

# **The Future of Water in the Cape Fear River Basin**

*Internet Survey of Government Officials  
And Stakeholder Groups*

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Cape Fear River Assembly**

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## **PROJECT DESIGN AND RESPONDENT CHARACTERISTICS**

## Project Study Area

- The Cape Fear River Basin is the largest river basin in North Carolina, covering over 9,100 square miles in central and eastern North Carolina (about 17% of the total land area of the state.)
- The Cape Fear River Basin contains one-third of the state's population, and all or part of 25 counties.
- The Cape Fear River Basin is completely contained within North Carolina.
- The headwaters (Haw River and Deep River) start in the northern Piedmont region near Greensboro.
- The Haw River flows through Jordan Lake and then combines with the Deep River to form the Cape Fear River.



## Sample Design and Framework

- **County Government Agencies Selected from each of 25 counties.** Six were invited from departments, such as: NC Cooperative Extension Service, Soil and Water Conservation District, Public Works, Planning, Economic Development, Utilities, and/or Parks and Recreation (**n=150**)
- **Five City Government Agencies Selected from Ten largest cities in watershed (Raleigh, Greensboro, Durham, Fayetteville, Cary, Wilmington, High Point, Chapel Hill, Burlington, and Apex):** Five were invited from departments such as: Storm water, Planning, Economic Development, Sustainability, Recreation, and/or Public Works (**n=50**)
- **Professional Water Staff at the State** (e.g., DEQ, Soil and Water, Wildlife Resources) and **Federal** (USGS, Fish and Wildlife, Defense) levels (**n=60**)
- **Members of Three Sub-basin Monitoring Coalitions:** Lower (**n=21**), Middle (**n=15**), and Upper (**n=26**)
- **Environmental and Conservation Groups** with Locations in the Cape Fear River basin (**n=40**)
- **Economic Development and Chambers of Commerce** (**n=20**)
- **Other Sources:** Members of the Jordan Lake Partnership and Cape Fear River Partnership (**n=50**)

“Based on the list of counties below, in which of the following sub-basins do you currently live and/or work in?”

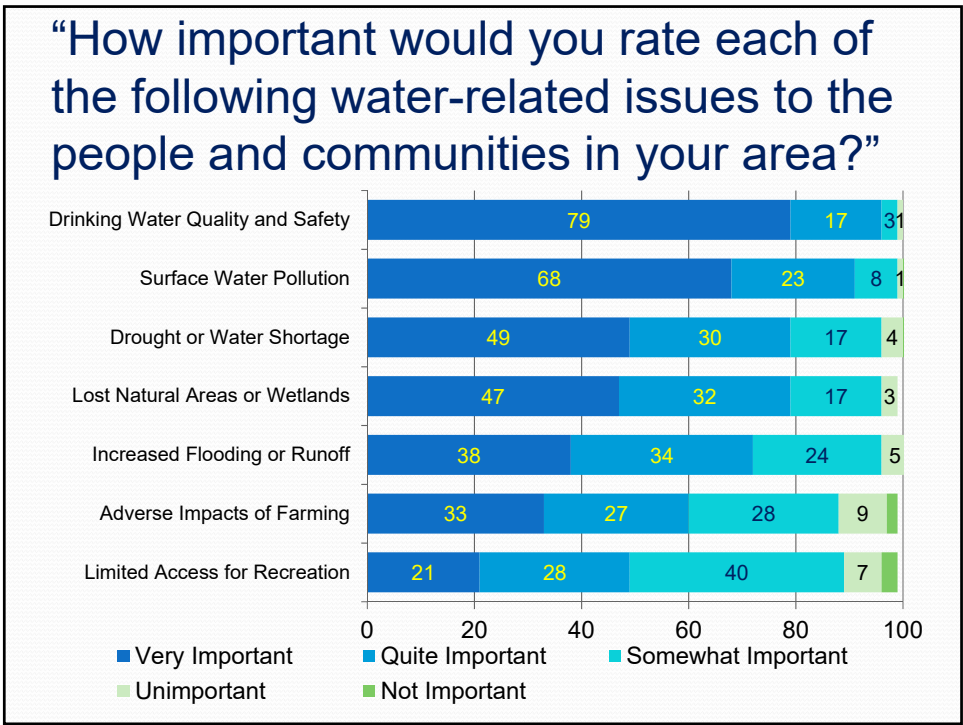
Cape Fear River Sub-Basin	Percent	Number
<b>Upper Cape Fear River sub-basin</b> (Alamance, Caswell, Chatham, Durham, Guilford, Orange, Randolph, Rockingham, and Wake Counties)	42%	83
<b>Middle Cape Fear River sub-basin</b> (Cumberland, Harnett, Hoke, Johnston, Lee, Moore, Sampson, and Wayne Counties)	30%	60
<b>Lower Cape Fear River sub-basin</b> (Bladen, Brunswick, Columbus, Duplin, New Hanover, Onslow, Pender, and Robeson Counties)	29%	59

*Just over 200 of the approximately 400 possible respondents identified completed the survey.*

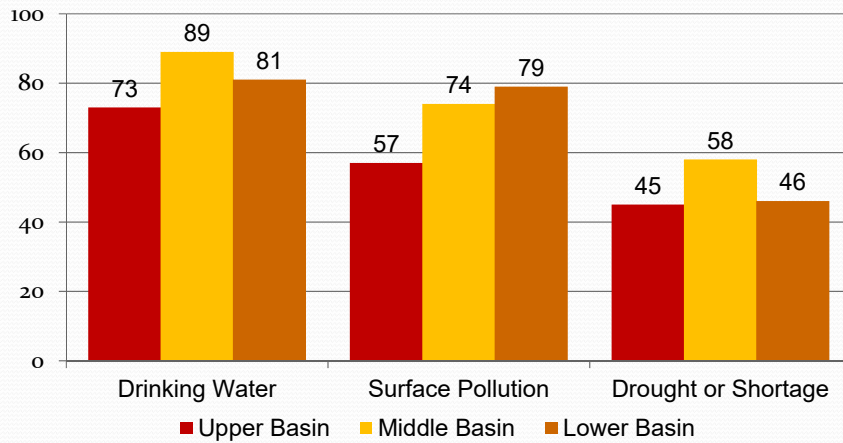
“Which of the following best describes the type of organization you work for?”

Type of Work Organization	Percent
Municipal or County Government	48%
State or Federal Government	15%
Environmental or Conservation Group	10%
Business or Industry	9%
Educational Institution	6%
Economic Development Organization	5%
Water or Wastewater Utility	3%
Other Organization	3%

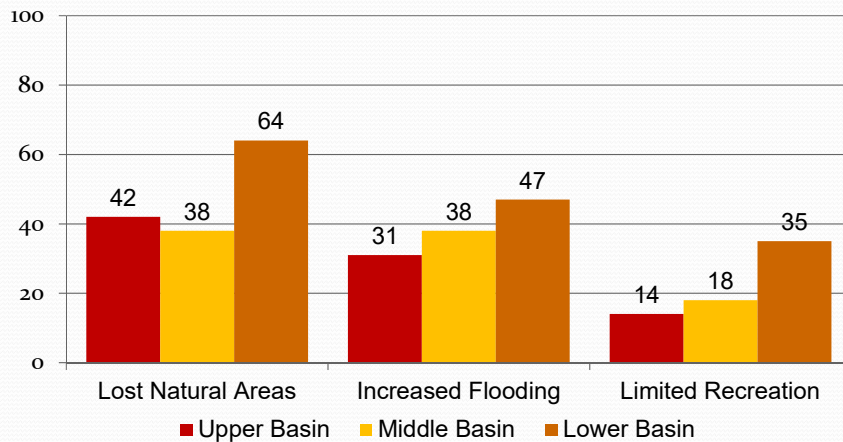
# PERCEPTIONS OF WATER RELATED ISSUES

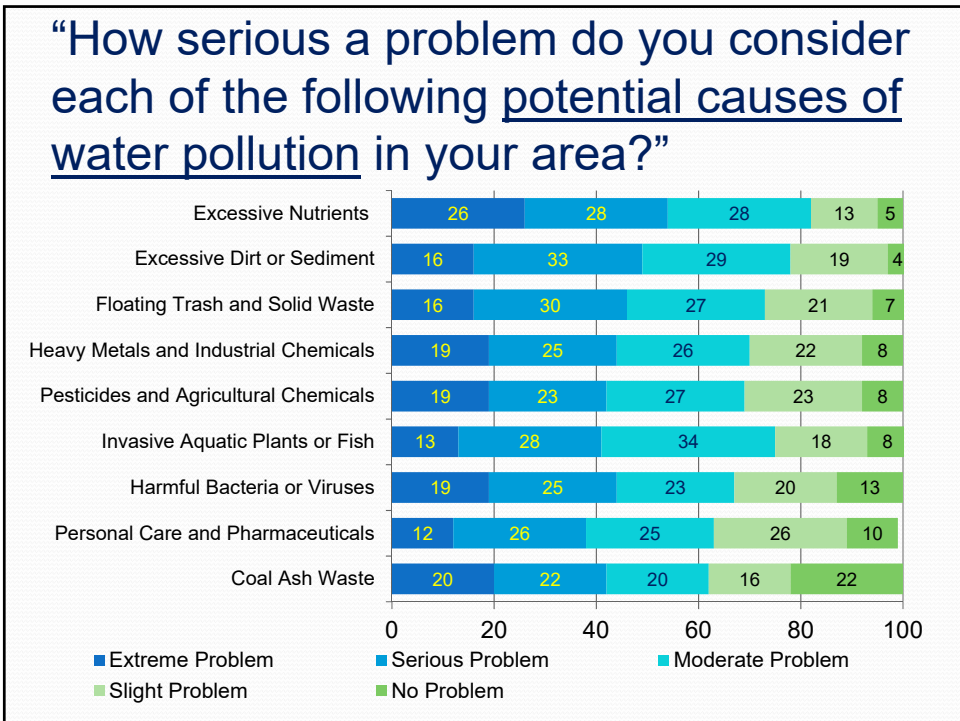
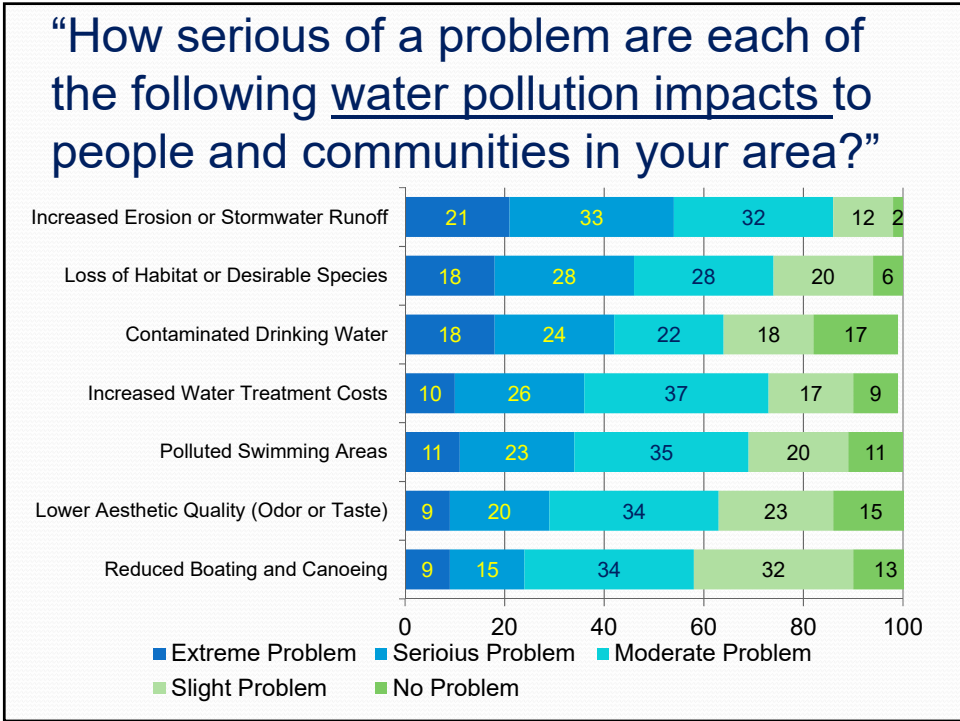


## Sub-basin Comparison of “Very Important” Water-Related Issues



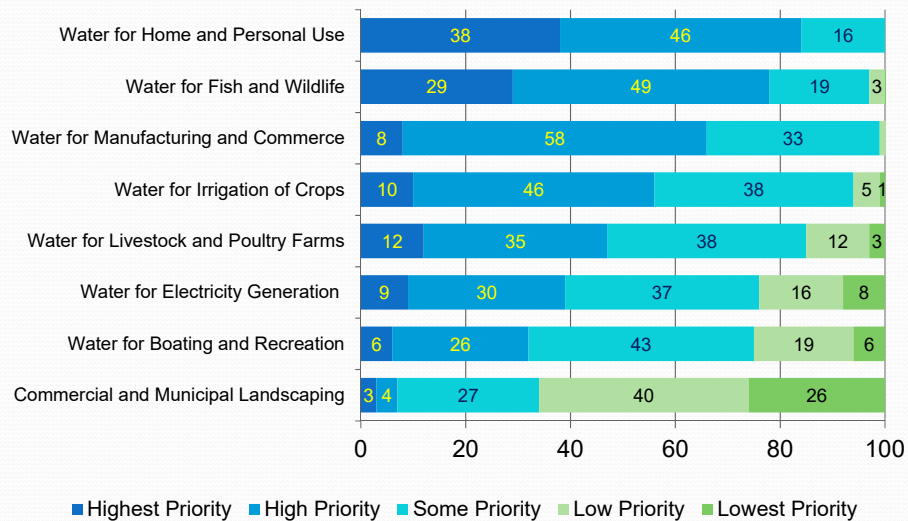
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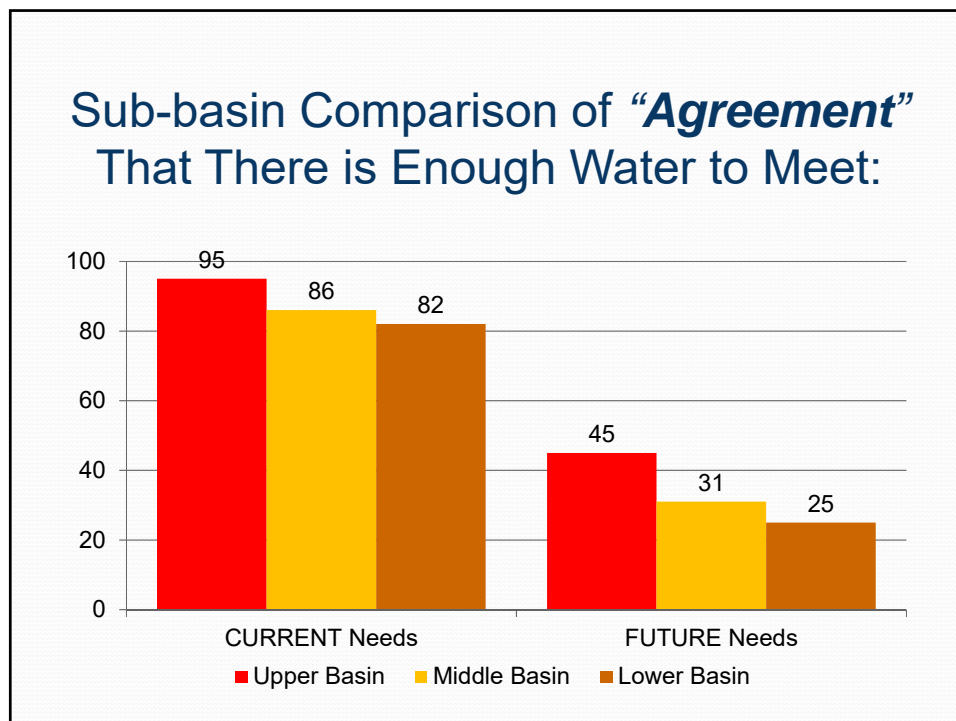
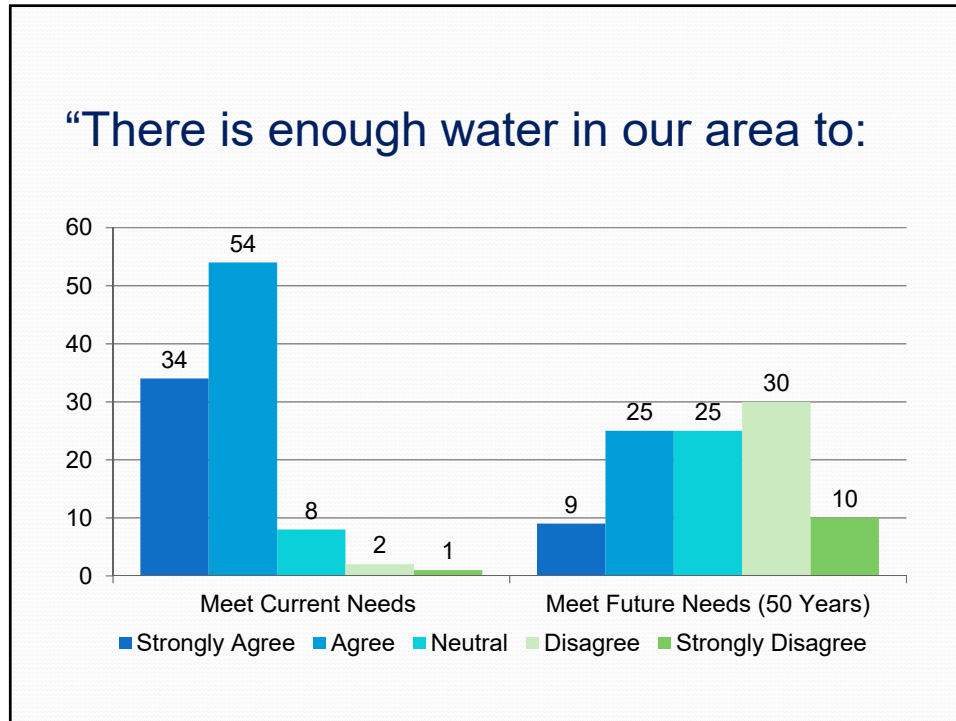




# PERCEPTIONS OF PUBLIC POLICIES AND THE FUTURE

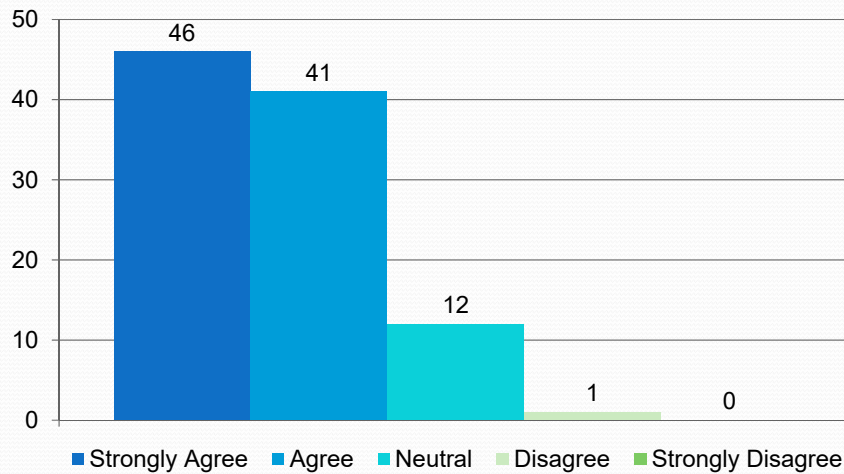
“As future water supplies become tighter or we experience another serious drought, how much priority should be given to each of the following uses of water in your area?”



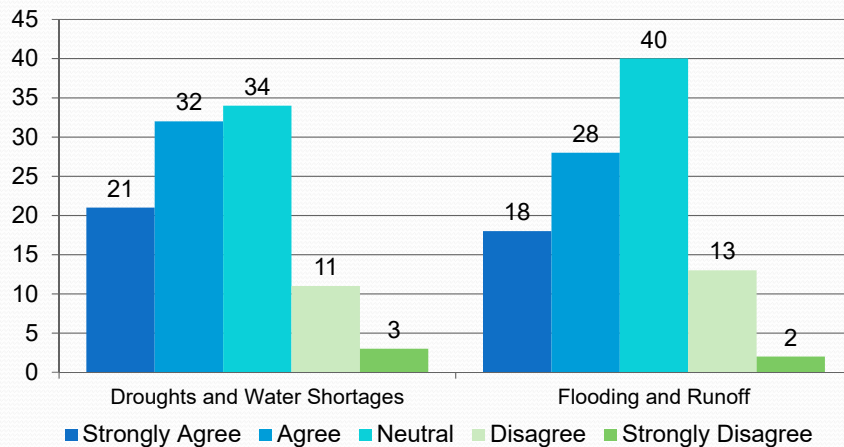


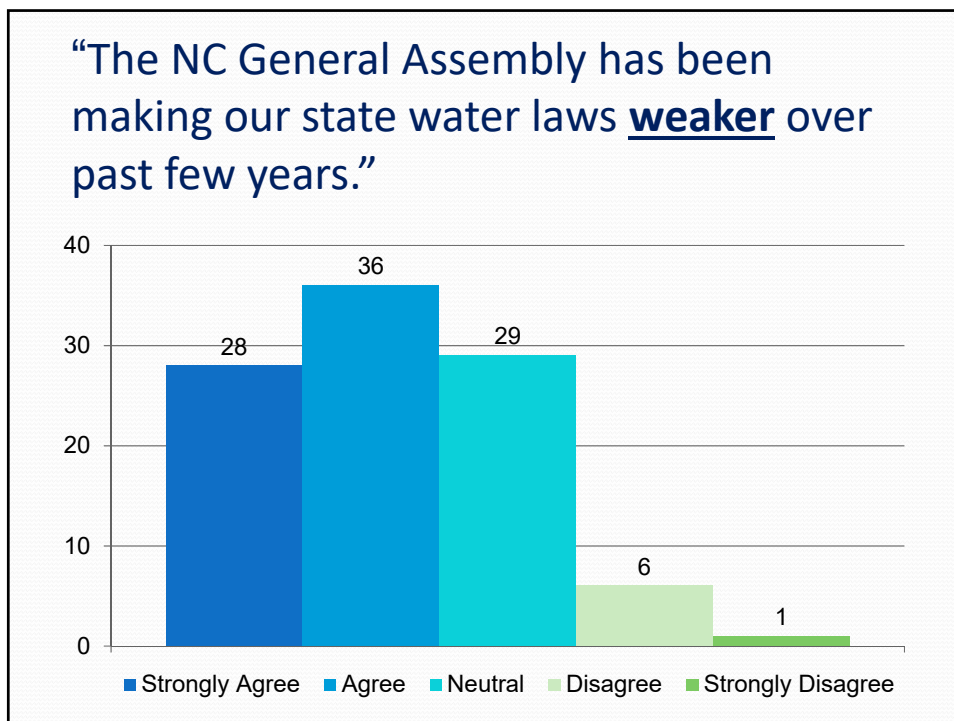
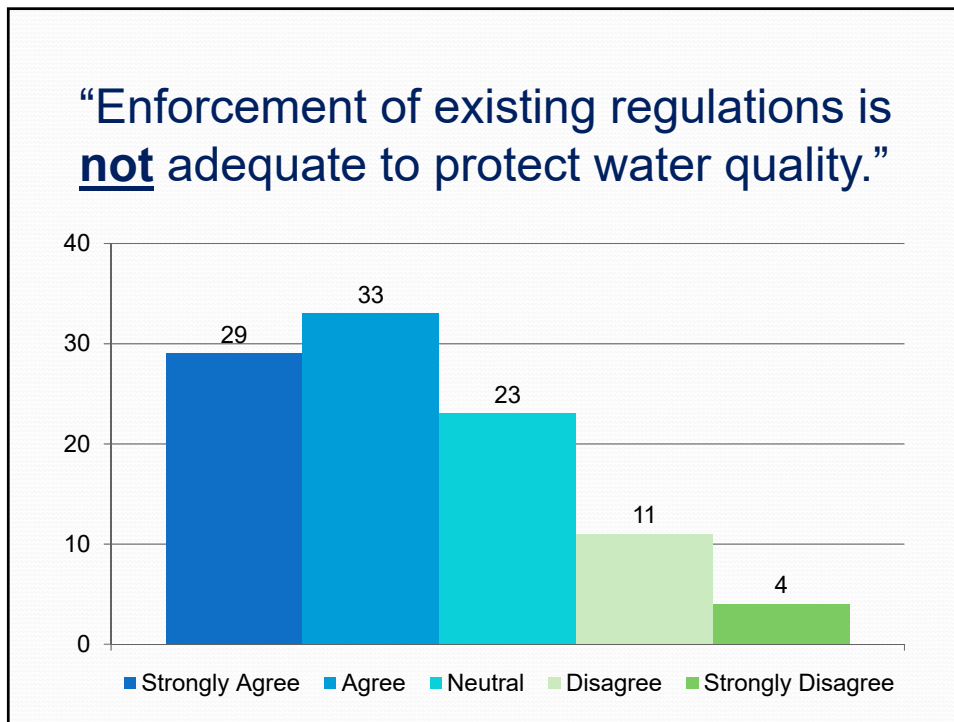


“Conflicts over water supply and availability will increase significantly over the next few decades.”

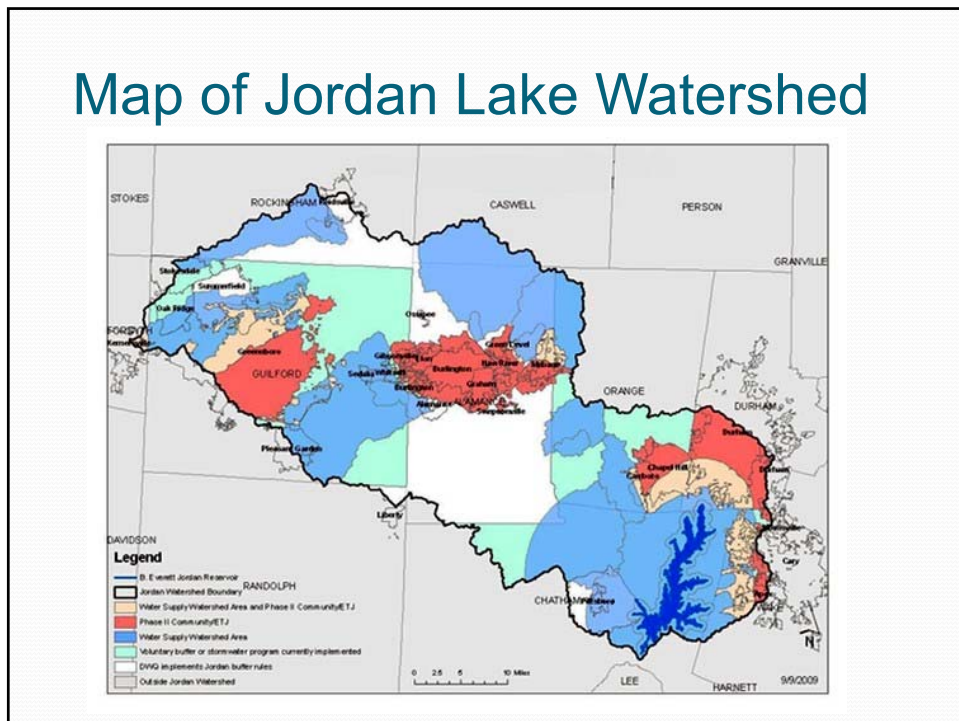


“Climate change over the next few decades will make \_\_\_\_\_ significantly worse in our area.”





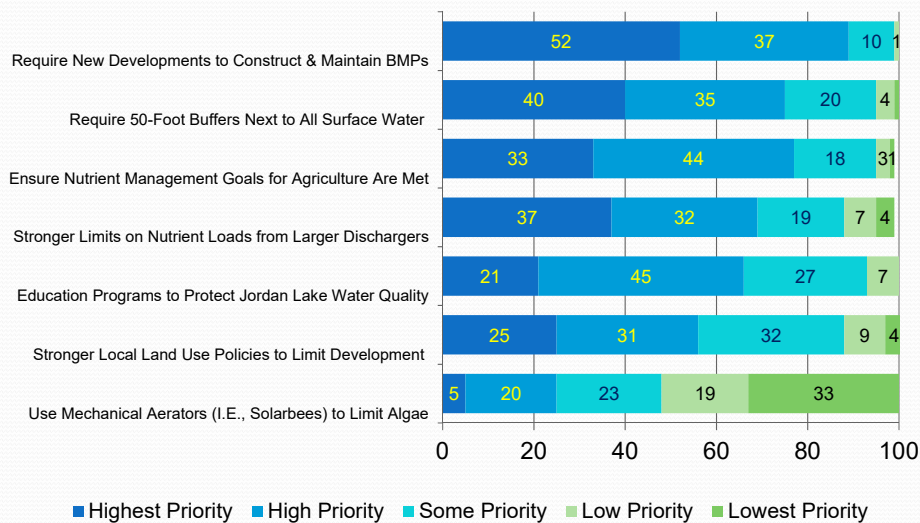
# PERCEPTIONS OF THE JORDAN LAKE RULES



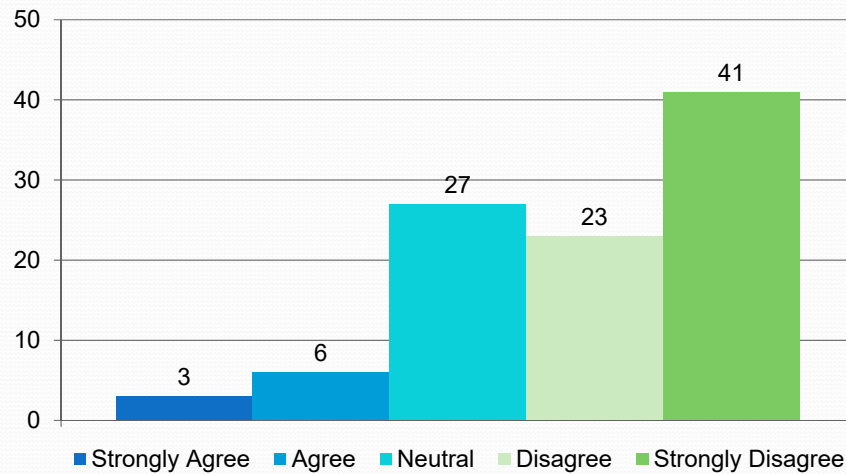
## Description of Jordan Lake

- Jordan Lake was impounded in 1983 by damming the Haw River just upstream of its confluence with the Deep River. An eight-county watershed drains into Jordan Lake.
- Jordan Lake is now the primary source of drinking water for nearly 300,000 people in Cary, Morrisville, and Apex, as well as parts of Chatham and Durham counties. More than 1 million people use the lake for swimming, boating and fishing each year.
- Since it was created in 1983, Jordan Lake's has been recognized as being "nutrient sensitive" which increases algal blooms.
- In response, the "Jordan Lake Rules" were adopted by the General Assembly in 2009.
- The Jordan Lake Rules are a nutrient management strategy designed to restore water quality in the lake by reducing the amount of pollution entering upstream from an array of sources.

### "How much of a priority should be given to each of the following in order to restore water quality in Jordan Lake?"



“The NC General Assembly delayed implementation of the Jordan Lake rules three times – most recently in 2013. How much do you agree or disagree with this delay in implementation?”



## DISCUSSION AND NEXT STEPS

## More Sub-Basin Analysis

- Ultimately hope to identify common ground among regions and point out significant differences.
- Respondents from lower sub-basin were generally:
  - *More concerned over pollution impacts and causes*
  - *More supportive of stronger government intervention*
- There are few significant differences in terms of
  - *How much different uses of water are valued.*
  - *What should be done to increase water supplies*
- Further analysis of results should help identify significant differences in responses based on type of employer and water-related responsibilities.

## Next Steps

- Seek opportunities to refine the programs and niche of the **Cape Fear River Assembly**.
- Present results to get help with the interpretation and implications of the results for education, policy and related work. Include means to gather input through regional forums and annual meeting.
- Prepare written report based on further analysis, as well as comments from presentations and reviewers.
- One common theme is to restore public confidence in the safety of municipal water supplies.
- Created new website: <http://Enjoytapwater.com>

## More Information

We would appreciate any comments about the implications and interpretations of the findings.

I also would be happy to share results with any interested groups and facilitate application.

Contact:

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