

Executive Summary

In May 2009, Carolina Clear of the Clemson University Restoration Institute contracted with researchers from Clemson University's Department of Sociology and Anthropology (Dr. Catherine Mobley and Dr. James Witte) and the School of Computing (Dr. Roy Pargas) to conduct a telephone survey of residents of Horry and Georgetown counties in South Carolina.

The population of Horry and Georgetown counties is such that a sample of 385-400 respondents would permit estimates of the survey results with a margin of error of $\pm 5\%$ at a 95% confidence level. The survey was conducted from late May to early July 2009. Data were collected from 398 residents from the following ten zip code areas in Horry and Georgetown counties:

29526	29566	29575	29577	29582
29527	29572	29576	29579	29585

The main goal of the survey was to obtain information about residents' attitudes, knowledge, behaviors, and intentions as they relate to the environment. The results can serve as a baseline for measuring the success of future environmental and stormwater education efforts. The information collected about the various subgroups (and reported in the cross-tabulation analyses of the full report) can assist staff in targeting educational efforts by sociodemographic characteristics.

Brief Description of Sample

When compared to the general population, the sample of respondents from Horry and Georgetown counties was disproportionately female (62.6% of the sample vs. 50.9% of the actual population in the ten zip code areas, as reported by the U.S. Bureau of the Census) and better educated than the general population (with 44.2% of the sample earning a bachelor's degree or higher vs. 21.9% of the general population). With respect to race, 91.2% of the sample was white as compared to 84.1% of the general population. There were also some differences in the age profiles, with the survey comprised of a greater proportion of individuals 55 and older than found in the general population (64.5% vs. 35.2%, respectively) and a lower proportion of 18-24 year olds (4.1% of the phone survey vs. 11.3% of the watershed population). Nearly 93% of respondents indicated they were homeowners (as compared to 72.9% of the general population) and a minority (45.9%) of respondents indicated they lived next to a creek, stream, river, pond or other water body.

Research has shown that some of these segments of the population (e.g., higher-educated females) are more likely to participate in surveys. Thus, we adjusted for the demographic differences between the telephone sample and Census data by using standard statistical weighting procedures. The resulting weighted data are a closer approximation of Census population figures and are thus a better representation of the public's views on the issues covered in this survey. The results reported and discussed in this Executive Summary and the full report are based on the weighted data.

Main Findings

Survey results reveal a complex picture of the environmental views of residents of Horry and Georgetown counties. The summary below presents some of the main research findings.

- **Horry and Georgetown county residents are concerned about water quality in the region and place a high value on the water bodies in their area.** Slightly more than 45% of respondents are “very concerned” and 34.6% are “somewhat concerned” about pollution and the environmental quality of local streams and waterways. Respondents were also asked to choose the water resource in the region that they valued the most. Of the seven options listed, respondents were most likely to select the beaches as the water resource they valued most in the region (36.5%), followed by the Waccamaw River (26.8%), and the Intracoastal waterway (14.7%).
- **Residents have a basic level of understanding about the various causes of poor water quality.** When asked about the impact of humans on the environment, 53.4% of respondents indicated that what people do on the land affects the quality of their local streams and waterways “a great deal.” Nearly 77% of respondents “strongly agreed” or “agreed” that inspection and pump out of septic tanks protects water quality; however, 14% indicated they did not know. Just over 85% of respondents indicated that they “strongly agreed” or “agreed” that pet waste is a source of bacteria pollution in local waterways. Regarding beliefs about the treatment of stormwater, nearly 88% did not believe that stormwater was treated before reaching lakes, rivers and streams.

Respondents were also asked to rate the extent to which nine different activities impacted streams and lakes in the area. Of the items listed, respondents were most likely to indicate that the following sources of pollution had either a “great impact” or “some impact” on water quality: fertilizer and lawn chemicals that people use on their lawn and garden (86.4%), industrial sites (84.0%), fuel and oil leaks from trucks, buses or automobiles (78.7%), and farm operations (70.1%). On the other hand, respondents were most likely to say that the following sources of pollution had “very little impact” or “no impact” on water quality: runoff from people washing their cars (55.7%), pet waste (38.6%), and sediment or dirt from construction sites (30.7%).

- **The high level of concern about water quality is generally not matched by a high level of knowledge among residents about the basics of watersheds.** When asked to choose the correct definition of the term “watershed,” just over one-fourth (25.6%) of respondents selected the correct answer (“area that drains into a specific river or lake”). The next most frequently selected answer was “reservoir that serves as a municipal water source” (21.9%), followed by a “low area that retains water” (18.2%). Approximately 15.7% of respondents indicated “do not know” when asked to choose the correct definition of the term “watershed.”

- For the most part, residents of Horry and Georgetown counties are involved in water and environmental conservation efforts.** Nearly 70% of respondents indicated they made an effort to reduce water usage out of concern for water quantity (i.e., drought) issues in the past two years. However, a smaller proportion (43.8%) reduced water usage out of concern for water quality. In general, residents are somewhat active in citizen-based environmental efforts: one-third of respondents indicated that they had participated in a lake or river cleanup and 15.7% had joined or volunteered for a conservation organization in the past two years.
- There are some indications that the residents of Horry and Georgetown counties are engaging in environmentally-friendly household behaviors, although some residents are engaging in behaviors that could harm local rivers and streams.** Nearly all respondents indicated that, in the past two years, they “never” stored fertilizers and pesticides in leaking containers (99.8%), disposed of oil, paint, or other chemicals down storm drains (96.5%) or dumped grass clippings down storm drains or backyard creeks (92.8%). Nearly 2/3 of respondents (65.7%) of respondents indicated they “never” operated a motor vehicle with a leak. However, 61.0% of respondents indicated that they “never” washed their car on the lawn or gravel instead of pavement and nearly 30% of respondents indicated they “never” considered the likelihood of a rainstorm before treating their lawn with fertilizer or pesticides. Slightly more than one-fourth of respondents (25.7%) indicated they “never” cleaned up after their pets when taking them for a walk.
- Horry and Georgetown county residents are somewhat active in outdoor recreational behaviors, but there is a mixed picture in regard to water-based recreational activities.** Visiting the beach, fishing, and hiking and walking in parks or other protected lands were the three most popular recreational activities for respondents (with 56.6%, 38.1%, and 33.7% of respondents indicating they participated in these activities “often,” respectively). However, a majority (54.0%) of respondents indicated that they have “never” gone swimming in rivers or lakes, 79.2% of respondents indicated they have “never” kayaked or canoed and 71.1% indicated they had “never” gone hunting or trapping.
- The high level of concern about water quality is generally matched by a high level of willingness to get involved in water resource issues.** Nearly 80% of respondents indicated they would “very likely” become involved if they were directly impacted by water quality. The media could play an influential role in promoting involvement in water improvement efforts: nearly 45% of respondents and 42% of respondents indicated they would “very likely” get involved if the media: ran stories on positive actions taken by local residents to improve water quality and if the media ran stories about local water pollution problems, respectively. And, 43.5% indicated they would “very likely” become involved if they knew the local government could save money in the long run by taking action to improve water quality. Nearly 30% of respondents indicated they would “very likely” become involved in water quality improvement efforts if they had more information about local water quality issues.

- **Respondents use a variety of media for receiving local and regional information and news.** Respondents were asked to choose the three primary ways that they receive local and regional information and news. The most frequently selected source of information was the evening news, selected by 68.6% of respondents. The local newspaper and the television morning news were the next two most frequently cited sources of information, selected by 66.4% and 64.3% of respondents, respectively. Billboards and posters and events/workshops were the least frequently mentioned source of news: 9.0% and 2.3% of respondents indicated these sources as one of their three primary sources of news, respectively. In response to a separate question, 58.5% of respondents indicated they used the Internet to get their local and regional news.
- **There is a low level of awareness among respondents about local organizations that seek to improve water quality.** Slightly more than 82% of respondents indicated they had never heard of Carolina Clear. However, 11.3% indicated they had heard of Carolina Clear, but were not aware of its programs and 6.3% indicated they were aware of Carolina Clear and were familiar with its programs. Respondents were more familiar with the Coastal Waccamaw Stormwater Education Consortium: just over two-thirds (67%) of respondents indicated they had not heard of the consortium, while nearly 24% indicated they had heard of the consortium, but were not familiar with its programs. Nine percent of respondents indicated they were aware of the Consortium and familiar with its programs.