

# The Effect of Plant Composition on Water Use



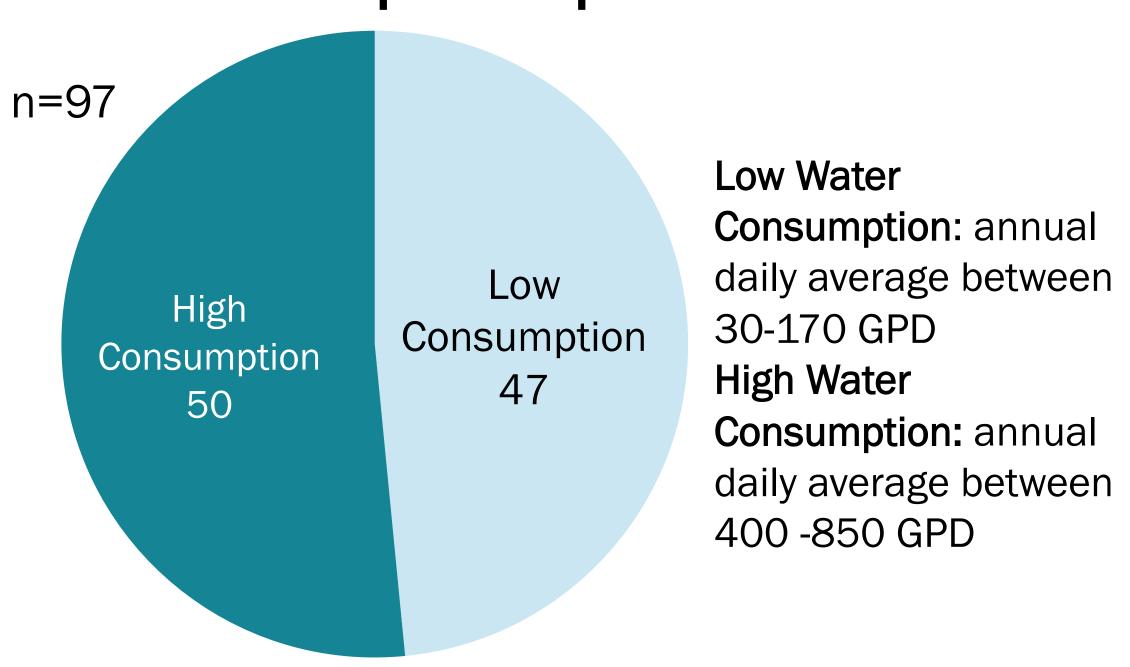
Jessica Hoffmann [DCDC Internship for Science-Practice Integration] Darren Sversvold [City Supervisor] Elizabeth Wentz [Faculty Mentor]



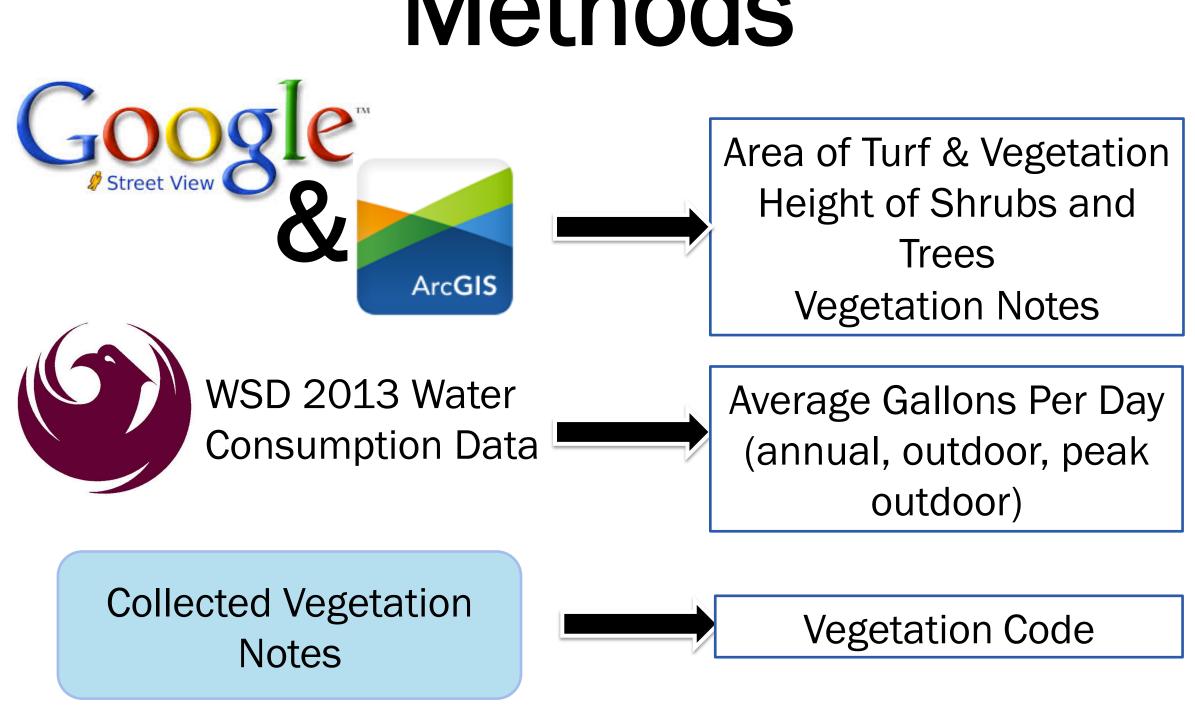
This poster examines plant compositions impacts on water use in residential landscapes using a sample of parcels classified as "moderate" by the City of Phoenix Water Services Department (WSD). A moderate landscape has less than 35% of the total parcel covered with turf, a mix of native and tropical plants and numerous trees. WSD considers moderate landscapes to be the 3<sup>rd</sup> most water intensive type of landscape, ahead of sparse and arid but behind extensive and turf.



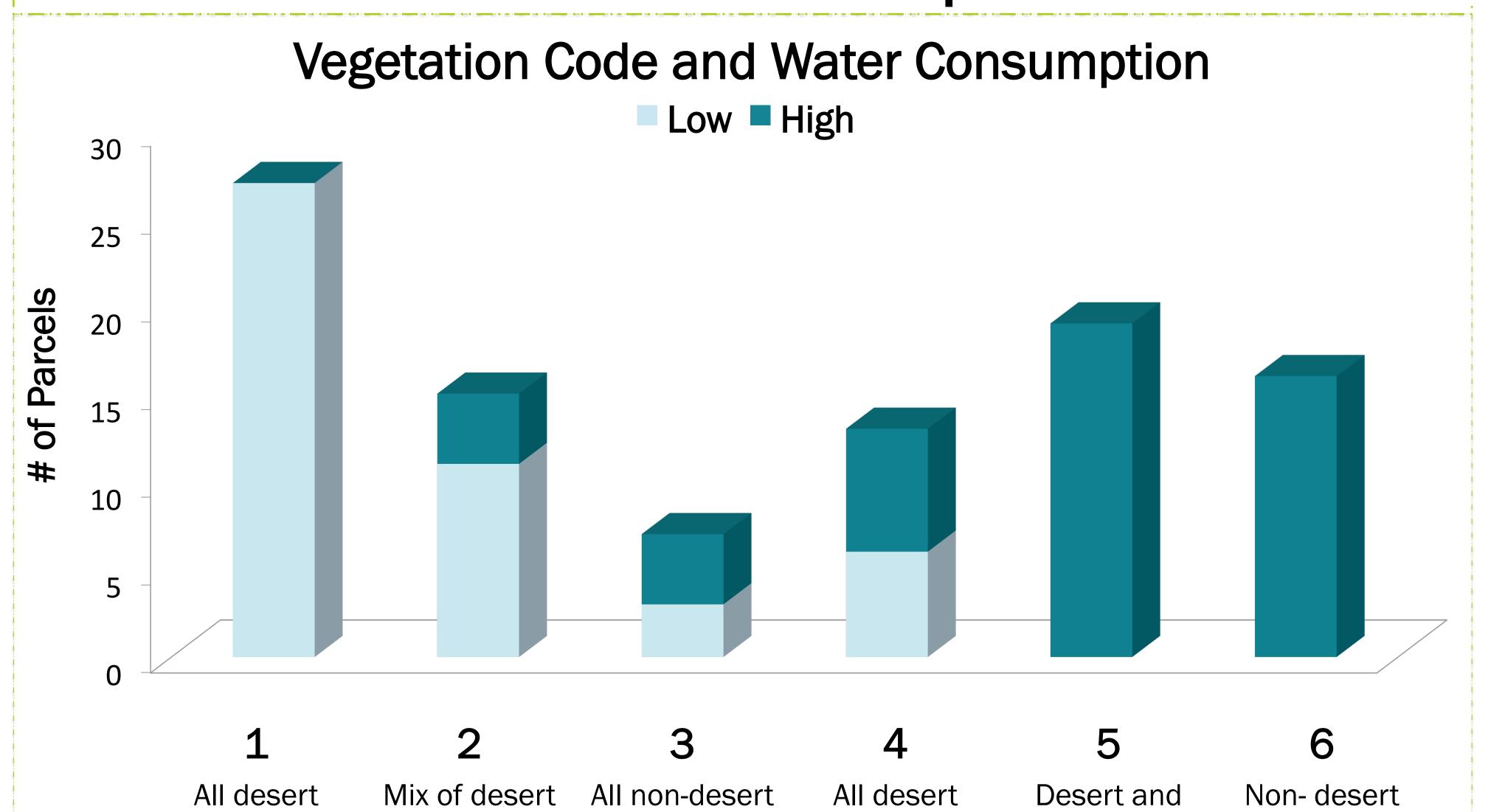
#### Sample Population



### Methods



## How does plant composition affect water use in moderate landscapes?



# Median Consumption

adapted

vegetation

adapted

vegetation

with turf

adapted

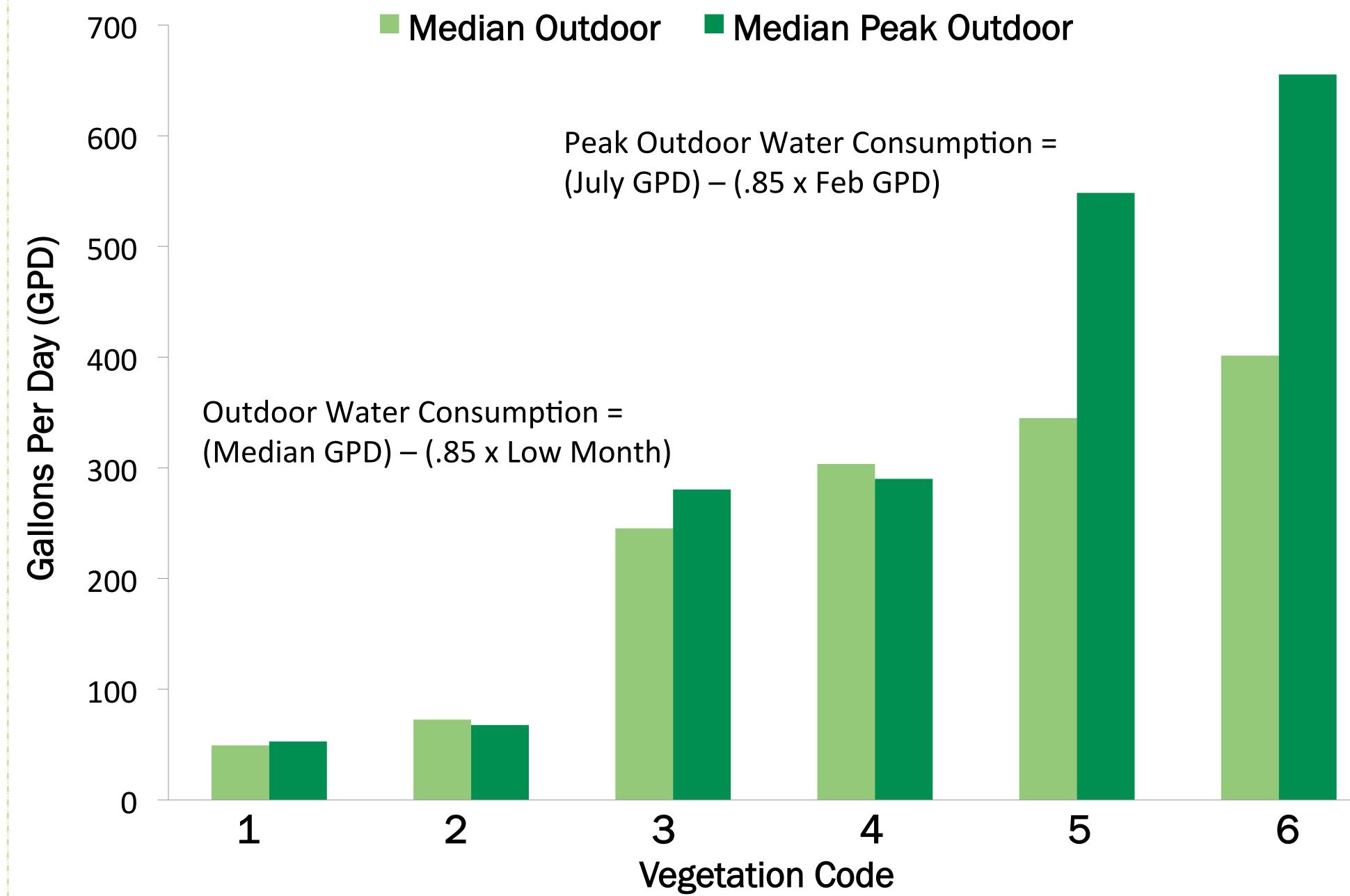
vegetation

and non-

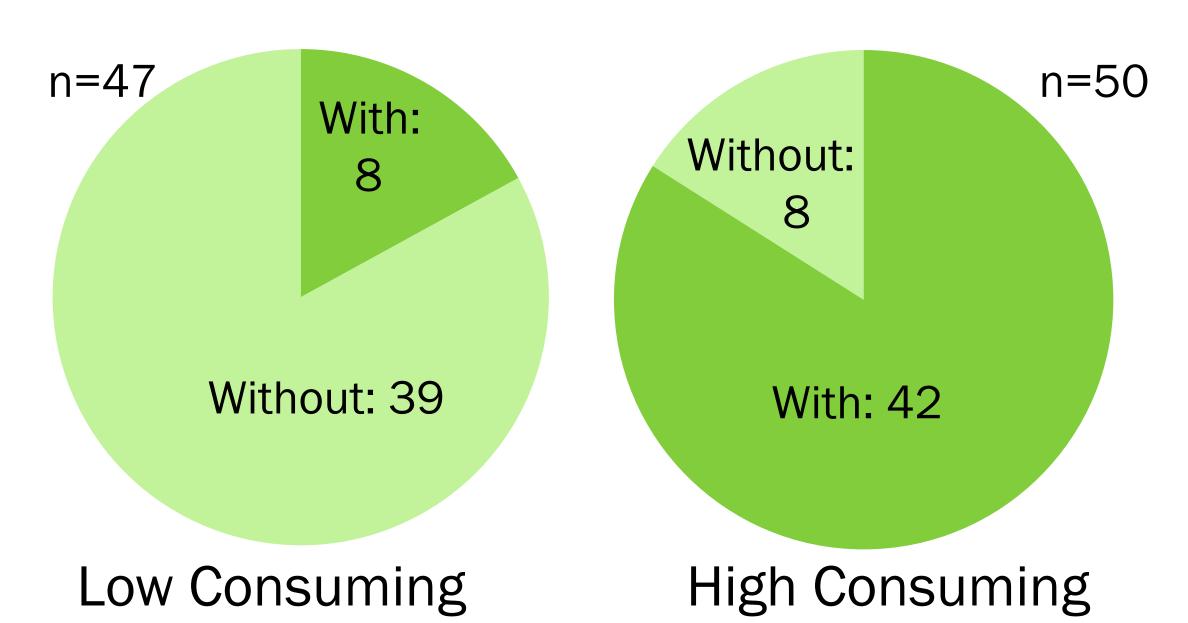
desert

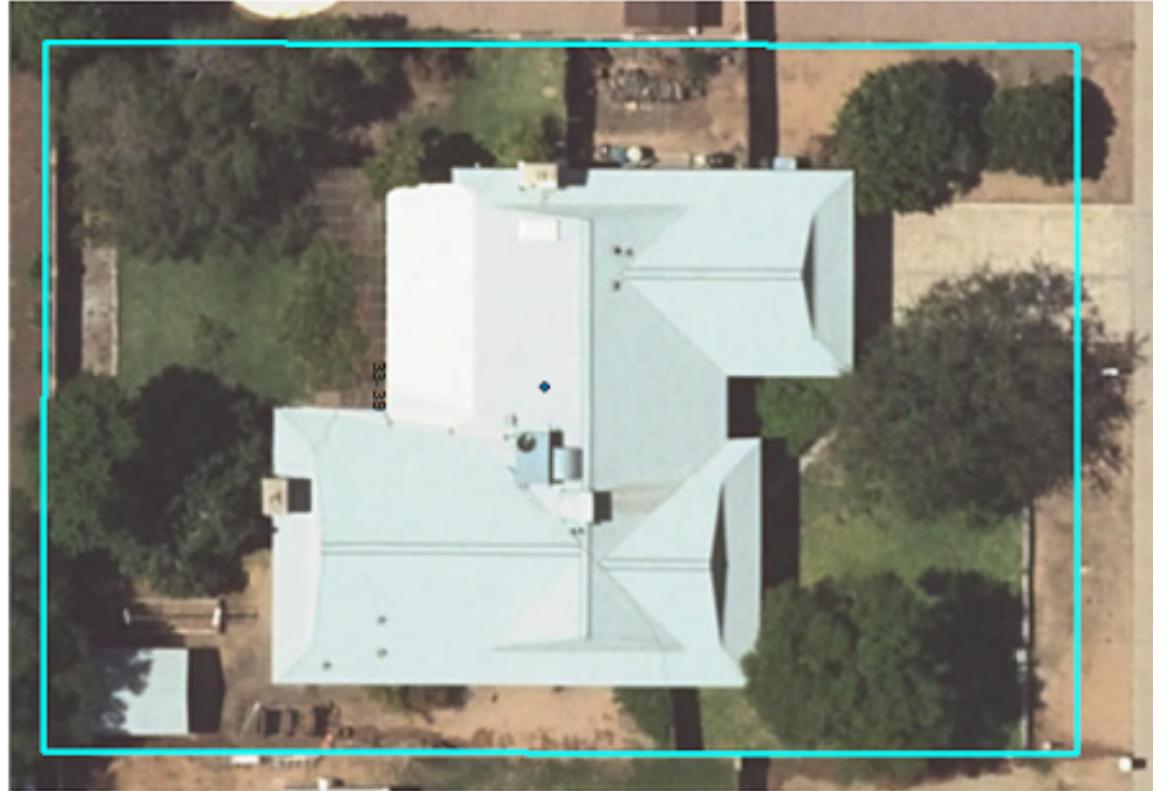
adapted

vegetation



#### Presence of Turf





# Significant Findings

- ► Moderate landscapes have a wide variety of plant compositions as well as water consumption.
- ► Desert adapted vegetation in moderate landscapes correlates to lower outdoor water consumption.
- ► Average outdoor GPD increases with use of non-desert vegetation.
- ► As shown by other research the presence of turf correlates to increase outdoor water consumption.
- ► Preliminary research indicates that WSD should continue to investigate the plant compositions in moderate landscapes and consider dividing it into two or more new categories.

#### Acknowledgements

adapted

vegetation

with turf

non- desert

adapted

vegetation

with turf

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