

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 Charleston, Berkeley and Dorchester counties (henceforth "the tri-county area") in South Carolina.

The population of the tri-county area 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 mid-June through mid-July 2009. Data were collected from 399 residents from the following 23 zip code areas in the tri-county area of Charleston, Berkeley and Dorchester counties:

29401	29404	29407	29418	29439	29456	29465	29484
29402	29405	29412	29420	29445	29461	29482	29485
29403	29406	29414	29423	29451	29464	29483	

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 as reflected in Census 2000 data, the tri-county survey sample was disproportionately female (61.4% of the sample vs. 50.9% of the actual population in the 23 zip code areas, as reported by the U.S. Bureau of the Census) and better educated than the general population (with 51.8% of the sample earning a bachelor's degree or higher vs. 25.4% of the general population). With respect to race, 81.7% of the sample was white as compared to 68.0% of the general population. There were also some differences in the age profiles, with the survey sample comprised of a greater proportion of individuals 55 and older than found in the general population (52.6% vs. 24.2%, respectively) and a lower proportion of 18-24 year olds (4.1% of the phone survey vs. 15.5% of the general population). The proportion of respondents who indicated they were homeowners (87.8%) was greater than the proportion of homeowners reflected in the Census data (62.7%). Just over 40% 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 tri-county residents. The summary below presents some of the main research findings.

- **Residents of the tri-county area are concerned about water quality in the region and place a high value on the water bodies in their area.** Nearly 32% of respondents are “very concerned” and 41.9% are “somewhat concerned” about pollution and the environmental quality of local streams and waterways.

- **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, 46.8% of indicated that what people do on the land affects the quality of their local streams and waterways “a great deal.” However, 7% indicated they did not know. Nearly 65% of respondents “strongly agreed” or “agreed” that inspection and pump out of septic tanks protects water quality, although 20.8% responded “do not know” for this survey item. Approximately 67.4% “strongly agreed” or “agreed” that pet waste is a source of bacteria pollution in local waterways; 11.6% indicated they did not know if this was the case. Regarding beliefs about the treatment of stormwater, 77% of respondents 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. Respondents were most likely to say that the following sources of pollution had either a “great impact” or “some impact” on water quality: industrial sites (84.5%), fuel and oil leaks from trucks, buses or automobiles (86.5%), and fertilizers and lawn chemicals that people use on their lawn and garden (78.2%). Of the items listed, respondents were most likely to indicate that the following sources of pollution had either “very little” or “no impact” on water quality: waste from birds (59.2%), pet waste (46.3%), and run off from people washing their cars (43.8%).

- **The high level of concern about water quality is generally matched by a fairly good level of knowledge among residents about the basics of watersheds.** When asked to choose the correct definition of the term “watershed,” 29.5% of respondents selected the correct answer (“area that drains into specific river or lake”). However, slightly more than one-fifth (21.5%) indicated they did not know the correct definition for the term “watershed.” An equal proportion of respondents (14.7%) selected the following two definitions: “reservoir that serves as a municipal water source” and “small building where water is stored.”
- **For the most part, residents of the tri-county area are involved in water and environmental conservation efforts.** Slightly more than 72% of respondents of respondents indicated that, in the past two years, they had made an effort to reduce water usage out of concern for water quantity (i.e., drought) issues. However, a smaller proportion (40.2%) revealed that, in the past two years, they had reduced water usage out of concern for water quality. In general, tri-county residents are somewhat active in citizen-based environmental efforts: slightly more than 30% of respondents indicated that they had participated in a lake or river cleanup, while slightly more than 18% indicated they have joined or volunteered for a conservation organization in the past two years.
- **There are some indications that tri-county residents are engaging in environmentally-friendly household behaviors, although some residents are engaging in behaviors that could harm local rivers and streams.** Nearly all of the respondents indicated that, in the past two years, they “never” disposed of oil, paint, or other chemicals down the drain (96.0%), stored fertilizers and pesticides in leaking containers (95.8%), or dumped grass clippings down storm drains or backyard creeks (93.8%). Eighty-six percent of respondents indicated they “never” operated a motor vehicle with a leak and just over one-half of respondents (53.9%) indicated they “always” considered the likelihood of a rainstorm before treating their lawn with fertilizers or pesticides. Slightly more than 82% of respondents indicated they “always” cleaned up after their pets when taking them for a walk and nearly 54% “always” considered the likelihood of a rainstorm before treating their lawn with fertilizer or pesticide. However, nearly 70% of respondents indicated that they “never” washed their car on the lawn or gravel instead of pavement.
- **Tri-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 and hiking and walking were the two most popular activities, with 35.3% and 20.4% of respondents indicating they participated in these activities “often,” respectively. However, nearly 84.4% of respondents indicated they have “never” gone hunting or trapping, 83.6% indicated they had “never” kayaked or canoed, 64.0% indicated they had “never” gone swimming in rivers or lakes, and 63.9% indicated they “never” had gone motorboating. Just over one-half (51.1%) of respondents indicated they had “never” gone fishing.

- **The high level of concern about water quality is generally matched by a high level of willingness to get involved with water resource issues.** Slightly more than 82% of respondents indicated they would “very likely” become involved if they were directly impacted by water quality. Nearly 48% of respondents said they would “very likely” become involved in water quality improvement efforts if they knew the local government could save money. Nearly 45% of respondents indicated it was “very likely” they would become involved if the local media ran stories on positive actions taken by residents to improve water quality. Respondents were least likely to indicate they would “very likely” become involved for two items: if the local media ran stories on local water pollution problems (36.7% indicating “very likely” for this item) and if they had more information about water quality issues in their area (30.5% indicating “very likely”).
- **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. Slightly more than 62% of respondents indicated that they received their news through television evening news broadcasts and 60.7% indicated the television morning news was a primary source of information. Local newspapers were the third most important source of information for respondents: 44.8% of respondents indicated this as one of their three primary sources of news. Billboards and posters and events and workshops were the least frequently mentioned source of news and information: 2.4% and .8% indicated these sources as one of their three primary sources of news, respectively. In response to a separate question, slightly more than 56% 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 92% of respondents indicated they had never heard of Carolina Clear. Slightly more than 6% had heard of Carolina Clear, but were not aware of its programs, while 1.5% indicated they were aware of Carolina Clear and were familiar with its programs. Respondents were slightly more aware of the Ashley Cooper Stormwater Education Consortium: 14.7% of respondents indicated they had heard of the consortium, but were not familiar with its programs. One percent of respondents indicated they were aware of the Consortium and its programs. However, 84.3% had not heard of the Consortium.