

# Encouraging Landscape Water Conservation Behaviors Series Overview #7: Personal and Social Norms of Florida Residents Who Use Irrigation in the Home Landscape<sup>1</sup>

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## Introduction

This is the seventh publication in a series focusing on encouraging water conservation among Florida residents who use irrigation in their home landscapes. This publication examines personal and social norms of Florida residents who use irrigation in the home landscape and describes how these characteristics can be used to encourage water conservation practices. Extension educators are encouraged to tailor programs that will encourage good irrigation practices and water conservation activities based on personal and social normative beliefs.

## Norms

Norms, or normative beliefs, can be defined as perceptions of specific behaviors which are approved of by people around us or that we feel personally obligated to engage in (Ajzen 1991). Norms are actually the beliefs about how people around us view what we are doing and whether they approve or disapprove the behaviors we are following (Ajzen 1991; Kumar Chaudhary & Warner 2015; Sanagorski & Monaghan 2014). An example of normative beliefs is when individuals believe *it is good to conserve water as much as possible during irrigation or conservation of water*

*is a good practice*, (Kumar Chaudhary & Warner 2015; Sanagorski & Monaghan 2014).

Norms can be further classified into social and personal norms. *Social norms* are defined as whether the behaviors we are following are approved of or disapproved of by people important to us (Ajzen 1991). For example, when media promotes the application of excess chemicals to maintain perfect lawns, then residents may assume others approve of the application of extra chemicals on their lawns (Clayton 2007) and they make this assumption because of social norms. Another example is the hiring of professionals to apply chemicals to the lawn because residents have observed or heard of their neighbors engaging in this practice (Blaine, Clayton, Robbins, & Grewal 2012).

*Personal norms* are defined as the personal obligation a person feels to engage in a specific behavior. An example of personal norms is the responsibility felt internally by a resident to save resources by using water cautiously indoors and outdoors. Another example is the application of few or no chemicals by a resident to their landscape because he or she realizes that if he or she pollutes the groundwater, then he or she is personally responsible for the reduced

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availability of clean water for future generations. Norms have been successfully utilized to reduce drinking among college students (Haines & Barker 2003), reduce smoking (Linkenbach & Perkins 2003A), and promote energy conservation (Schultz et al. 2007).

## Application of Norms

Norms are an important tool Extension educators can use to encourage behavior change among their target audiences. Perceived norms may be weak for certain conservation behaviors such as water conservation, as it may be hard to determine what the norms surrounding water conservation behavior are. Extension educators need to understand their target audiences' perceptions before they use norms to change behavior (Kumar Chaudhary & Warner 2015; Sanagorski & Monaghan, 2014). An understanding of social norms can guide Extension educators in identifying what behaviors their target audiences perceive are the norm. For example, if an Extension educator's target audience regularly observes their neighbors watering the lawn while it is raining, then these audiences assume that watering the lawns while it is raining is acceptable in their neighborhood (social norm). Extension educators can concentrate their time and resources in correcting the negative norm (watering the lawn while it is raining) and encouraging water conservation among their target audiences.

## Survey Analyzing Water Conservation Perceptions of Florida Residents

A team of University of Florida faculty and staff conducted a public opinion survey to understand the water conservation behavior of Florida residents. In this publication, we will discuss the findings from the social and personal norms section of the survey. For a detailed description of the survey, please refer to *Encouraging Landscape Water Conservation Behaviors Series Overview #1: Tailoring Programs to Florida Residents Who Use Irrigation in the Home Landscape* (<http://edis.ifas.ufl.edu/wc199>). Personal norms were measured using five statements (Figure 1). For the five personal norm statements, more than 80% of respondents indicated they either *agree* or *strongly agree* that it is their personal obligation or responsibility to conserve water (Figure 1). The results exhibit that most of the respondents have relatively strong personal norms and that they perceive themselves as having a personal obligation to engage in landscape water conservation.

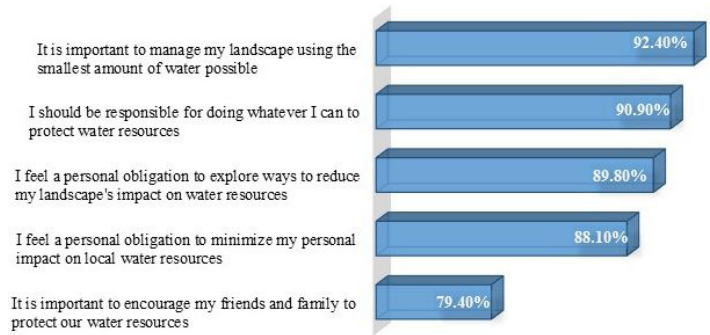


Figure 1. Personal norms of respondents (N=1063) measured on a five point likert-type scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*). Note: Percentages on bars represent combined percentage score of *Agree* and *Strongly Agree* responses.

Social norms also were measured using five statements (Figure 2). The results were similar for the top three statements: nearly 80% of respondents either agreed or strongly agreed that the people important to them approve of and expect their water-conservation behavior. However, respondents agreed substantially less (54% and 64%) with two statements about what others expected them to do. These results demonstrated that even though people feel strong personal obligations or responsibilities to conserve water, they do not perceive as strongly that their peers expect them to engage in water conservation behaviors.

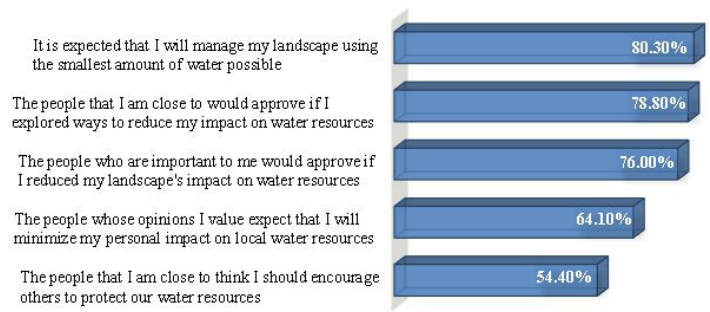


Figure 2. Social norms of respondents (N = 1063) measured on a five point likert-type scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*). Note: Percentages on bars represent combined percentage score of *Agree* and *Strongly Agree* responses.

## Conclusions

Most Florida residents who use landscape irrigation feel strong personal obligations or responsibility to engage in water conservation practices. However, social norms are not perceived as strongly as personal norms are. These results provide an important finding for Extension educators. Residents strongly approve of water-conservation behaviors but perceive fewer expectations among the people around them. This is an opportunity for Extension educators to intervene and work on strengthening social norms around water conservation.

When developing programs, Extension educators should consider their target audience's personal and social norms for water-conservation behaviors because norms can guide water-conservation behavior. Personal and social norms are important tools that Extension educators can incorporate into their programs. As with many environmentally responsible actions (Kumar Chaudhary & Warner 2015), low visibility or unawareness about norms surrounding certain behaviors such as water conservation can explain the weak social norms found in this research.

An understanding of a target audience's perceptions of water conservation should be incorporated into program planning to promote water-conservation behaviors. For example, the majority of this Extension audience feels a personal obligation to conserve water (personal norms), so educational materials that emphasize what the audience members' peers are doing to conserve water through good irrigation practices should be developed. As more audience members become aware that these good irrigation practices are the norm, engagement in landscape water conservation practices and technologies can be readily promoted.

Because Extension target audience members are likely to follow their neighbors' water-conservation behaviors (social norm), Extension educators can promote a new social norm by publicizing underperceived water conservation behaviors. The social norms regarding water conservation can be established by cooperation with members of local organizations, such as homeowners' associations (HOAs). Extension educators should consider using respected members of a social system, such as a neighborhood, to promote a behavior. For example, a resident who is using soil moisture sensors to save irrigation water may be asked to conduct a demonstration and share his or her water use savings data. If Extension educators are able to work with local community members, then conservation of water can be easily promoted within the community, and landscape water conservation will become the social norm.

This research utilized a purposive sample (Gouldthorpe & Israel 2013) of Florida residents who irrigate their home landscapes for data collection, and due to specificity of sample, generalizability of the findings to general Floridians is restricted.

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## Appendix: Encouraging Landscape Water Conservation Behaviors Series Overview

The *Encouraging Landscape Water Conservation Behaviors* series was developed to address promoting adopting water-saving practices and technologies to a specific target audience, Florida residents who use irrigation in their home landscapes. These EDIS publications provide information to help Florida Extension professionals to understand this target audience and guide more effective programming.

**#1: Tailoring Programs to Florida Residents Who Use Irrigation in the Home Landscape (WC199 <http://edis.ifas.ufl.edu/wc199>):** This publication describes commonalities among this target audience and describes Florida residents who use irrigation in the home landscape. By understanding characteristics of this audience, Extension professionals can develop more effective and targeted programming for this audience.

**#2: Applying Audience Segmentation to Water Conservation Activities in the Landscape—Defining Segments of the Florida Homeowner Audience and Implications for Extension Programming (WC200 <http://edis.ifas.ufl.edu/wc200>):** This publication describes how segmentation can be applied to increase the effectiveness of Extension programming and defines specific segments of this target audience.

**#3: Developing Extension and Outreach Messages that Encourage Adoption of Landscape Water Conservation Practice (WC201 <http://edis.ifas.ufl.edu/wc201>):** This publication defines message framing, gain and loss framed messages, and value frames. Extension educators are encouraged to incorporate framed messages into their programming.

**#4: Florida Homeowners' Reactions to Messages that Encourage Landscape Water Conservation Practice Adoption (WC202 <http://edis.ifas.ufl.edu/wc202>):** This publication examines attitudes and perceived behavioral control over good irrigation practices among Florida residents who use irrigation in the home landscape. The impact of different messages that Extension educators may use to encourage water conservation is presented.

**#5: Segmenting the Audience Based on HOA Status (WC203 <http://edis.ifas.ufl.edu/wc203>):** This publication

segments Florida residents who irrigate by HOA status. Commonalities and differences among those who belong to a HOA and those who do not belong to a HOA are explored. Extension educators can use this information to understand how HOA status impacts water conservation practices.

**#6: Information-Seeking Preferences of Florida Residents Who Use Irrigation in the Home Landscape (WC204 <http://edis.ifas.ufl.edu/wc204>):** This publication examines information-seeking preferences of Florida residents who use irrigation in the home landscape. Extension educators can use this publication to understand how residents seek information and the type of water conservation information that residents would like to learn about.

**#7: Personal and Social Norms of Florida Residents Who Use Irrigation in the Home Landscape (WC205 <http://edis.ifas.ufl.edu/wc205>):** This publication examines personal and social norms of Florida residents who use irrigation in the home landscape and describes how these characteristics can impact water conservation practices. Extension educators are encouraged to tailor programs that will encourage good irrigation practices and water conservation activities based on personal and social beliefs.