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 the Midlands region of South Carolina.

The population of the Midlands region 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 mid-July to early August 2009. Data were collected from 403 residents from the following 28 zip code areas in the Midlands region:

29016	29061	29150	29169	29201	29205	29210
29033	29063	29152	29170	29202	29206	29212
29040	29072	29153	29172	29203	29207	29223
29053	29073	29154	29177	29204	29209	29229

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 Midlands region survey sample was disproportionately female (63.3% of the sample vs. 51.7% of the actual population in the 28 zip code areas, as reported by the U.S. Bureau of the Census) and better educated than the general population (with 52.4% of the sample earning a bachelor's degree or higher vs. 28.5% of the general population). With respect to race, 74.7% of the sample was white as compared to 61.0% 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 (46.3% vs. 24.0%, respectively) and a lower proportion of 18-24 year olds (5.3% of the phone survey vs. 15.8% of the general population). Approximately 88.5% of respondents indicated they were homeowners (as compared to 2/3 (66.0%) of the general population) and a minority of 41.2% 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 Midlands residents. The summary below presents some of the main research findings.

- **Residents of the Midlands region are concerned about water quality in the region and place a high value on greenways.** Approximately 44.5% of respondents are "very concerned" and 37.6 % are "somewhat concerned" about pollution and the environmental quality of local streams and waterways. Nearly 81% of respondents indicated that greenways were valuable assets to the community.

- **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, 62.6% of respondents indicated that what people do on the land affects the quality of their local streams and waterways "a great deal." Nearly 78% of respondents "strongly agreed" or "agreed" that inspection and pump out of septic tanks protects water quality; 13.0% indicated "do not know" for this question. Slightly more than 79% of respondents "strongly agreed" or "agreed" that pet waste is a source of bacteria pollution in local waterways (although nearly 10% indicated they did not know). Regarding beliefs about the treatment of stormwater, nearly 3/4 of respondents (74.1%) 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: fertilizers and lawn chemicals (83.4%), fuel and oil leaks from trucks, buses or automobiles (82.9%), and industrial sites (81.1%). Of the items listed, respondents were most likely to indicate that the following sources of pollution had either "very little impact" or "no impact" on water quality: waste from birds (49.4%); run off from people washing their cars (43.0%) and pet waste (35.8%).

- **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," nearly one-third (33.1%) of respondents selected the correct answer ("area that drains into specific river or lake"). However, slightly more than one-fourth (25.3%) of respondents indicated "do not know" when asked to choose the correct definition of the "term" watershed. A nearly equal proportion selected either "low area that retains water" (14.7%) or "reservoir that serves as a municipal water source (14.6%). When asked if they could name the local body of water that absorbs runoff after a rainstorm, a large proportion of respondents (43.6%) indicated they could not do so.

- **For the most part, Midlands residents 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 (40.8%) reduced water usage out of concern for water quality. In general, Midlands residents are somewhat active in citizen-based environmental efforts: nearly 26% of respondents indicated they had participated in a lake or river cleanup and 15% had joined or volunteered for a conservation organization in the past two years.

- **There are some indications that Midlands residents are engaging in environmentally-friendly household behaviors, although some residents are engaging in behaviors that could harm local rivers and streams.** Nearly all respondents (99.5%) indicated that, in the past two years, they "never" stored fertilizers and pesticides in leaking containers, disposed of oil, paint, or other chemicals down storm drains (98.8%) or dumped grass clippings down storm drains or backyard creeks (98.4%). Nearly 82% (81.7%) of respondents indicated they "never" operated a motor vehicle with a leak. However, a slight majority of respondents (50.7%) indicated that they "never" washed their car on the lawn or gravel instead of pavement, 42.2% of respondents indicated they "never" considered the likelihood of a rainstorm before treating their lawn with fertilizers or pesticides, and nearly 30% of respondents indicated they "never" cleaned up after their pets when taking them for a walk.

- **Midlands residents are not very active in outdoor recreational behaviors, especially as it concerns water-based recreational activities**. Hiking and fishing were the two most popular recreational activities for Midlands respondents (with 17.2% and 10.7% of respondents indicating they participated in these activities "often," respectively). However, nearly 83% of respondents indicated they have "never" gone hunting or trapping, 78.2% indicated they "never" had kayaked or canoed, 60.5% had "never" gone motorboating, and 56.4% indicated they had "never" gone swimming in rivers or lakes. And, although fishing was the second most popular activity, still 44.8% of respondents indicated they had "never" fished.

- **The high level of concern about water quality is generally matched by a somewhat 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. However, for the other four items, the proportion of respondents indicating they would "very likely" get involved was substantially lower than if they were directly impacted: if they knew local government could save money by taking actions to improve water quality (47.4% said "very likely"), if the local media ran positive stories taken by local residents to improve water quality (38.7%), the local media ran stories on local water pollution problems (37.5%), and if they had more information about water quality issues in the area (30.3%).

- **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. By far, the most popular source of information and news was television evening news broadcasts, with slightly more than 85% of respondents indicated that they received their news through this source. Slightly more than 55% indicated they listened to the morning news for local and regional information. Local newspapers were the third most important source of information for respondents: 47.6% of respondents indicated this as one of their three primary sources of news. Regional newspapers were one of the top three choices for 24.2% of respondents. Billboards and posters and events/workshops were the least frequently mentioned source of news: 5.7% and 3.0% indicated these sources as one of their three primary sources of news, respectively. In response to a separate question, nearly 69% 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.** Nearly 88% of respondents indicated they had never heard of Carolina Clear. However, 11.5% indicated they had heard of Carolina Clear, but were not aware of its programs; less than 1% indicated they were aware of both Carolina Clear and its programs. Respondents had a similar level of awareness of the Lexington County Stormwater Consortium: just over 90% of respondents indicated they had not heard of the consortium, while just over 8% indicated they had heard of the consortium, but were not familiar with its programs. A small proportion (1.4%) indicated they were aware of both the Consortium and its programs.

- **Respondents were somewhat aware of county ordinances that are in place to protect water quality.** Nearly 11% of respondents were "very familiar" and slightly more than 15% of respondents were "somewhat familiar" with their county's ordinances that are designed to protect water quality. However, nearly 3/4 (73.7%) of those surveyed indicated they were not at all aware of these local regulations and ordinances.