

Extension and the Environment: Understanding Florida Residents' Perceptions of Environmental Water-Related Topics¹

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Introduction

This publication explores Florida residents' perceptions of a variety of water topics related to environmental issues and their perceived level of importance of each. This resource was developed to help Extension faculty understand Florida residents' perceptions of water quality and quantity issues so they can better educate this audience and communicate with them about these issues. Additionally, Extension faculty will be able to understand the level of importance the public associates with water issues.

Water in Florida

Water is one of Florida's most abundant and important natural resources. Not only does water impact some of Florida's major economic industries, such as tourism, agriculture, and retail, but it also impacts the environment (Odera et al., 2013). Florida is home to over 1,300 miles of coastline (Department of State, 2022) and Everglades National Park, which spans 1.5 million acres and is the largest subtropical wilderness in the United States (National Park Service, 2014).

In addition to its natural resources and natural areas, Florida is among the most populated states in the country. Florida's population, currently exceeding 21 million people, is growing at a rate much greater than the rest of the United States (US Census Bureau, 2021a, 2021b). An explosion in population growth is tied to rising demand for water, leading to complex issues regarding the protection and regulation of water in Florida. Water quality regulations from the Environmental Protection Agency (EPA) have fueled an ongoing debate between environmental and agricultural interest groups. Different interest groups need to understand the water concerns of Florida residents to avoid future water conflicts and should work together to find sustainable solutions (Odera et al., 2013).

Enhancing and protecting water quality, quantity, and supply is considered a high-priority initiative in UF/IFAS

Extension's 2013–2023 Florida Extension Roadmap (UF/IFAS Extension, 2013). Floridians agree with this priority—in a 2016 survey, state residents ranked water above other issues including taxes and education (PIE Center, 2017). The role Extension faculty play in encouraging water conservation and educating clientele about water-related topics is vital to the success of this initiative and in ensuring water for Florida's future.

Background

The information shared here is drawn from a 2015 online survey conducted by the UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center). A total of 749 Florida residents 18 years and older provided completed responses (Odera & Lamm, 2015). Data were weighted to balance geographic location and to ensure that respondents were representative of the 2010 US Census (Kalton & Flores-Cervantes, 2003; Odera & Lamm, 2015).

Included in the survey were questions about what Florida residents consider the most important clean water sources, the most important plentiful water sources and Florida residents' perceptions of water quality, and Florida residents' experiences with negative environmental impacts surrounding water. This is part of a larger study which focused on Florida residents' perceptions of and attitudes toward water quality and quantity issues in Florida.

Results

Importance of Clean and Plentiful Water

Respondents were asked to indicate how important they considered the presence of various clean water sources to be and the importance of having plentiful water for various purposes. Respondents indicated their level of importance as "not at all important," "slightly important," "fairly important," "highly important," or "extremely important."

When rating the importance of clean water sources, respondents placed the highest importance on the following by rating them as highly or extremely important:

- clean drinking water (97%)
- clean lakes, rivers, and springs (89%)
- clean beaches (89%)
- clean groundwater (88%)

When rating the importance of plentiful water for various sources, respondents placed the highest importance on the following by rating them as highly or extremely important:

- plentiful water for cities (90%)
- plentiful water in aquifers, springs, rivers, and lakes (88%)
- plentiful water for agriculture (84%)

Respondents did not find all plentiful water resources important, placing lower importance on the following with fewer responding that there were highly or extremely important:

- plentiful water for recreation (39%)
- plentiful water for golf courses (14%)

Experience with Water Resources

Respondents were asked about their personal experiences with water resources, including changes in water quality and if they had experienced any negative impacts due to poor water quality.

Respondents were asked whether they thought the quality of water resources was getting worse, was getting better, or had remained the same over time. A majority of respondents felt the quality of the following was getting worse:

- lakes (39%)
- coastal waters (37%)
- rivers (37%)
- bays (36%)
- groundwater (35%)

Respondents were also asked to indicate whether they had experienced any negative impacts due to poor water quality, such as closed springs, rivers, or beaches or poor drinking water quality. Respondents were most impacted by poor quality of the following:

- drinking water at home (23%)
- closed beaches due to red tide or poor water quality (22%)
- prohibitions on eating fish they had caught (16%)
- closed springs, rivers, or lakes due to algal blooms (12%)

Interest in Environmental Water-Related Topics

Respondents were asked to indicate their level of interest in water-related topics such as watershed restoration, fish and wildlife water needs, and forest management. Respondents could select as many topics as they had interest in from the list.

Respondents indicated moderate-to-low interest in water-related topics that pertained to the environment.

Respondents indicated the most interest in learning about the following topics:

- fish and wildlife water needs (31%)
- home and garden landscape ideas (30%)
- restoring fish and aquatic habitat (25%)
- water policy and economics (23%)
- community actions concerning water issues (21%)

Recommendations

Extension faculty work in every county in Florida and represent the state's land-grant universities, serving as opinion leaders within their communities. In some way or another, all Extension faculty are connected to the issue of water. Florida is home to over 25,000 miles of rivers (National Wild & Scenic River System, n.d.) and over 1,300 miles of coastline (Florida Department of State, 2022). As the demand for water continues to rise and recreational activities involving water grow in popularity, the role of Extension faculty in educating Florida residents on water-related topics will grow increasingly important. Extension faculty should increase programming focused on water issues in Florida and place particular emphasis on water issues in the environment, because this is what Floridians have shown the highest levels of interest in within this study.

Respondents indicated overall high levels of importance associated with clean water for various uses; clean drinking water was the use considered the most important by respondents. When discussing the importance of clean water with clientele, Extension faculty should emphasize that clean water is important for all uses in the future, not just for drinking. Florida residents should be informed of the importance of clean water not only for consumption, but also for recreation, agriculture, and the environment. There is also an opportunity to link water quality issues elsewhere (e.g., agriculture, etc.) with the consequences for drinking water, because these natural systems have direct connections with one another.

Extension faculty also can incorporate information about clean drinking water and plentiful water for cities in all fields. Because Florida residents indicated these issues as being the most important, including this information in programming will not communicate relevancy to new clientele but also continue to engage existing clients. When offering programming on outdoor water conservation,

Extension faculty could also mention the role that cities play in clean drinking water. By educating clients about the role that cities play in water quality, clients will be better informed about the importance of clean water in the environment.

An overall small percentage of respondents indicated experiencing negative impacts due to water quality issues. For example, nearly one in four Floridians reported experiencing poor drinking water at home. Even though it is a small percentage, this population should not be ignored because these experiences have made the issue personally relevant. Extension faculty should work with these clients to restore their confidence in Florida's environment and use their experiences to encourage them to serve as opinion leaders, spreading the word about water issues and work that can be done to alleviate problems. Extension faculty can also use the experiences of these individuals as examples when educating clientele about the possible negative consequences of lower water quality so that all will understand the possibility and reality of negative impacts.

Additionally, respondents indicated moderate levels of interest in water-related programming pertaining to the environment. Extension faculty should incorporate information about fish and wildlife water needs and home and garden landscape ideas into water-related programming on other topics. Extension faculty may be able to better reach clients by visiting natural locations such as state parks to educate visitors on ways they can contribute to fish and wildlife water needs. Programming could include ways they can contribute to the protection of natural resources. Extension faculty will be able to engage new clients and encourage clientele to conserve water when they incorporate information of interest to Florida residents. The data present here is comprised of highlights from a larger study; please visit [What Floridians Think about Water Quality and Quantity](#) for more information.

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