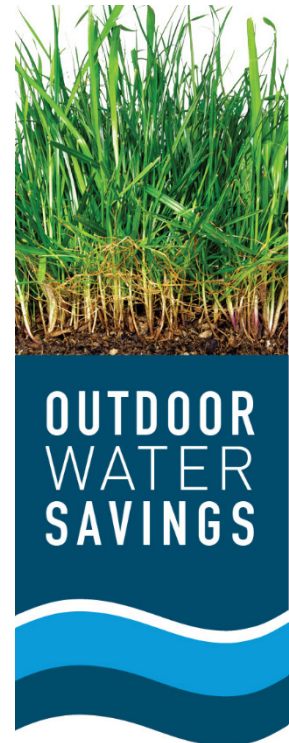


# SCOPE OF WORK

## AWE OUTDOOR WATER SAVINGS RESEARCH INITIATIVE

Phase 2



Reducing the Requirement – Landscape Transformation Reasons,  
Rationale, and Water Savings

*August 1, 2015*

### Overview

An effective way of reducing outdoor water use is to change the landscape itself, removing plants and grasses that have a high water requirement and replacing them with plants, grasses, and ground covers that have require less water. What motivates people to make landscape and irrigation system changes that impact water use? Landscapes are complex systems and simply removing turf is often not enough by itself as irrigation systems and schedules must be changed as well to achieve water use reductions. This project will explore the reasons and rationale as well as the water demand impact of landscape changes and will identify the key components necessary to motivate and achieve reliable, persistent, and substantial water savings.

### Research Questions

This research project hopes to shed light on the following questions:

- 1) What motivates people to make changes to their landscape and irrigation systems?
- 2) What range of water savings (gallons reduced annually per impacted customer and per SF of landscape) can be expected from reducing landscape water requirements?
- 3) What encourages people to change their landscape and irrigation practices to reduce the overall water requirement and usage?
- 4) What factors influence the volume of water savings achieved from reducing irrigation requirements?
- 5) How can water savings be maximized?

### Scope of Work

#### Goals

The goal of this project is to conduct new empirical research on landscape transformation projects such as turf removal and replacement, “cash for grass”, Xeriscape and water wise re-landscaping, and utility sponsored efforts to promote and incentivize reductions in the landscape water requirement. The research will focus on what motivates landscape and irrigation changes and what changes in water use can be expected.

## Research Approach

The specific research approach and locations should be developed by the applicant research team.

Research methods should include:

- Analysis of landscape changes – Careful documentation of what landscape and irrigation system was there before and what it was replaced with.
- Analysis of theoretical landscape requirements – how much water did the original landscape require and how much water should the new landscape need.
- Analysis of reasons and rationale for landscape changes – Customer surveys and interviews to improve understanding of the motivating factors for landscape transformation.
- Analysis of changes in water use on a per customer and per SF of landscape basis. Should include a pre- post-analysis using utility billing data carefully aligned with the dates when the landscape changes were implemented.
- Comparison with control sites and groups that did not make substantial landscape changes during the same period of time.
- Necessary adjustments for temperature and precipitation variations.
- Analysis of motivating factors and water savings – does the rationale for landscape transformation impact water use?

The research team should propose to work with at least three separate water utilities that have conducted landscape transformation program efforts. Ideally these utilities should be located in different parts of the US and/or Canada.

## Deliverables

The key deliverables for this project are:

- Final report describing research methods and findings (to be published by AWE).
- Research database including water demand data and landscape information.
- Recommendations for ongoing and future research based on the findings.

## Proposal Requirements

The following elements should be included in the body of the proposal which is limited to 15 pages:

- Executive summary
- Description of project team and qualifications (2 pages max.)
- Scope of work including research methods and study site locations
- Schedule (not to exceed 24 months)
- Proposed budget including clear delineation of the team members and anticipated hours assigned to each project task and hourly rates for each team member.

The following elements should be included with the proposal, but are not subject to the 15 page limit:

- Description of up to three similar projects completed by research team members (one page per project max).
- Statement of qualifications
- Resumes
- References

### Estimated Required Project Budget

AWE has estimated that it will take \$175,000 - \$250,000 to successfully complete this project.

### Estimated Project Period

18 – 24 months.