

Executive Summary
Results for the 2014 Carolina Clear Stormwater Survey
Midlands
Overview of Research Effort

In Spring 2013, Carolina Clear of the Clemson University Restoration Institute contracted with researchers from George Mason University (Dr. James Witte) and Clemson University (Dr. Catherine Mobley) to conduct a telephone survey of residents of Charleston, Berkeley and Dorchester counties in South Carolina. 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 survey was conducted from in Fall 2013 and Spring 2014. Data were collected from 384 residents from the following 47 zip code areas in the Midlands region:

29002	29203	29215	29225	29040
29016	29204	29216	29226	29128
29044	29205	29217	29227	29150
29052	29206	29218	29229	29152
29061	29207	29219	29230	29153
29063	29208	29220	29240	29154
29147	29209	29221	29250	29168
29177	29210	29222	29260	
29201	29211	29223	29290	
29202	29214	29224	29292	

The resulting data were weighted to be more statistically representative of the broader population. The weighted results are presented below.

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. Where relevant and statistically significant, comparisons between 2009 and 2013 results are presented.

- **Residents of the Midlands are concerned about water quality and the proportion of residents who expressed such concern increased between 2009 and 2013.** More than half (51.8%) of respondents indicated they were “very concerned” and another 35.5% indicated they are “somewhat concerned” about pollution and the environmental quality of local streams and waterways. This represents a statistically significant increase for “very concerned” from 2009, when 44.5% of respondents said they were “very concerned” about water quality ($X^2=9.088$; $df=3$; $p<.05$).

- **Residents have a good level of understanding about the various causes of poor water quality.** In 2013, when asked about the impact of humans on the environment, 72.0% of respondents indicated that what people do on the land affects the quality of their local streams and waterways “a great deal”; an additional 18.9% indicated that such activities impact water quality “somewhat.” These responses in 2013 represent a statistically significant change from the 2009 responses, when 62.6% indicated a “great deal” and 17.6% indicated “somewhat” ($X^2=33.142$; $df=4$; $p<.001$). It is also important to note that there was a decrease between 2009 (8.9%) and 2013 (2.0%) in the proportion of respondents who indicated “do not know” in response to this survey item.

In 2013, approximately 76.8% of respondents “strongly agreed” or “agreed” that pet waste is a source of bacteria pollution in local waterways (as compared to 79.3% in 2009). There was a slight decrease in the proportion of respondents who indicated they did not know if this was the case (6.2% in 2009, as compared to 4.8% in 2009). Overall, these data do not represent a statistically significant change in responses over time.

- **Less than 1/3 of respondents chose the correct definition of the term “watershed.”** There was a significant decrease between 2009 and 2013 in the proportion of respondents who indicated “do not know” when asked to select the correct definition of the term watershed (25.3% in 2009 and 11.1% in 2013). However, in 2013, only 31.4% of respondents actually selected the correct definition of the term (“area that drains into a specific river or lake”), as compared to 33.1% in 2009. There was an increase in the proportion of respondents who selected the following incorrect definitions for the term “watershed”: “low area that retains water” (14.7% in 2009 versus 18.9% in 2013); “reservoir that serves as a municipal water source (14.6% in 2009 versus 19.9% in 2013); and “small building where water is stored” (8.5% in 2009 versus 15.6% in 2013) ($X^2=34.767$; $df=5$; $p<.001$).
- **Results indicate some improvements in respondents’ engagement in positive actions, or avoiding negative actions, that impact water quality. However, there is room for improvement.** In 2009, nearly 30% of respondents indicated they “never” cleared up after their dog; by 2013, this proportion decreased by nearly half as approximately 15% indicated they “never” cleaned up after their dog. While there was a decrease between 2009 and 2013 in the proportion of dog owners who “always” cleaned up after their dog (from 64.2% in 2009 to 54.5% in 2013), there was a significant increase in the proportion of respondents who indicated they “nearly always” cleaned up after their dog (from 3.5% in 2009 to 22.6% in 2013) ($X^2=41.913$; $df=3$; $p<=0$).
- **Respondents use a variety of sources of information to learn about local and regional news.** In 2013, the most popular source of local/regional news was “TV-evening news” with 71.2% of Midlands respondents indicating this source as one of their top three sources. Slightly more than half (52.5%) of the respondents indicated that the “TV-morning news”



was one of their top three sources of information, followed by the Internet (mentioned by 45.6% of respondents).

- **Respondents were not very familiar with state and regional stormwater education organizations, although there has been an increase in recognition of the statewide organization over time.** Between 2009 and 2013, there was an increase in the proportion of respondents who indicated they were aware of Carolina Clear and its programs (from 0.8% in 2009 to 7.8% in 2013). Relatedly, there was a decrease in the proportion of respondents who indicated they had never heard of Carolina Clear (from 87.7% in 2009 to 78.8% in 2013). And, there was a slight increase in the proportion of respondents who indicated they had heard of Carolina Clear, but were not familiar with its programs (from 11.3% in 2009 to 15.1% in 2013)($X^2=27.362$; $df=2$; $p<.001$). Regarding the regional stormwater education organization, in 2013, approximately 77.5% of respondents indicated they had never heard of Sumter Stormwater Solutions; 9.6% indicated they were aware of this organization and its programs, while another 12.9% indicated they had heard of Sumter Stormwater Solutions, but were not familiar with its programs.