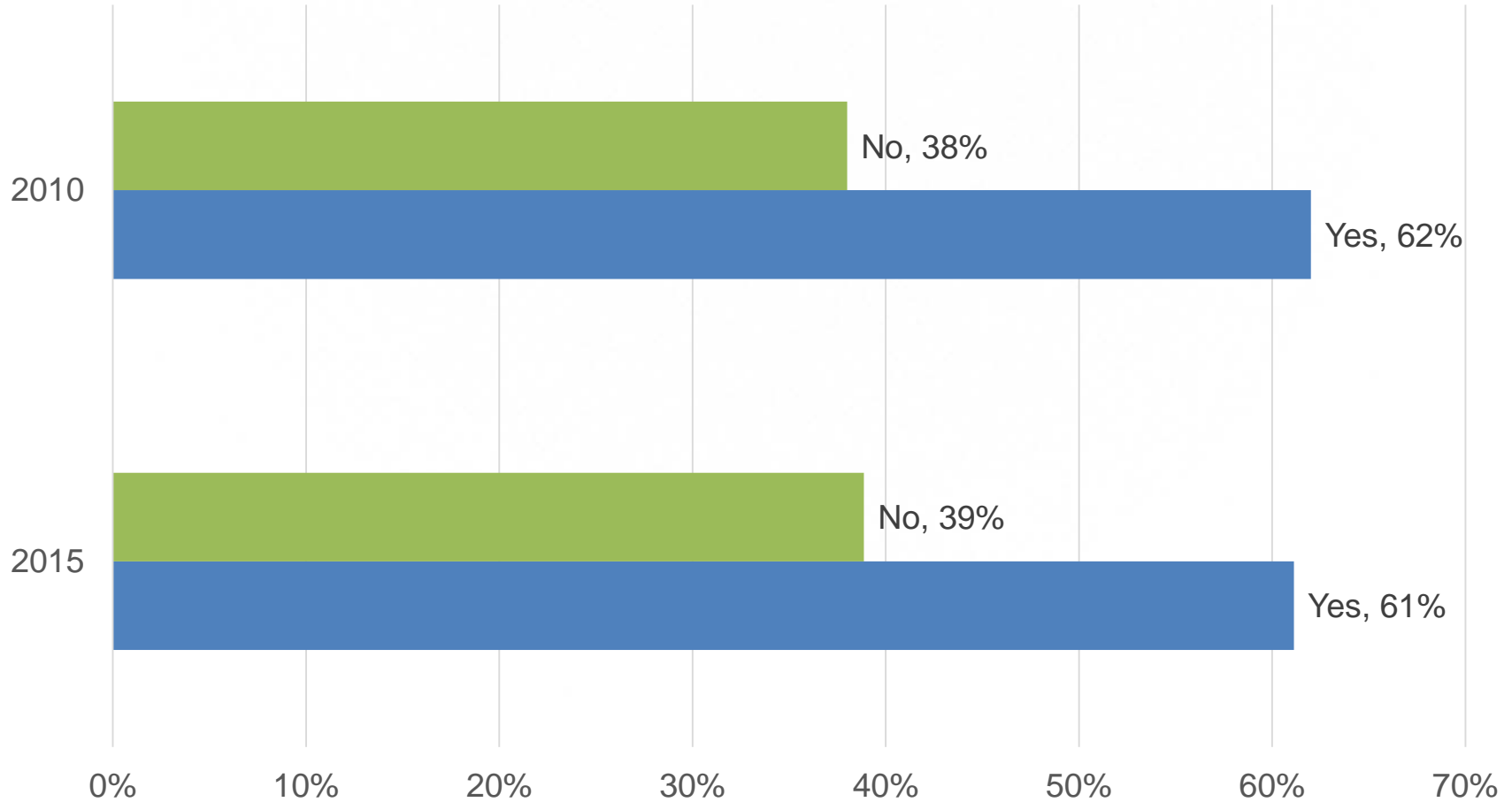
2010 Survey



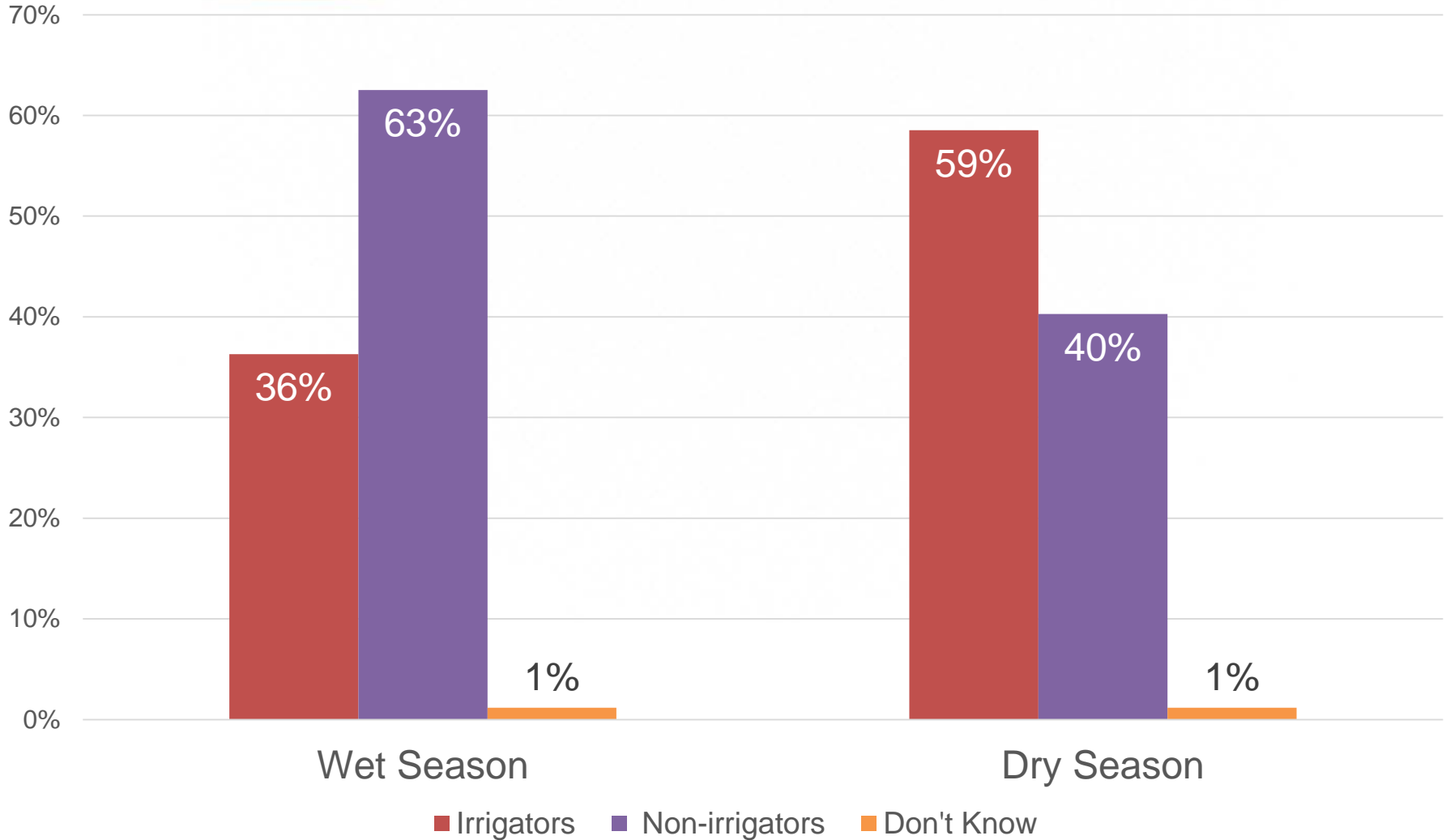
2015 Survey



Awareness of Florida Friendly Landscaping

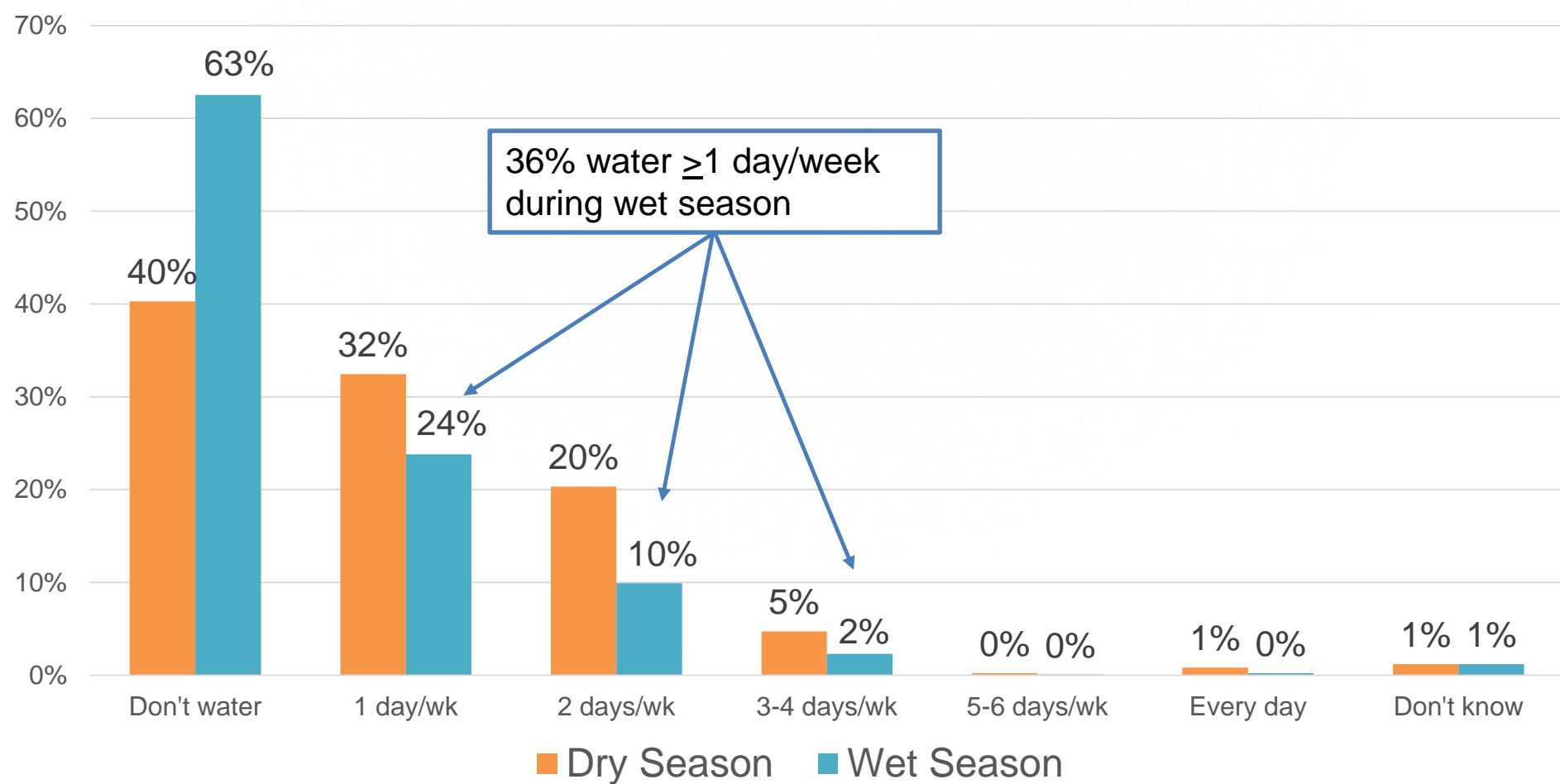


Seasonal Irrigators

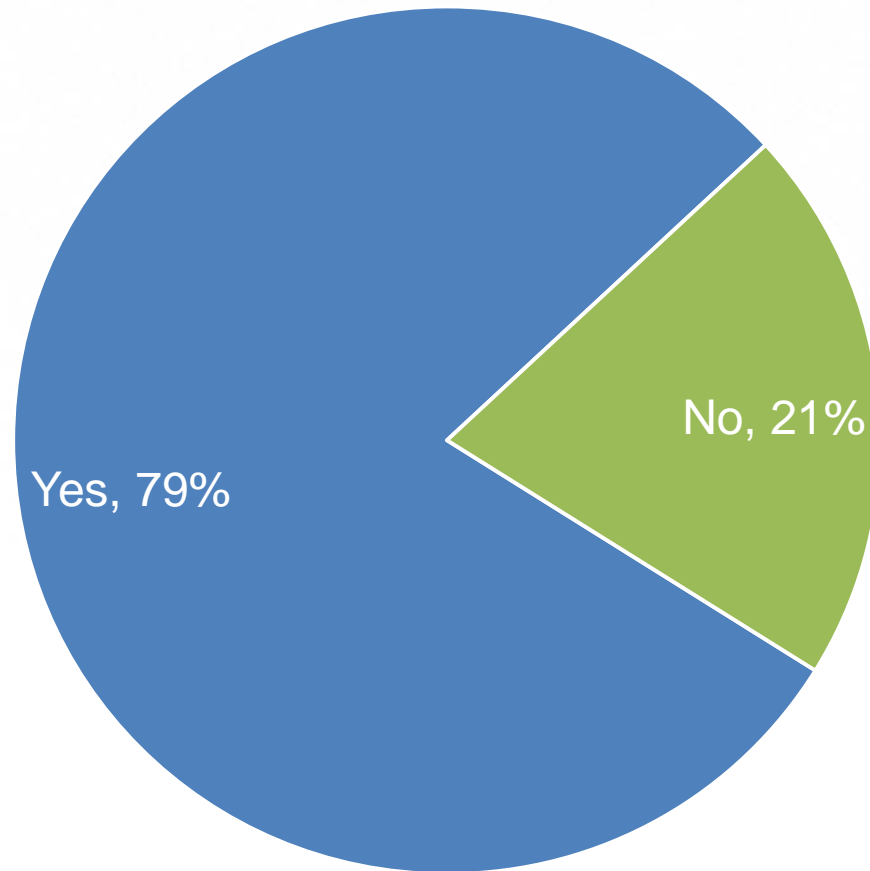


Watering Frequency

Wet and Dry Season Watering



Presence of Irrigation System



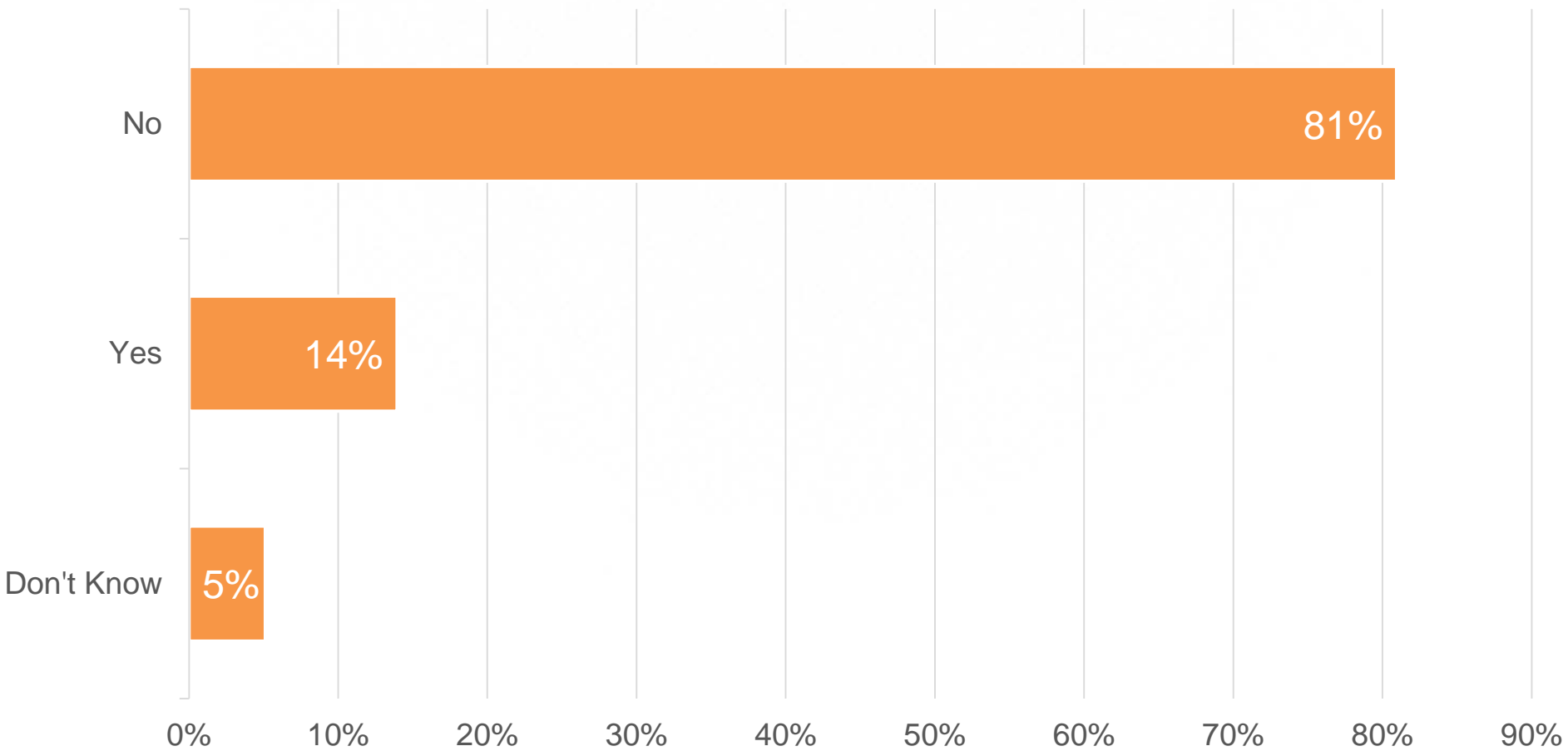
Irrigation Water Source and Timer Maintenance

- Irrigation water type
 - 48% tap water
 - 23% reclaimed
 - 22% shallow well
 - 7% don't know
- Timer maintenance
 - 81% maintain their own
 - 10% hire a professional service
 - 9% other (neighbor, owner, other)

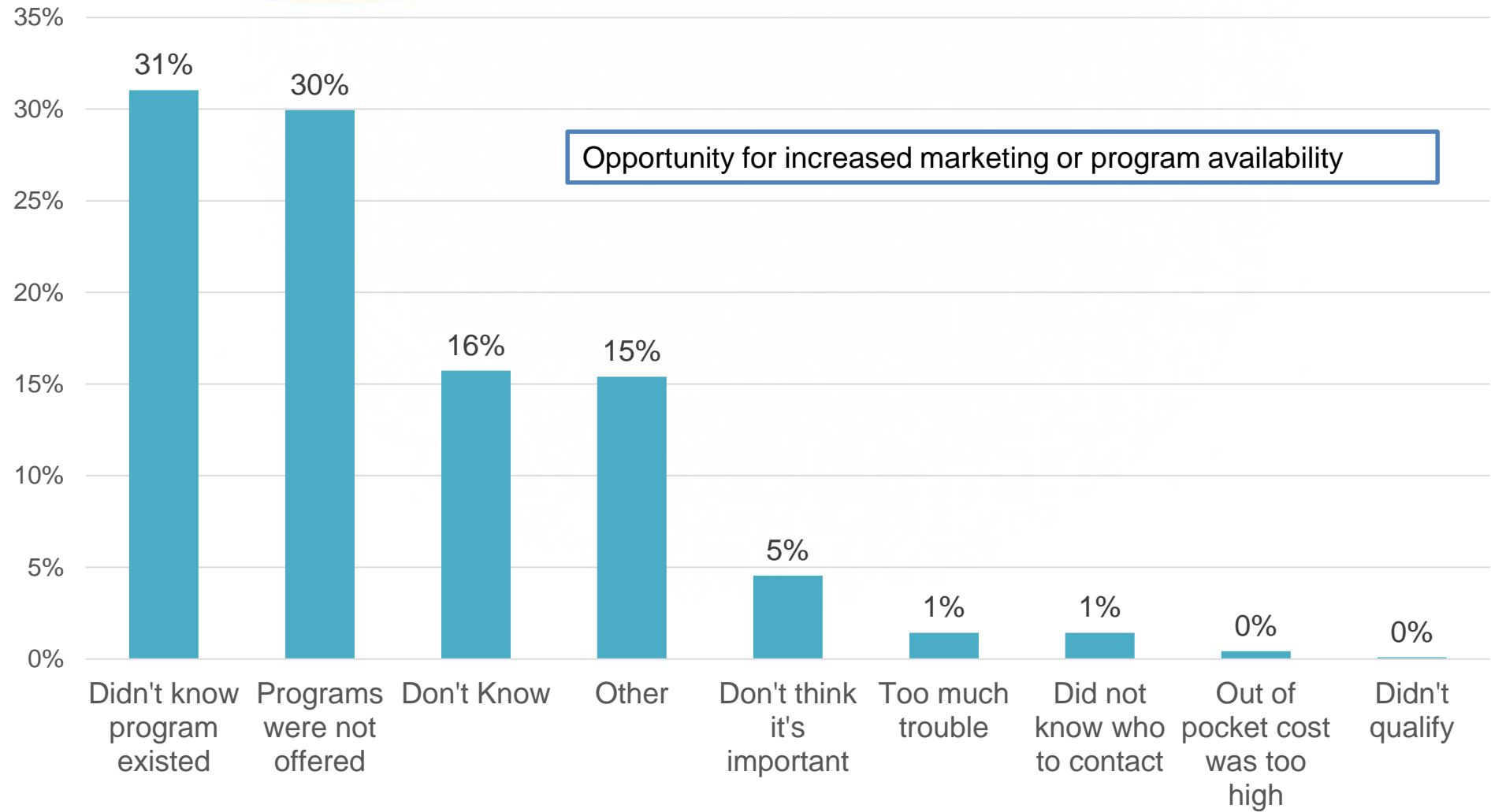
Customer Preferences for Active Efficiency Programs

Program Participation

Have you ever participated in a conservation program sponsored by your water utility?

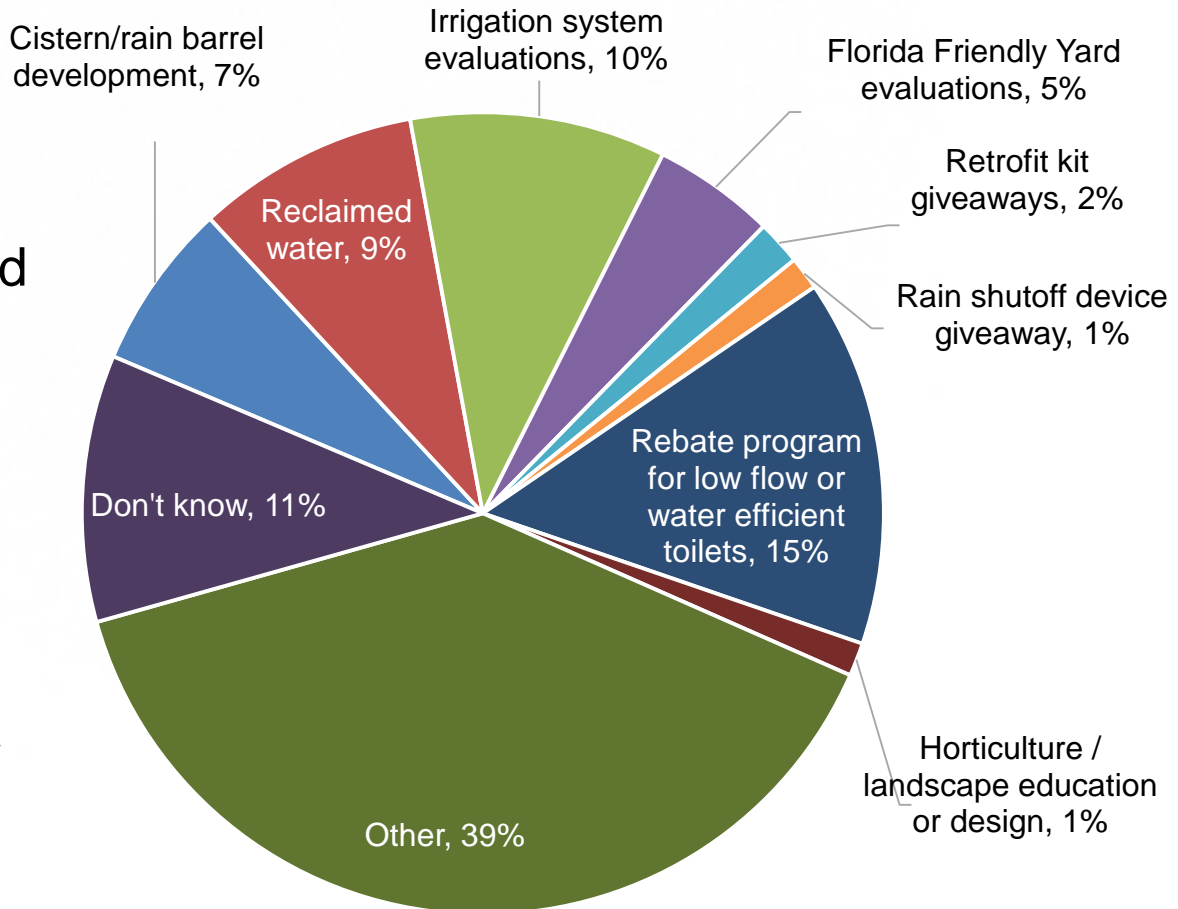


Reasons for Non-Participation

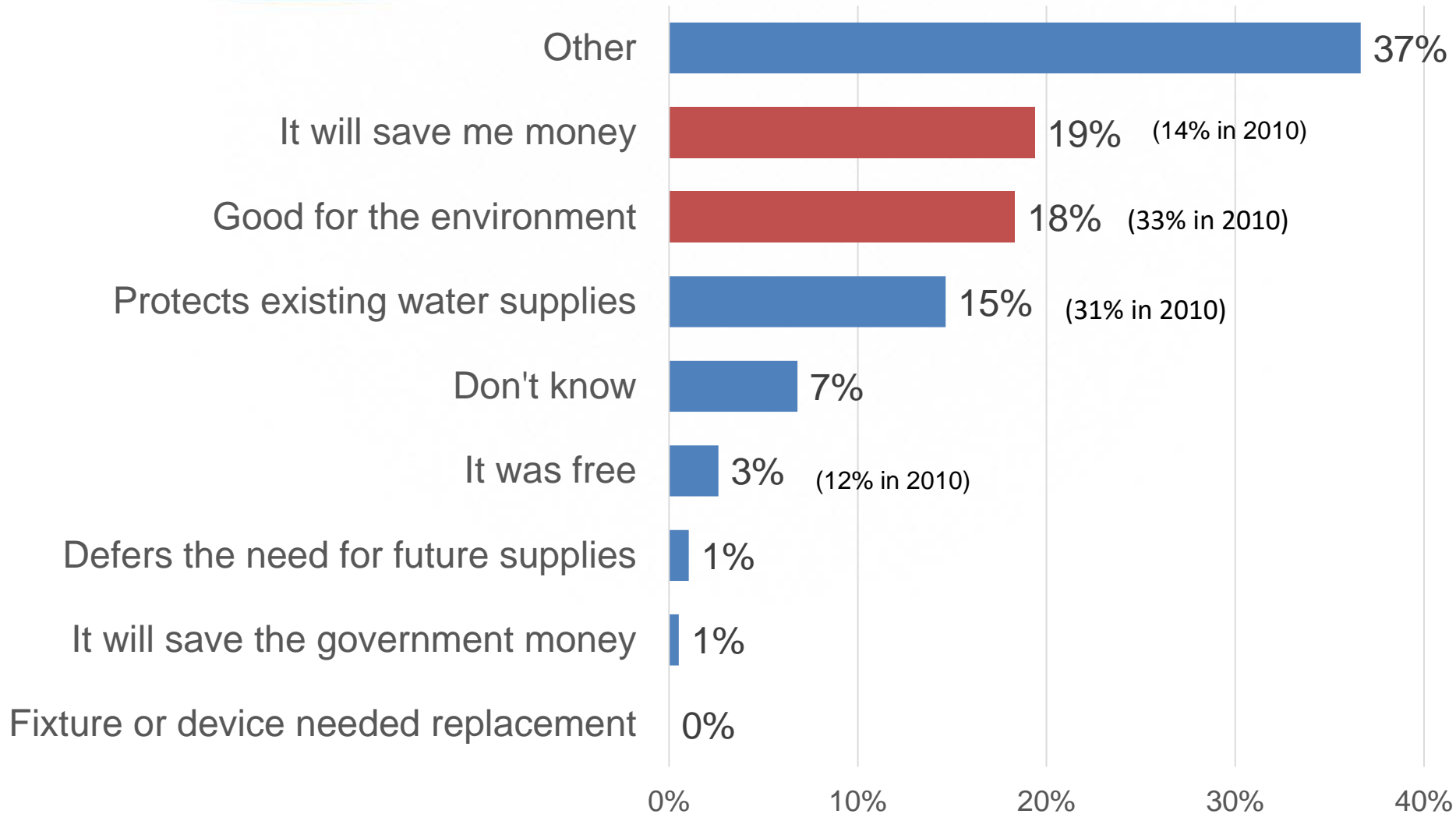


Program Participation

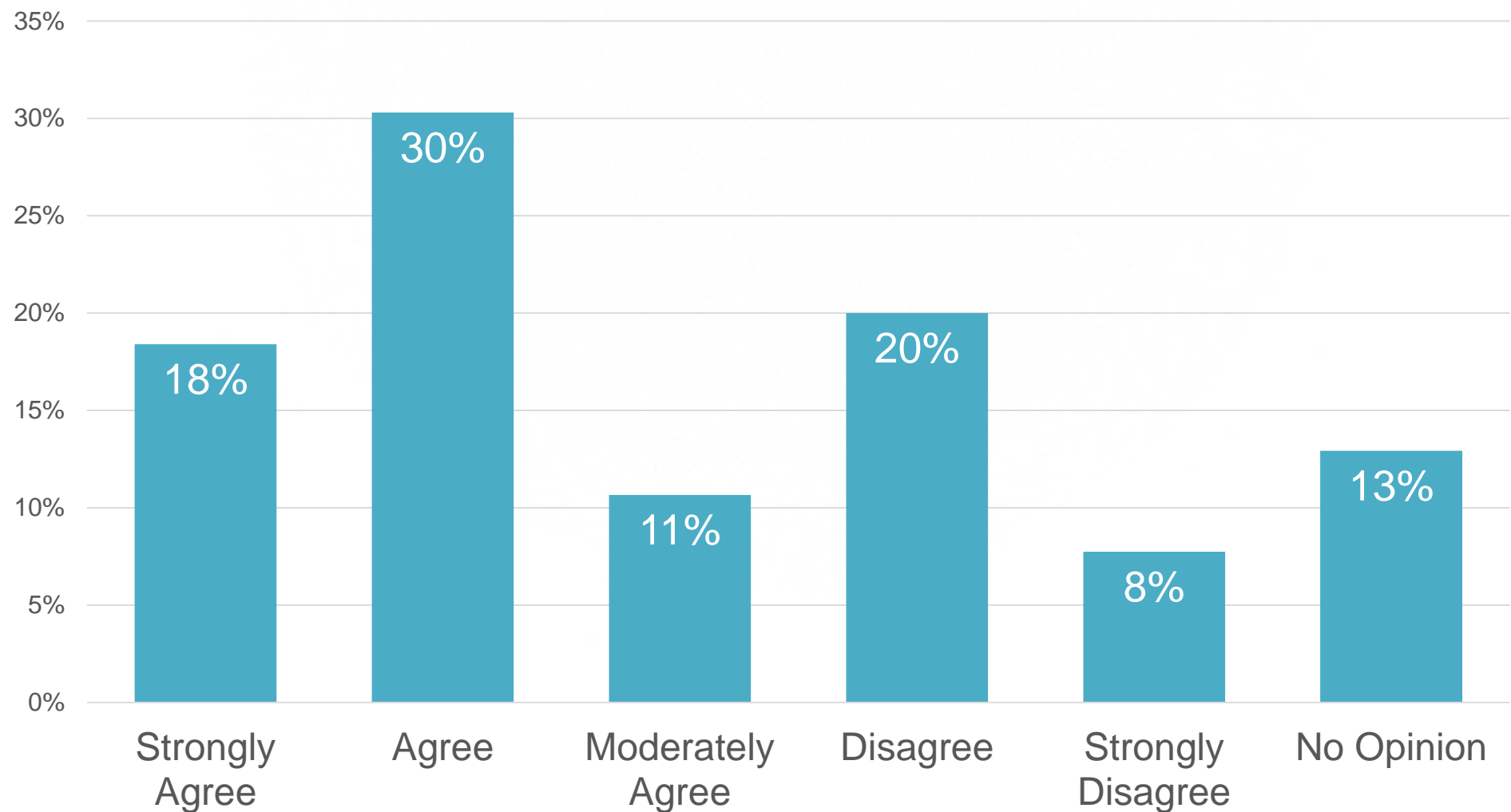
- Most popular programs
 - Toilet rebates
 - Irrigation system evaluations
- “Other” most often referred to mandatory water restrictions
- Some reporting of programs not offered by water utilities
 - May indicate private program availability or offered by another utility



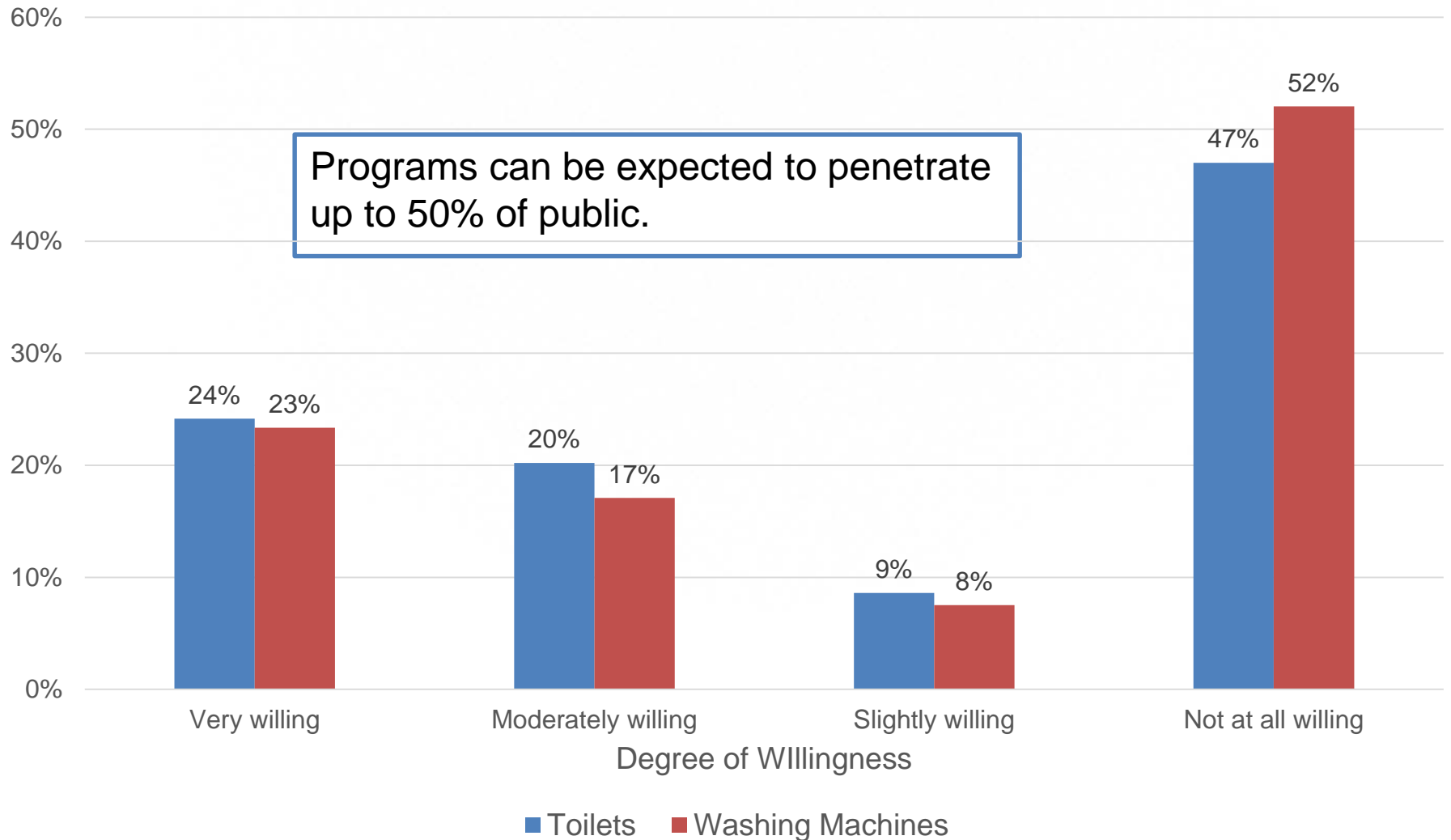
Reasons for Participation



Support of Utility Funded Cash Incentives to Conserve Water

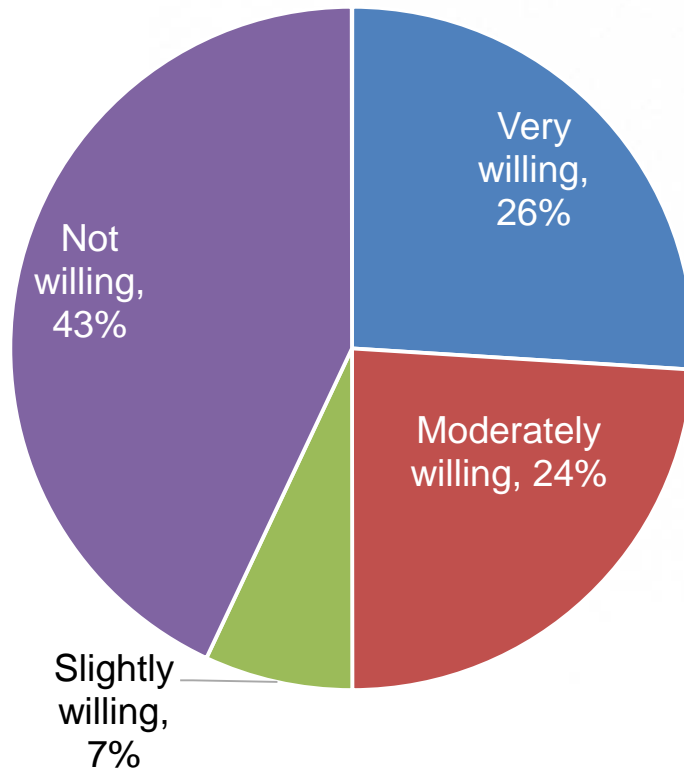


Replacement of Toilet or Clothes Washer for Financial Incentives

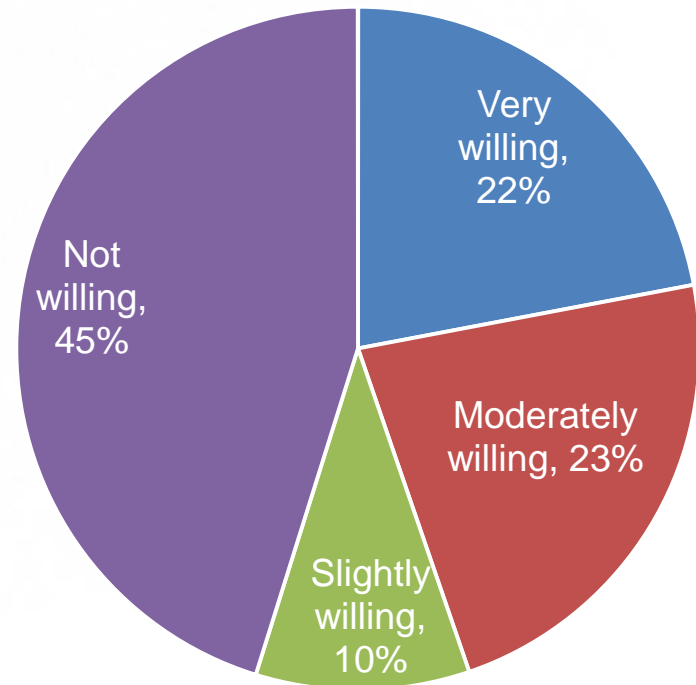


Installation of Florida Friendly Landscape for Financial Incentive

2010 Survey

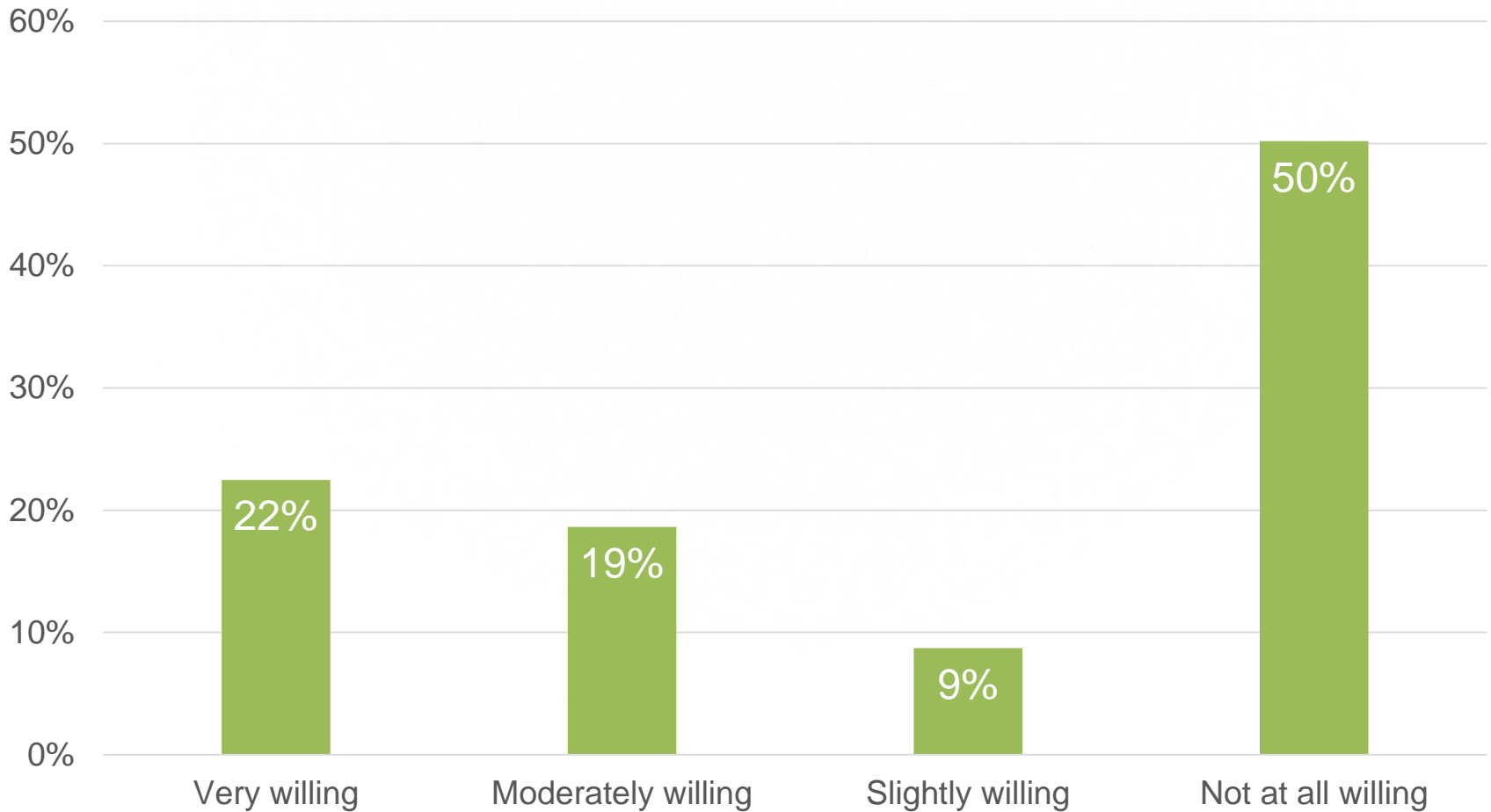


2015 Survey

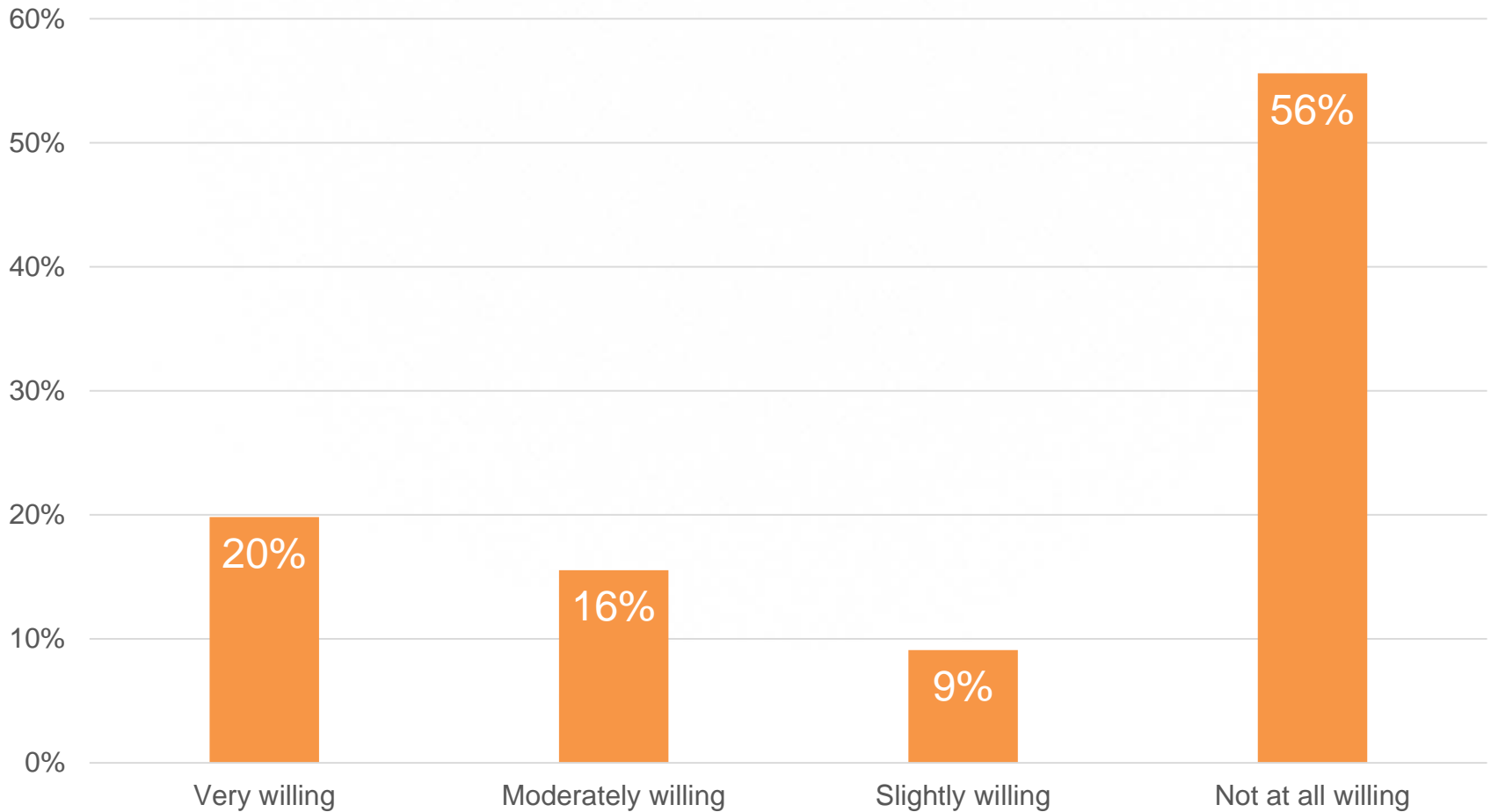


47% also willing to participate in workshop on how to design, plant and maintain FFL

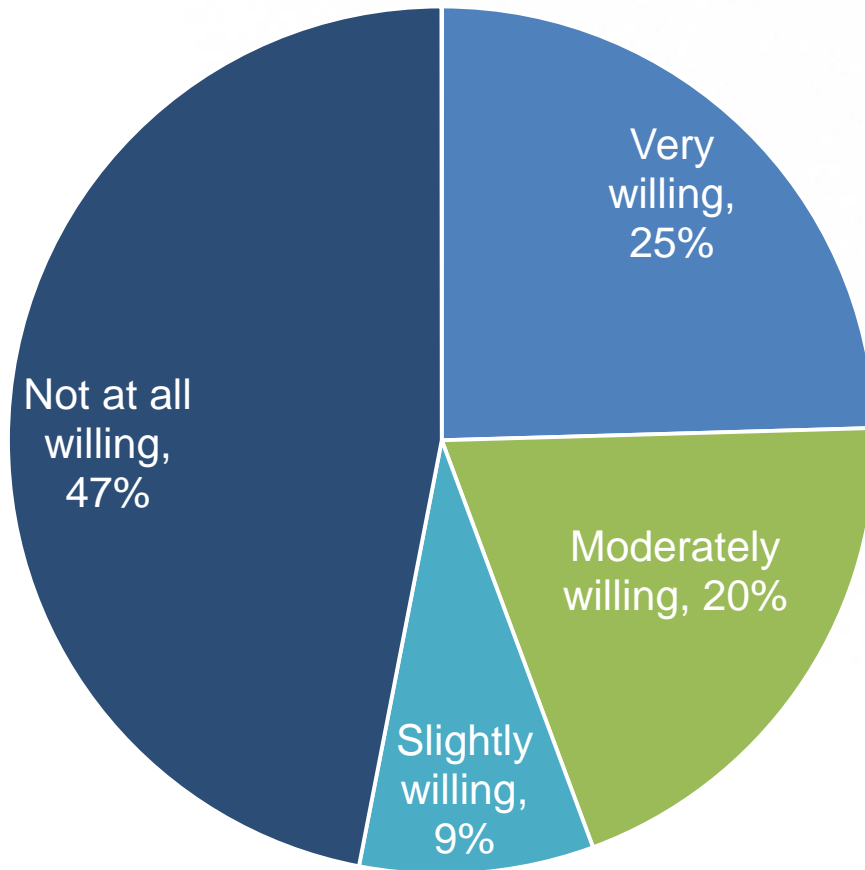
Financial Incentive for Irrigation Control Device (rain/soil moisture sensor)



Technical Assistance for Irrigation System / Practice Improvements



ROI on Irrigation Improvements

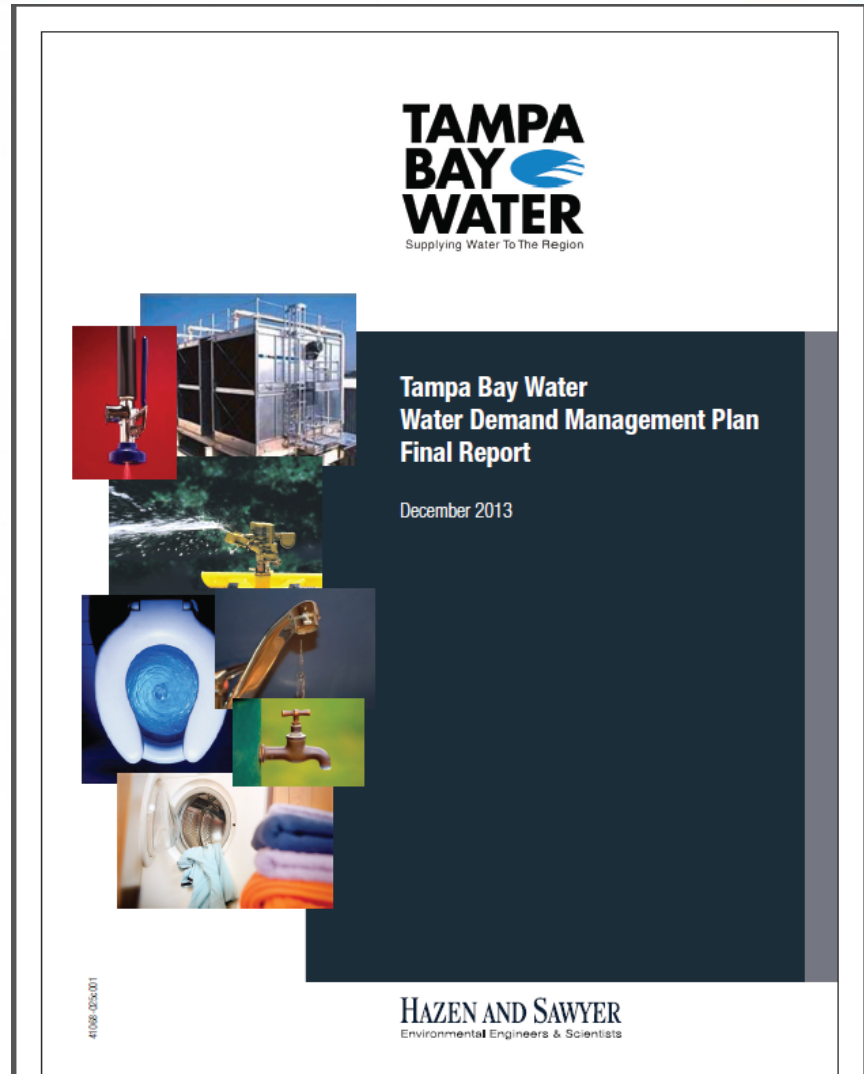


- 54% willing to invest in irrigation improvements to save \$\$ on utility bill
- 40% expect ROI in less than 2-yrs
 - 32%, ROI <1yr
 - 9%, ROI <2yr

Use of Survey Results for Demand Management Planning and Conclusions

Integration of Survey with Demand Management Planning

- Demand Management Plan integrated into water supply portfolio
- Identifies conservation potential / savings rates for each member/region
- Survey used to establish market penetration rates and monitor trends
 - Indoor technologies
 - Outdoor technologies/use
 - Customer preferences

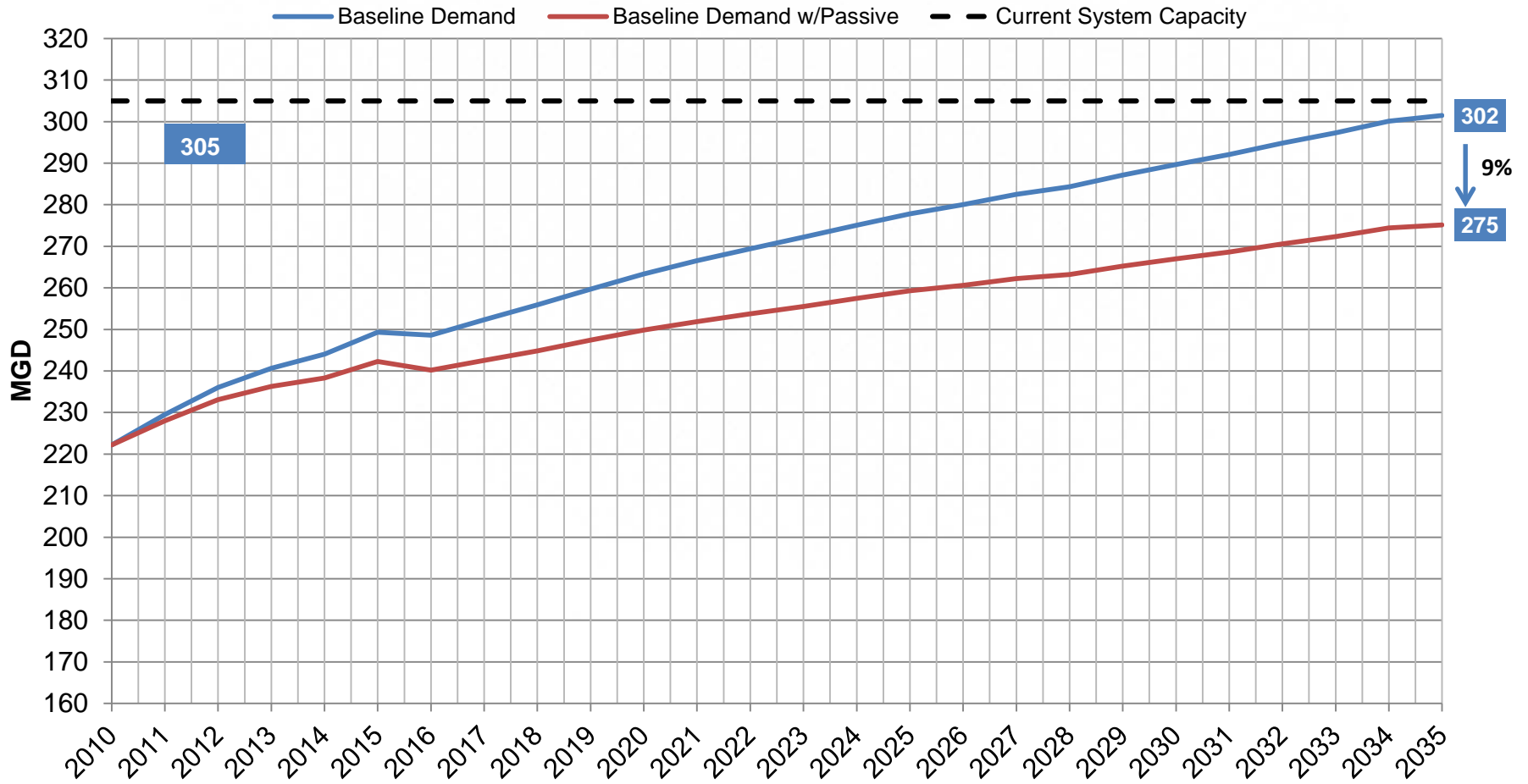


Use of Survey Results

- Identifies the relative presence of water efficient technologies and other information needed to generate estimates of the market saturation of water end uses
- **Survey results integrated with national and regional market penetration estimates to provide local baseline**
- Provides prevailing degrees of efficient water practices and conserving attitudes
- Identifies other socioeconomic factors that can affect long-term demands and participation in demand management programs.

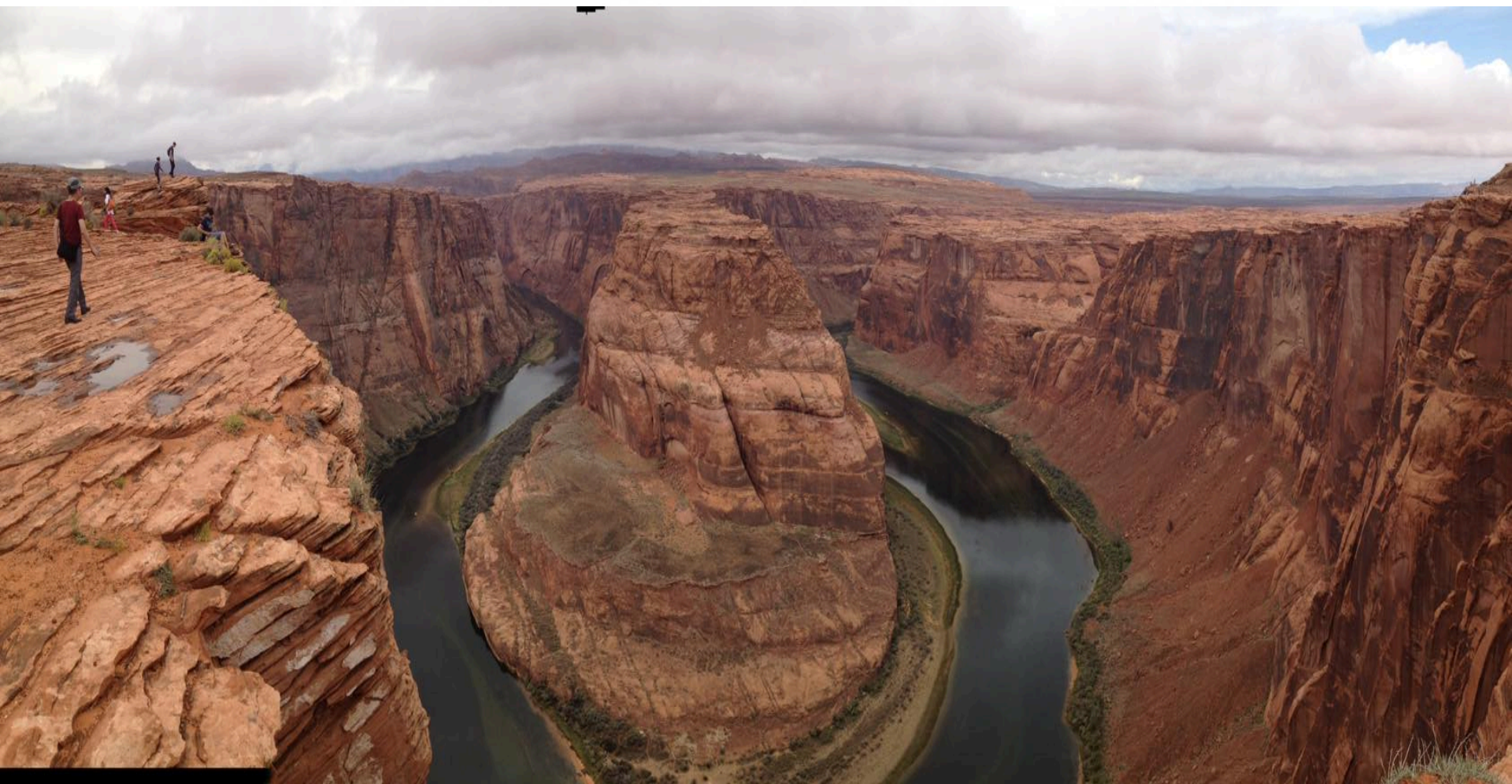
Passive efficiency reduces future demand by 9 percent in 2035

Forecast with Passive Efficiency and Passive Savings



Conclusions

- Supports development of passive efficiency
 - Provides baseline of technologies/uses in region
- Identifies potential for remaining passive and active market potential
- Provides guidance on program development and implementation strategies
 - Better understanding of customer preferences
- Permits integration of impacts of both active and passive efficiency into demand forecasting / changes over time
- Continued periodic survey permits monitoring of long term trends



Thank you! Questions?

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