

no more sprinklers in the rain!

—

insights from an innovative rainfall communication intervention

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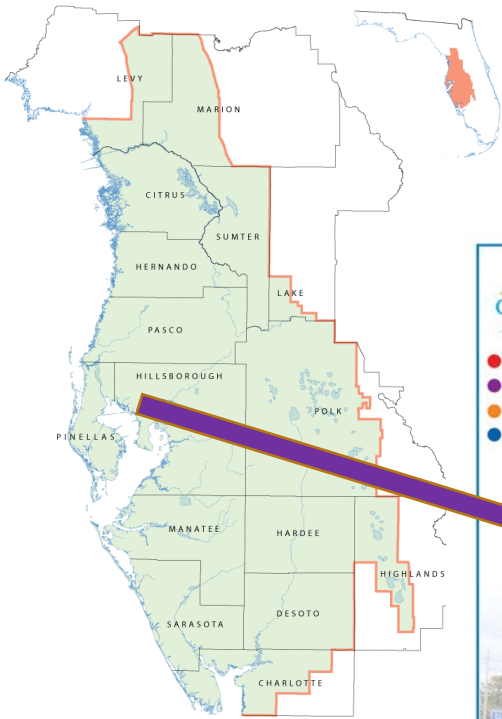
February 21st, 2024



INTRODUCTION

- Florida receives ~ 60" of rain a year with most during wet season (Survis et al. 2017).
- Residents' voluntary water use reductions critical (behavior change)
- Residents water lawn using only **irrigation without considering rainfall** (Survis & Root 2017).
 - **Irrigation as a supplement to rainfall** is the desired mindset





RAINFALL SIGNAGE TO REDUCE RESIDENTIAL IRRIGATION

52 weeks of rainfall data and lawn water requirements

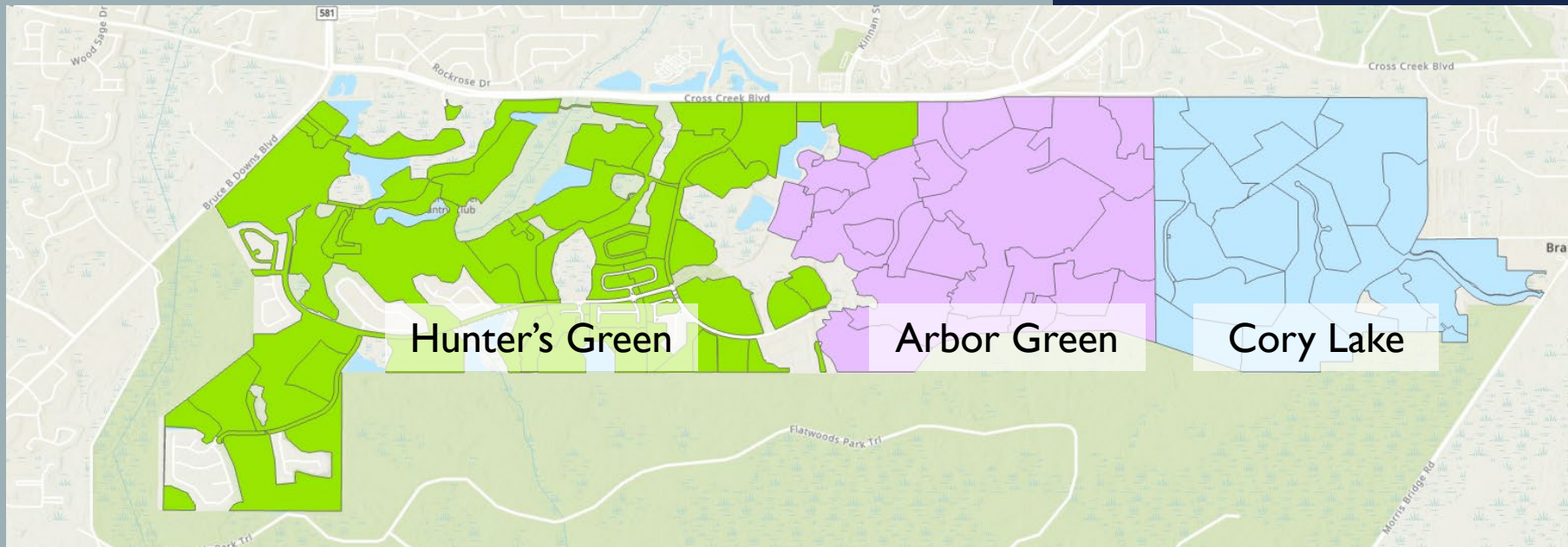


SURVEY METHODS

- Target population: ~ 1,500 Hunter's Green households
- Pre- and post- intervention surveys to gather knowledge, perceptions, and behaviors pertaining to outdoor water use, barriers to conserving water
- Screening criteria: ≥ 18 years of age with consent indicated
- Bimodal, electronic and mailed
- Pre-survey total: 440 electronic surveys and 184 hard-copy
- Post-survey total: 463 electronic surveys and 90 hard-copy

WATER USE ANALYSIS METHODS

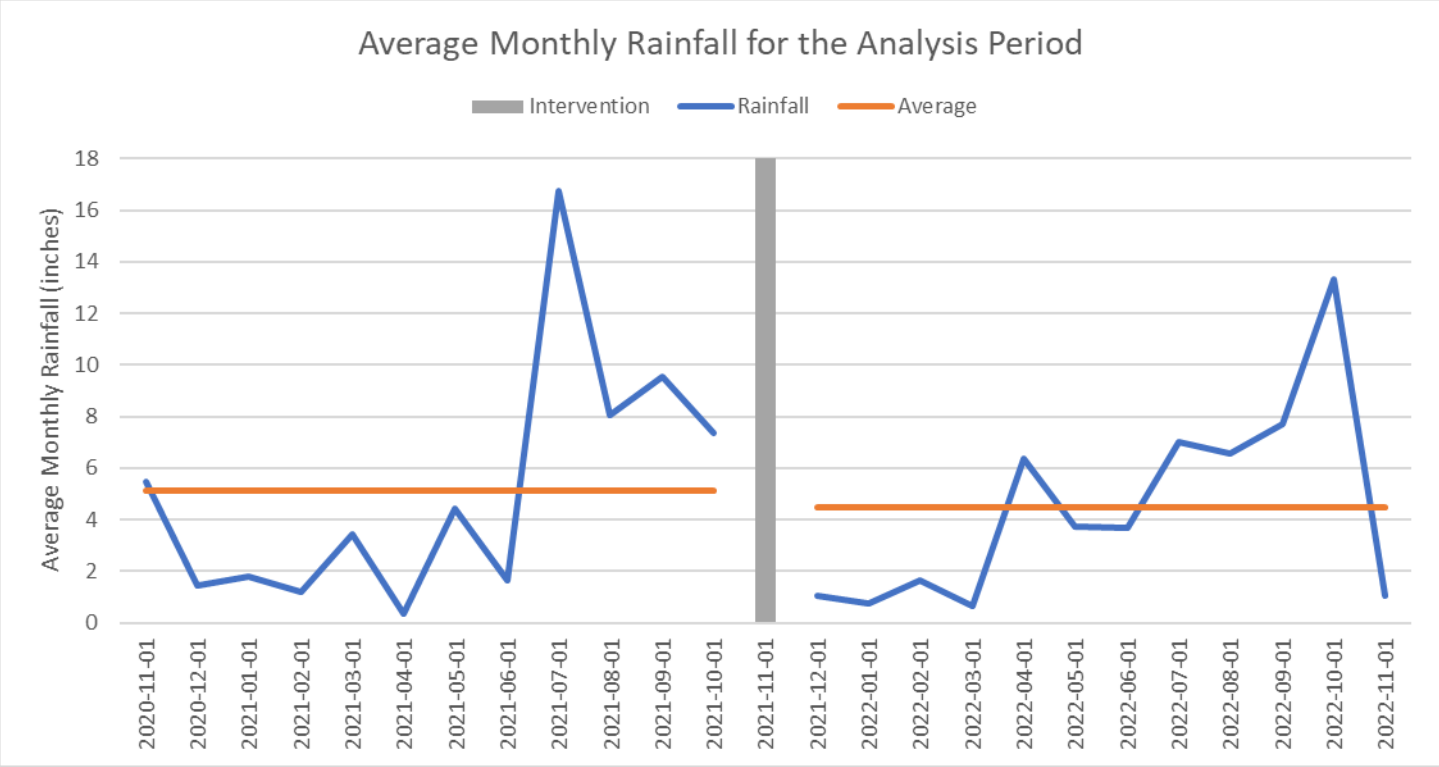
- Comparison group selected based on
 - Proximity
 - Age
 - Owner Occupied
 - Outliers removed



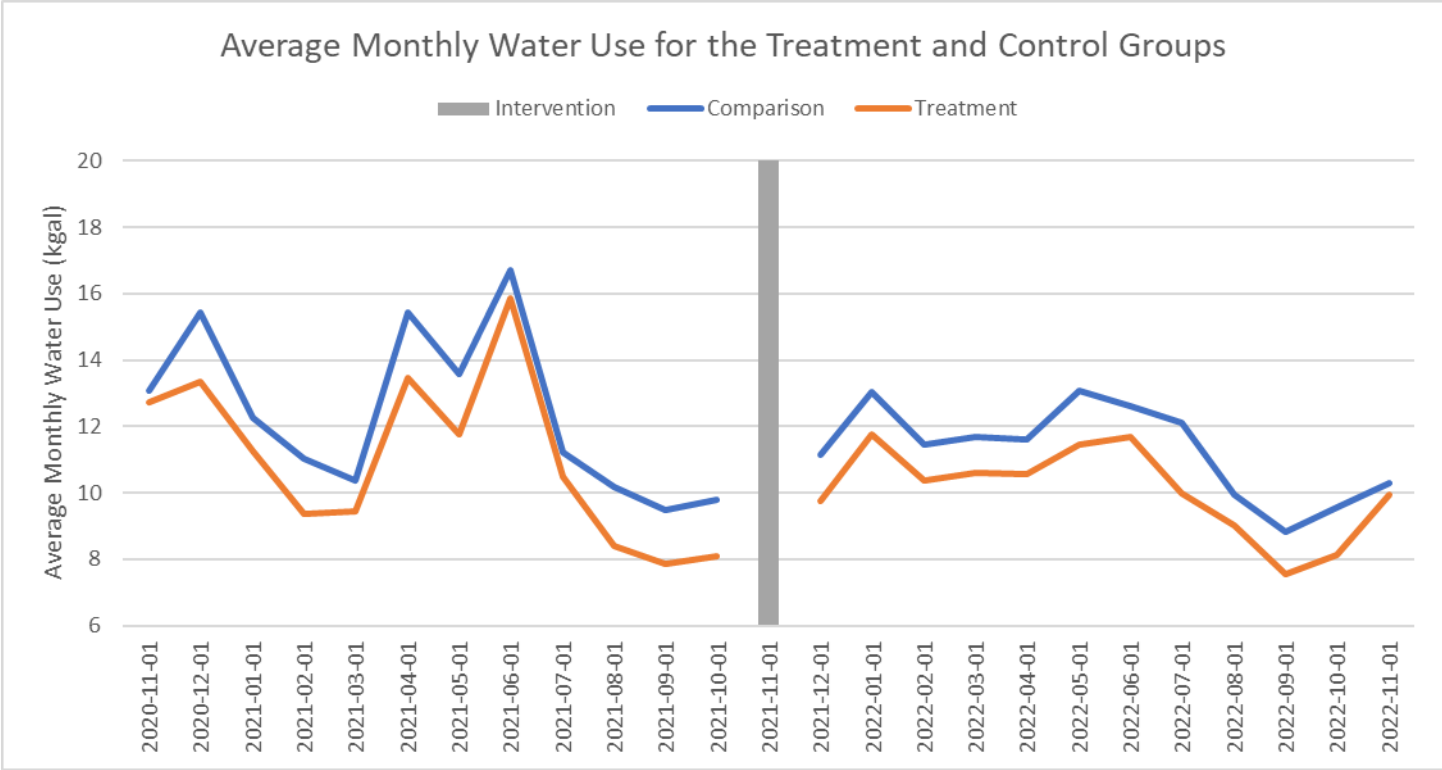
FINDINGS

WATER USE ANALYSIS

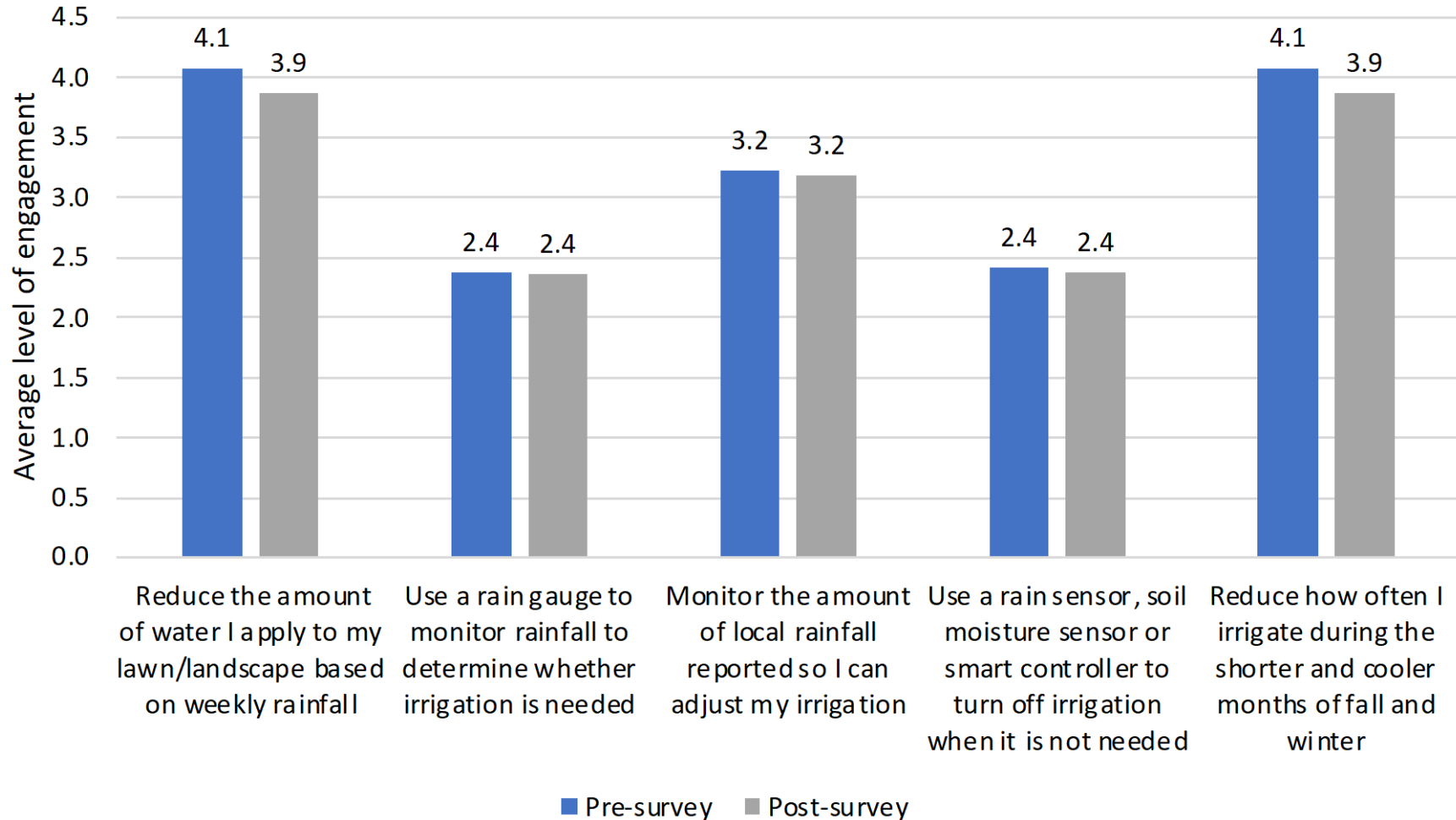
RAINFALL



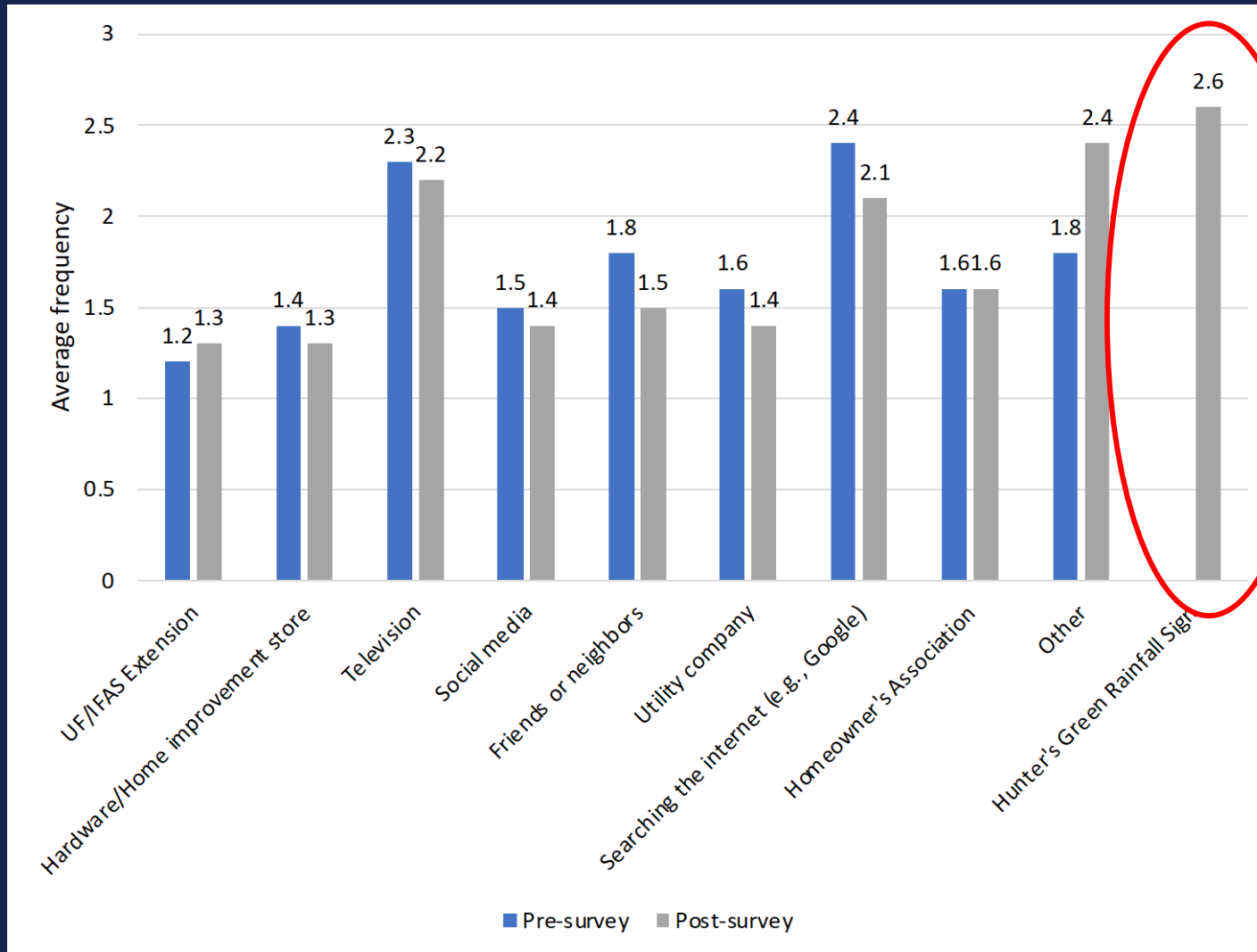
WATER USE ANALYSIS FINDINGS



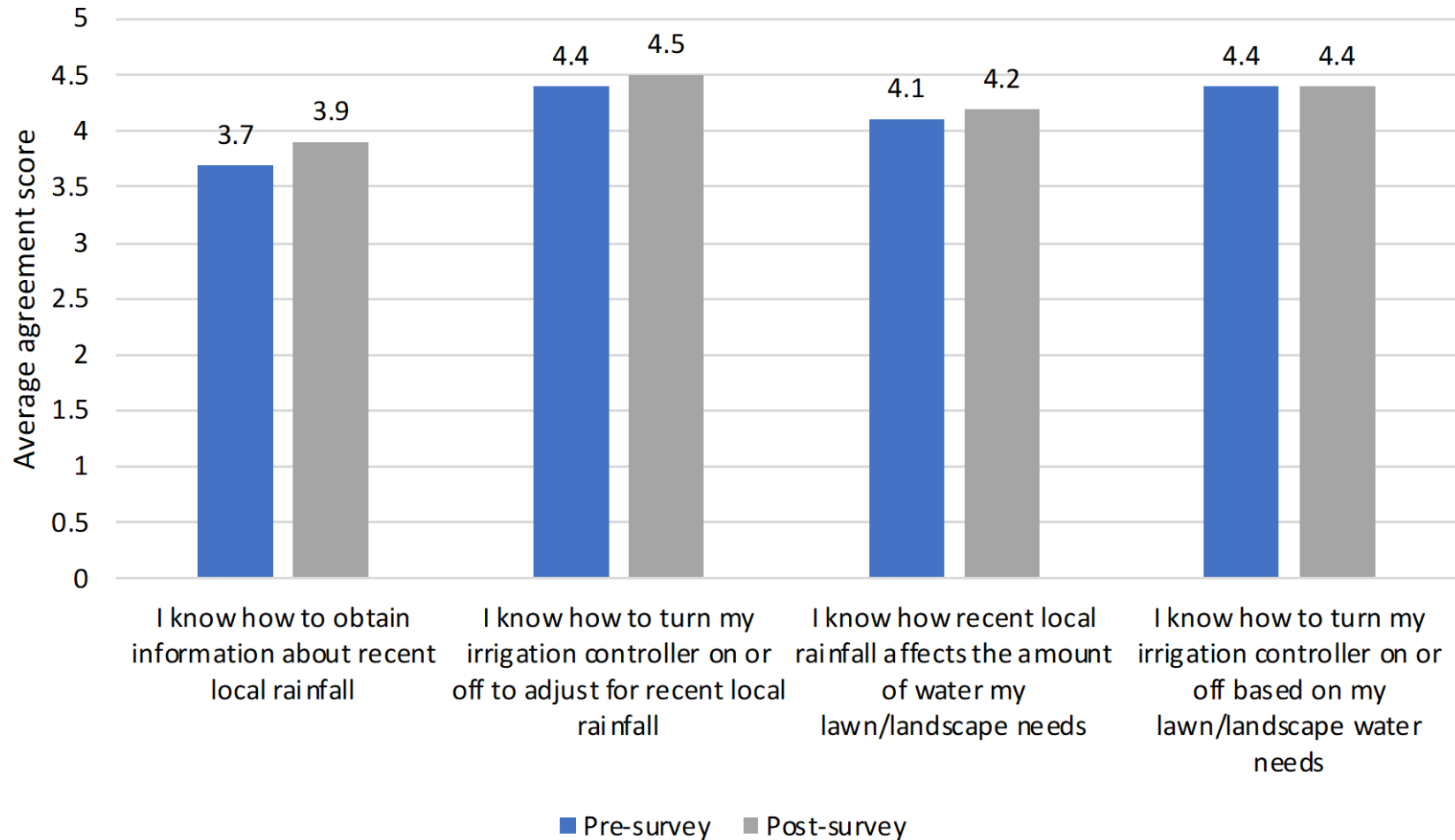
RESIDENTS' ENGAGEMENT IN LANDSCAPE WATER CONSERVATION PRACTICES



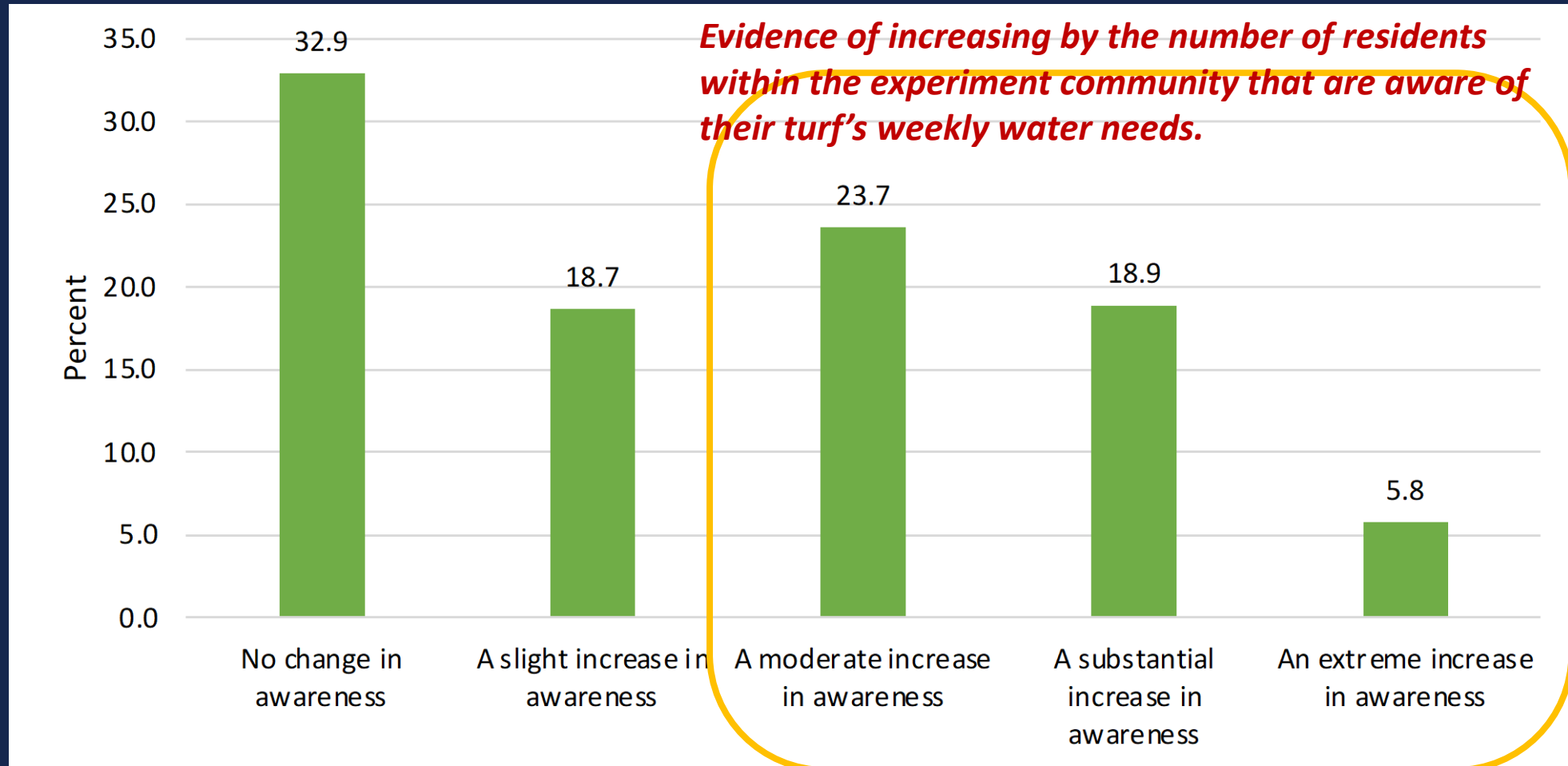
FREQUENCY USING DIFFERENT LANDSCAPE IRRIGATION AND WATER USE INFORMATION SOURCES



SELF-REPORTED KNOWLEDGE TO DETERMINE IRRIGATION NEEDS BASED ON RECENT LOCAL RAINFALL

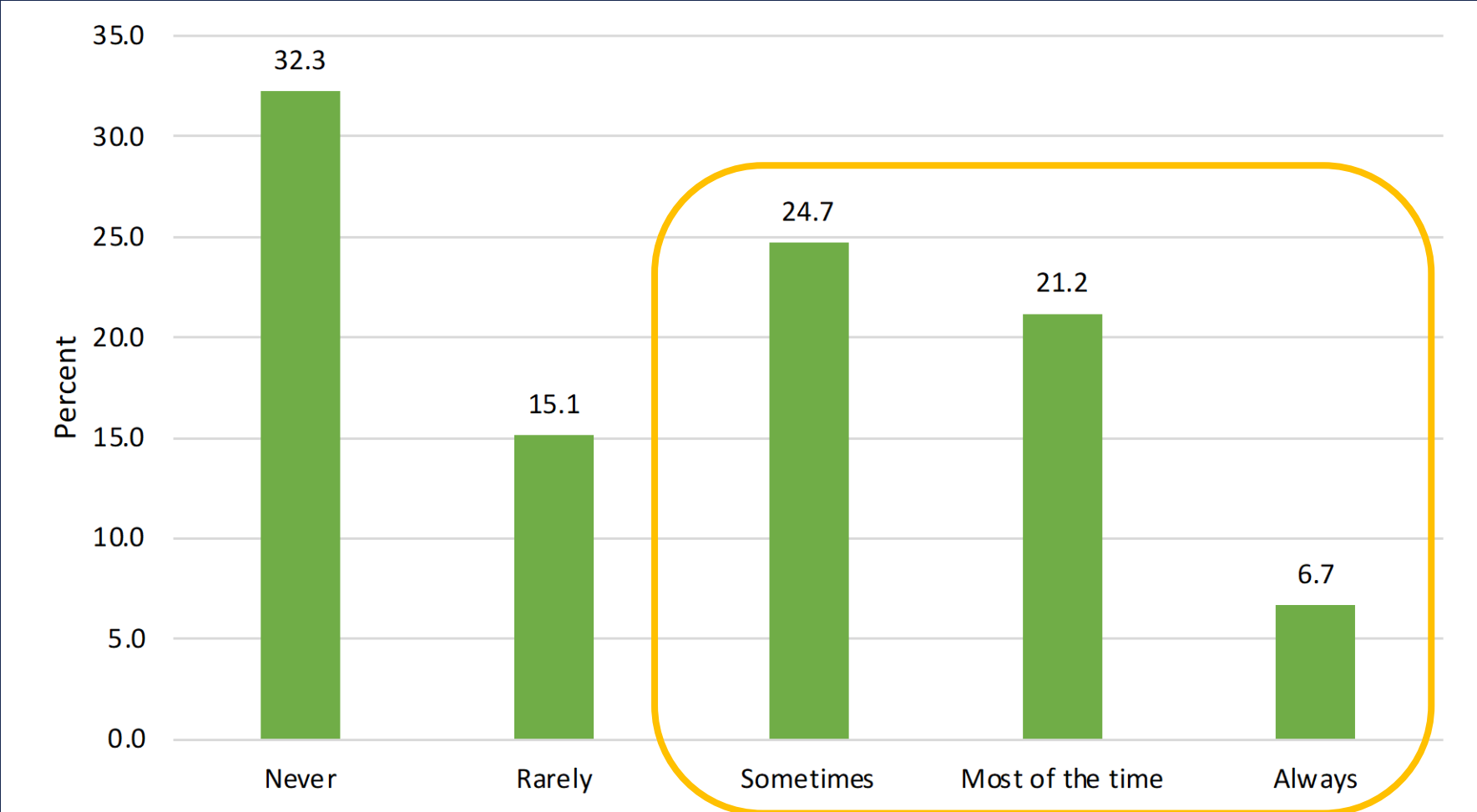


FINDINGS – CHANGE IN AWARENESS OF LAWN’S WATER NEEDS



FINDINGS – FREQUENCY IN USING SIGN TO MAKE DECISIONS

Over the course of the past year, how frequently do you think you used the seven-day average rainfall value on the Hunter's Green entrance sign to make decisions about your irrigation practices?



INSIGHTS & CONCLUSIONS

- Little change in water usage over the period:
- The sign may have conveyed the lack of precipitation and prompted no change in irrigation during drier times.
- Despite no major indications of behavior change or water usage reduction, residents reported their awareness of their lawns' water needs has increased and they more frequently considered rainfall.
- Awareness + positive perceptions among residents (stable across a dry year) point to community's readiness for more engagement in conservation.
- Actively engage community to build residents' sense of ownership/inclusion using participatory facilitation to gather needs and ideas
 - Peer-to-peer demonstration
 - Working with community leadership and contractors
 - Increasing residents' perceived control over their irrigation
- Explore using signage during only the rainy season (could have opposite impact during the dry months)
- Explore additional or alternative mediums to share rainfall data (e.g., social media, text messages, etc.) using daily totals or daily updated 7-day total



THANK YOU



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