



Southwest Florida Water  
Management District

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White Paper Research  
Barriers and Benefits  
Final Report

## Executive Summary

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The Southwest Florida Water Management District (the District) partnered with SalterMitchell, Inc. (SM) to explore the public's attitudes and behaviors concerning the issues outlined in nine white papers prepared by the environmental social marketing leader, Doug McKenzie-Mohr. Three surveys were conducted between July 2008 and February 2009, querying residents in the 16 counties of the District's service area for a total of 2,667 responses. Respondents were randomly chosen from an online panel made up of residents who previously agreed to participate in survey research. All respondents had a lawn that was cared for by someone in the home or a paid lawn service or gardener.

Since one of the goals of the study was to use the information to develop future social marketing campaigns, ideas on how to develop social marketing messages and campaigns are suggested when appropriate throughout this report.

Guided by the issues outlined in the white papers, the research objectives were to gauge the public's opinions and current behaviors with regard to:

- Fertilizer
- Pesticide
- Pet waste
- Rain sensors
- Lawn mowing
- Downspouts
- Low-flow showerheads
- Septic system maintenance
- Motor oil disposal

### FINDINGS: WHITE PAPER ISSUES

#### Fertilizer

The highest concentration of fertilizing occurs in the spring months (57%) – mostly during March and April – and in the fall (55%) – mostly during September and October (Chart 2.2). These may be good times to approach audiences with specific messages about fertilizer regarding resources for proper use such as consulting a master gardener or even how to determine if they should apply fertilizer at all. Residents may be more open to receiving strategically designed messages during these times of the year.

Nearly half (41%) of respondents reported deciding when to fertilize their lawns based on the condition of the lawn. The District could disseminate information about what a healthy lawn should look like in order to keep residents from fertilizing when their lawns do not really need it.

Regarding the amount of fertilizer to apply to their lawns, about two-thirds (64%) reported using the directions on the package. The majority of responses who answered "other" when asked how they decide the amount of fertilizer to apply indicated that their lawn service makes the decision. While some residents are not the direct decision-makers about how to care for their lawns, they still indicated being a decision-maker in the household and responsible for paying the lawn service or gardener. They might be reached with messages about ensuring that the person who cares for the lawn does so appropriately.

#### Pesticides

Respondents are primarily concerned with having nice lawns. Regarding pesticides, a large majority agreed that having an attractive (79%) and healthy lawn (78%) was important to them. Recognizing that many residents prioritize how their lawns will look when they are deciding how to landscape and apply pesticides is important to note when developing strategies to target behavioral goals. The importance of getting rid of pests appears to outweigh concerns about the risks. The District may want to consider developing messages about safe pesticide use such as keeping pesticides clear of hardtop surfaces and

away from natural bodies of water. Helping residents to identify and encouraging them to seek effective non-chemical alternatives may also aid the District in reaching their behavioral goals.

### **Pet Waste**

About half the survey respondents owned dogs. Dog owners are not a homogenous group. There were, however, a few areas discussed in this survey that dog owners widely agreed upon: that picking up pet waste is a necessity (73%), that proper pet waste disposal is not a problem in their community (75%) and that the presence of pet waste does not hinder them from enjoying the outdoors (72%). Perhaps dog owners accept pet waste as a normal condition for the outdoors, which may make the latter two highly biased.

Respondents who did not own dogs were statistically more likely to agree that pet waste is a health hazard to humans and that pet waste left on the ground will eventually end up in the closest body of water. Respondents who indicated they owned a dog were statistically more likely to agree that pet waste can serve as fertilizer and that putting dog waste in a plastic bag, which will possibly end up in a landfill, is worse for the environment than leaving it on the ground.

Dog owners' attitudes toward the benefits of not picking up their dog's waste may present a problem to the District in efforts to increase pet owners' proper disposal of their dogs' waste. Pet owners did not feel that proper pet waste disposal was a problem in their communities. Perhaps a messaging effort redefining norms about pet waste would cause pet owners to change their attitudes toward pet waste.

### **Rain sensor installation**

People who have rain sensors are unique. They are water-conscious and will go the "extra mile" when it comes to saving water. People with rain sensors tend to worry about their water usage and take measures to reduce their water usage. According to the results of this survey, it seems that more people would be interested in installing a rain sensor after learning more about them. This group may even be able to serve as an ally to the District in helping community members understand how to install and use rain sensors.

People who did not have a rain sensor installed at the time they participated in this survey seem interested in its benefits. Of the people who do not currently have a rain sensor, nearly half (45%) said they were interested in installing rain sensors. Two-thirds (64%) said they would install a rain sensor if they received a rebate for doing so. After finding out that a rain sensor would cost between \$30 and \$50, 58% said they would still be interested in installing a rain sensor.

There is an opportunity here to increase rain sensor use. The District may want to develop a program to offer rebates or help with installation to people who want to install rain sensors in their yards. Maybe a program that gives good lawn stewards bragging rights as a status.

### **Lawn mowing**

Lawn mowing is widely viewed as an important day-to-day activity. Of all of participants' responsibilities regarding lawn care, keeping lawns mowed (87%) was more often perceived as important compared with other lawn care activities. Respondents indicated that keeping their lawns mowed was important almost as many times as they said that eating dinner with the family was

Most (78%) agreed that the longer their grass is the more they feel a need to cut it. Two-thirds of residents who reported owning a lawn mower (62%) said that longer grass makes a lawn look less attractive. About half agreed that keeping their grass cut short is important to them (54%). Almost half (45%) said that they cut their grass often because they worry about weeds growing on their lawn and that regardless of how long their grass is, they always water their lawn with the same amount of water (47%).

A social marketing opportunity may be to "brand" taller grass as part of a Florida-friendly yard.

### **Downspout disconnection**

Three-quarters of the respondents said that they have a downspout based on the definition given in the survey and three-quarters (77%) reported knowing how they work.

Residents see the value of redirecting rainwater onto their landscape but see more risks than benefits concerning rain barrels. While many reported redirecting rainwater to their landscape, they consider maintaining a rain barrel a nuisance and are afraid of developing a possible mosquito breeding ground.

When asked to identify where the water that flows into the street drains goes, nearly a third (30%) said the sewer system, a quarter (24%) said it went to a local body of water and another third (31%) said that they did not know. More than half of the sample reported concern about suffering water damage to their homes (58%) and are concerned that storm flooding will impact the quality of their water (54%). A third (33%) say they worry about rainwater flooding the storm drains in their neighborhood.

### **Low-flow showerheads**

Respondents want to save on their utility bills and most are taking actions to do so. They want to save on electricity and water but may be looking to ways other than installing low-flow showerheads to decrease their household's water usage.

There are not many barriers to using a low-flow showerhead. A majority agreed that installing a low-flow showerhead was easy (73%) and that low-flow showerheads were easy to find in stores (69%), while 48% indicated being interested in installing one in their home. This may be because respondents are not frequently shopping for new showerheads. Less than a quarter (22%) of respondents reported buying a new showerhead less than a year ago. Nearly half (48%) said the last time they bought a showerhead was more than a year ago.

Positioning low-flow showerheads as a good way to save money on the home's utility bills may spark increased low-flow showerhead use in residents' homes. According to the results of this survey, the major barriers in increasing the use of low-flow showerheads seemed to be an affinity for strong water-pressure while taking a shower and the fact that people do not shop for showerheads often.

### **Septic tank maintenance**

Respondents who owned a septic tank seem to know the resources they need to perform proper septic tank maintenance; however, they are not performing those behaviors as often as they should. Responses gathered from participants concerning septic tank maintenance shows that residents believe that finding professional care for their tanks is easy. Remembering to maintain their tank before a problem occurs or inspecting the tank as often as recommended, however, was not widely reported.

A timely reminder through mail, perhaps in a supplement or newsletter in a monthly statement from the electric company or homeowner's insurance agency, along with a coupon or some other incentive may encourage homeowners to have their tanks inspected.

### **Motor Oil Disposal**

Nearly all respondents (97%) reported owning a car, and the majority (83%) of respondents reported taking their car to a mechanic or oil changing facility to change their oil. This may be part of the reason why respondents did not have strong opinions regarding motor oil. Perhaps they did not know very much about motor oil changing and therefore motor oil dumping. Respondents did not have to worry about disposing of the motor oil themselves.

Respondents recognized that disposing of oil properly is important and that it is the "right" thing to do. A large percentage (72%) agreed it is important to always recycle used motor oil. As car owners appear to be unlikely to be involved with the actual disposing of the oil, a better audience for this issue may be the mechanics who are more likely to have motor oil to dispose of as well as oil changing shops.

Residents of the Central region were less likely to know where to properly dispose of their used motor oil, less likely to fully understand how to properly dispose of used motor oil and more likely to agree that there

are no used motor oil dumping sites in or near their community. However, respondents strongly agreed that it was important to always recycle used motor oil and may be open to receiving messages informing them about how to properly dispose of their motor oil and how to ensure that their mechanics or oil changing shops are doing so as well.

It is clear that respondents living in the Central region of the District need an intervention concerning the dumping of used motor oil and may be receptive to messages about proper disposal if the message is framed in a way that resonates with this group.

## **ADDITIONAL FINDINGS**

### **Landscaping**

When making choices about landscaping, a majority of respondents care most about how such decisions affect them personally, i.e., how they will impact the appearance of their yard, their landscaping costs and their property values. Any social marketing campaign will want to be careful to create messages that appeal to residents' values, i.e., suggestions about specific plants and irrigation systems that require less fertilizer or less water could be presented as landscaping that will save money while promoting its environmental merits as a secondary benefit.

Respondents widely agreed that protecting the community was extremely important. They acknowledged the importance of protecting water and choosing landscaping that helped protect local water resources. Florida-friendly landscaping is a recognizable brand. Many respondents reported using FloridaFriendlyLandscaping.com as a resource for landscaping information.

The District should continue to employ these motivators in their social marketing efforts to encourage Florida-friendly landscaping. The most frequently identified barriers to using Florida-friendly landscaping reported were the cost of changing their landscape (71%) and that respondents like their landscape the way it currently is (61%).

### **Water**

While residents believe that protecting local water sources is important, they are not aware of the severity of local water conditions. Most respondents described the current water resource conditions in their area as "drier than normal." Nearly all respondents (92%) reported some level of concern about the water resources in Central Florida with half (50%) indicating they were very concerned.

The majority of respondents reported having a public water utility service and using drinkable water to water irrigate their lawns. Perhaps methods of saving water while combating mosquito breeding can be promoted in order to get more residents to use reclaimed water on their lawns.

Respondents were asked about things that might encourage them to save more water. Among the most frequently identified factors were a declared drought (93%) or water shortage (90%), fear of running out of water (92%), and the cost of water (90%). Respondents in all three regions of the District agreed that they are supportive of government actions such as tightened water restrictions as a means of addressing a water shortage problem.

## Introduction

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The Southwest Florida Water Management District (the District) partnered with SalterMitchell, Inc. (SM) to explore the public's attitudes and behaviors concerning the issues outlined in nine white papers prepared by the environmental social marketing leader, Doug McKenzie-Mohr.

Three surveys were conducted with residents within the 16 counties of the District's service area. A total of 2,667 responses were collected during three different timeframes:

- Survey 1 – n=914 July 9-15, 2008
- Survey 2 – n=914 November 8-13, 2008
- Survey 3 – n=839 February 8-12, 2009

This report analyzes data gathered from all three surveys. The report is separated by general findings, specific "white paper" areas and demographics. Although the text of the report includes discussion of the major data findings, the breakdown of the data can be found in the appendices. The three survey instruments can be found in the appendices as well.

Since one of the goals of the study was to use the information to develop future social marketing campaigns, ideas on how to develop social marketing messages and campaigns are suggested when appropriate.

## Methodology

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### Online Panel

Respondents were randomly chosen from an online panel made up of participants who previously agreed to participate in survey research. This online panel survey approach was chosen as an alternative to more traditional telephone and mail surveys for greater operational benefits. Panel studies lend themselves to results that are faster, more cost-effective and have increased response rates. Online panels eliminate interviewer bias – since the instrument is delivered directly to the participant, the participant is less likely to misunderstand questions.

### Research Goals

The District sought to learn more about residents' behaviors and attitudes regarding nine different environmental subjects outlined in the McKenzie-Mohr white papers.

The main research objectives were to gauge the public's opinions and current behaviors with regard to:

1. Fertilizer.
2. Pesticide.
3. Managing pet waste.
4. Rain sensors.
5. Lawn mowing.
6. Downspouts.
7. Low-flow showerheads.
8. Septic system maintenance.
9. Motor oil disposal.

## **Survey**

The survey instruments were designed by Salter Mitchell's research department in cooperation with the communication staff at the District. All survey questions were designed to meet the research objectives mentioned above.

*Norms:* Social marketing research has shown that people are more likely to adopt a behavior if they believe that it is "normal," i.e., something that most people like them do. These measures gauged respondents' level of agreement on statements related to what they perceive is common in their lives.

*Lawn care behaviors:* Respondents were asked several questions about how they care for their lawn, including how they fertilize, use pesticide and manage pet waste, to gauge what target behaviors require more attention from the District.

*Motivators:* Some questions helped identify respondents' possible motivators – how they determine their behavior. These questions help build an understanding of the decision-making process regarding these behaviors.

*Demographics:* Segmentation variables such as age, sex, race, employment status, income range, marital status and region within the District were collected. These variables allow comparisons to be made within the sample population.

## **Statistical Analysis Procedures**

All data were analyzed using the Statistical Package for the Social Sciences (SPSS) 16.0 computer program. Specifically, cross tabulation comparisons were tested for differences by using the Pearson Chi-Square test. The statistical tests were conducted at the 95 percent confidence level ( $p < 0.05$ ).

Statistical differences will be noted in the report when they occur. If no statistical difference is found, the groups are assumed to be similar. The bulk of this report will focus on directly analyzing the research objectives outlined by the District staff and SM.

The overall data percentage breakdown can be found in the electronic appendices of this report.

## Section 1: General Findings

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### White Paper Survey One: General Lawn Care Trends

#### Caring For The Lawn

All respondents had a lawn that was cared for by someone in the home or a paid lawn service or gardener. Nearly all (84%) were homeowners. More than two-thirds (68%) of respondents' lawns were cared for by someone in the home and nearly a third (31%) were cared for by a paid lawn service or gardener. Between regions, there were statistical differences found in who cared for the lawn. Residents in the South region of the District were more likely to pay a lawn service or gardener to care for the lawn in comparison to the North and Central regions.

#### Importance of Day-to-Day Activities

In order to paint a picture of where fertilizer, pesticide and pet waste fit into respondents' priorities, participants in the survey were asked to rate the importance of several day-to-day activities with which they and their neighbors were likely to be familiar. Participants' ratings of these activities or responsibilities according to their perception of importance gives insight into how much thought or effort they put into performing each of these tasks.

Participants were asked to rate how important each activity was to them on a scale from 1 to 10. A rating of 1 indicated that the activity was not important at all and a rating of 10 indicated that the activity was extremely important. The activities listed in the question were daily activities that the average person may perform, including activities outlined in the white papers.

Activities in this question are ranked in the results by the percentage of respondents who said it was important. The percentages listed for each activity indicate respondents who felt the activity was at least somewhat important. This means that the respondent indicated the activity was a 6 or more on the scale of importance. The mean of each activity indicates the intensity of importance respondents felt it held. The higher the mean, the more important respondents felt it was. For example, although Chart 1.1 (below) shows that 78% of participants said that both finding time for themselves and changing the oil of their personal vehicles were important (a rating of 6 or higher), according to Chart 1.2 (below), participants felt that finding time for themselves was more important than changing the oil of their personal vehicles.

Compared with other day-to-day activities, the results show that fertilizer use and pet waste management are not very high on respondents' list of things to do. This is a positive sign, showing that people care more about installing energy-saving appliances than they do about fertilizing or watering their lawns – two behaviors that the District aims to reduce. Of the activities listed here, paying bills was the most important to respondents while cleaning out the gutters was the least important.



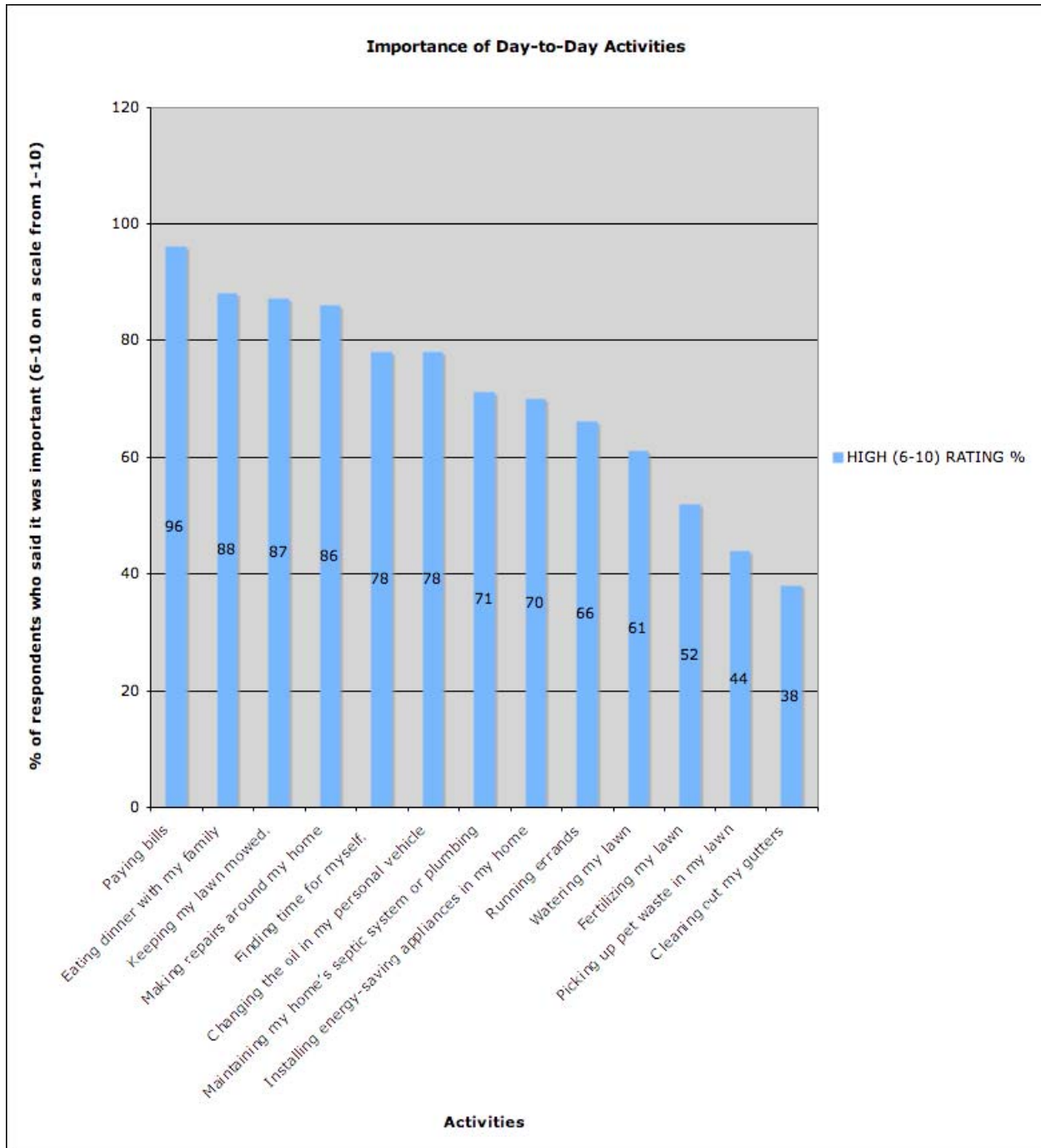


Chart 1.1

The responses in Chart 1.1 show respondents' prioritization of day-to-day activities. Of all the responsibilities regarding lawn care, keeping their lawns mowed (87%) was more often perceived as important compared with other lawn care activities. Respondents indicated that keeping their lawns mowed was important almost as many times as they said that eating dinner with the family was. A statistical difference showed that residents of the South region tended to feel that making repairs around the home was more important than residents of the North and Central regions. Watering (61%) and fertilizing (52%) were much farther down the list of activities respondents said were important. Nearly

three-quarters (71%) said that maintaining their home’s septic system or plumbing was important. This is good news for the District as they strive to encourage people to maintain their septic systems. Residents of the Central region were statistically more likely to feel that cleaning out their gutters and maintaining their home’s septic system and plumbing were important compared to residents of the other regions.

Regarding activities of a more personal nature, paying bills was more frequently indicated as important compared with the other activities listed in this question. This may be due to current concerns about the economy. Respondents also seem to be putting their families before themselves. More respondents said that eating dinner with their families was important compared with finding time for themselves.

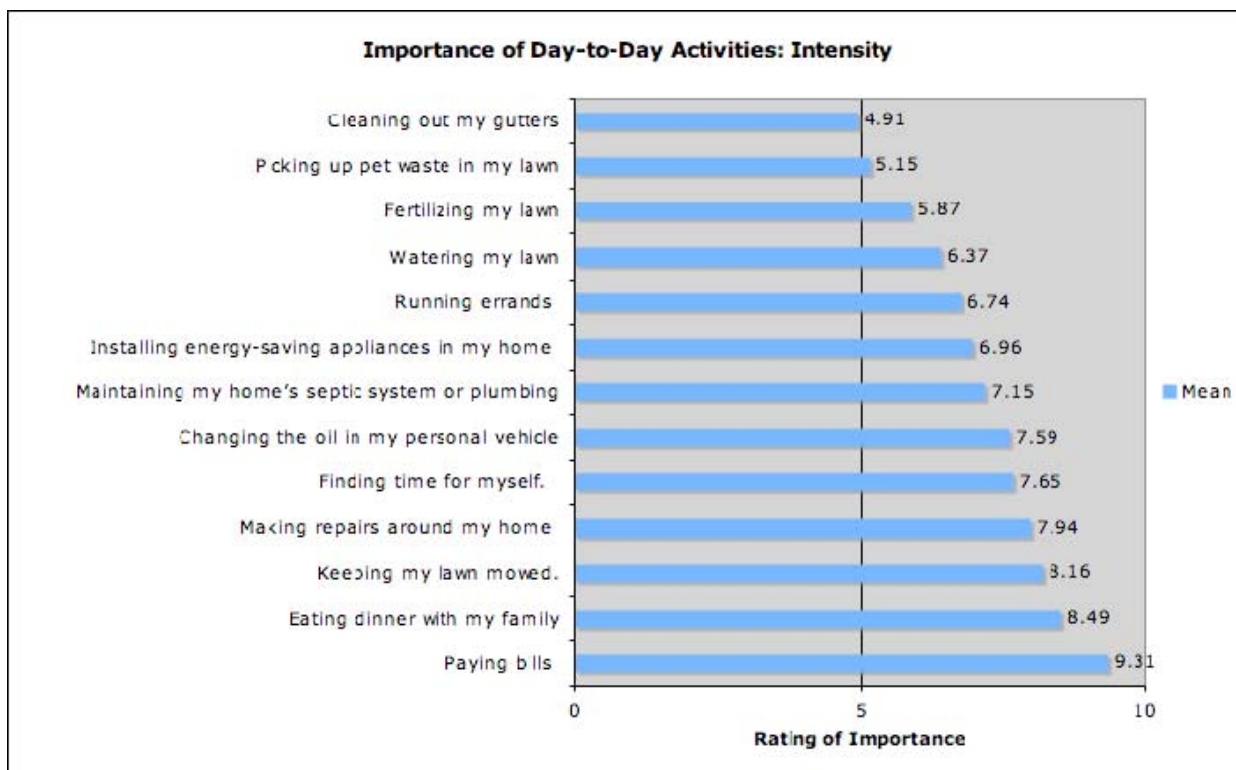


Chart 1.2

Respondents felt that nearly all the activities listed in Chart 1.2 (above) were at least somewhat important. Among the most highly important daily activities were paying bills, eating dinner with the family, keeping the lawn mowed and making repairs around their homes. One activity that the District may want to further explore is how residents are mowing their lawns. In order to be able to take appropriate measures regarding lawn care and grass blade height, it would be important to know whether residents are mowing their lawns to keep their grass very short or mowing their lawns at a high blade. The District also seeks to encourage more people to pick up their pets’ waste, one of the daily activities that respondents felt were the least important of those listed above.

### Landscaping

Participants were also asked to rate the importance of several factors related to how to landscape and generally care for their lawns. When it comes to their lawns, most residents seem to be deciding how they landscape based on how it affects them personally in terms of appearance, cost, impact on property values, etc.

Participants were asked to rate each factor on a scale from 1 to 10, based on how important each was when deciding how to landscape. A rating of 1 indicated that the factor was not important at all and a

rating of 10 indicated that the factor was extremely important in their decision-making process. The factors ranged from how their landscape would impact the environment to what their neighbors would think about it. Chart 1.3 (below) shows the percentages listed for each factor, indicating the portion of respondents who felt the factor was at least somewhat important in their decision about how to landscape. In other words, the percentage represents participants who felt the factor was a 6 or more on a scale from one to 10 of how important it was to them when deciding how to landscape.

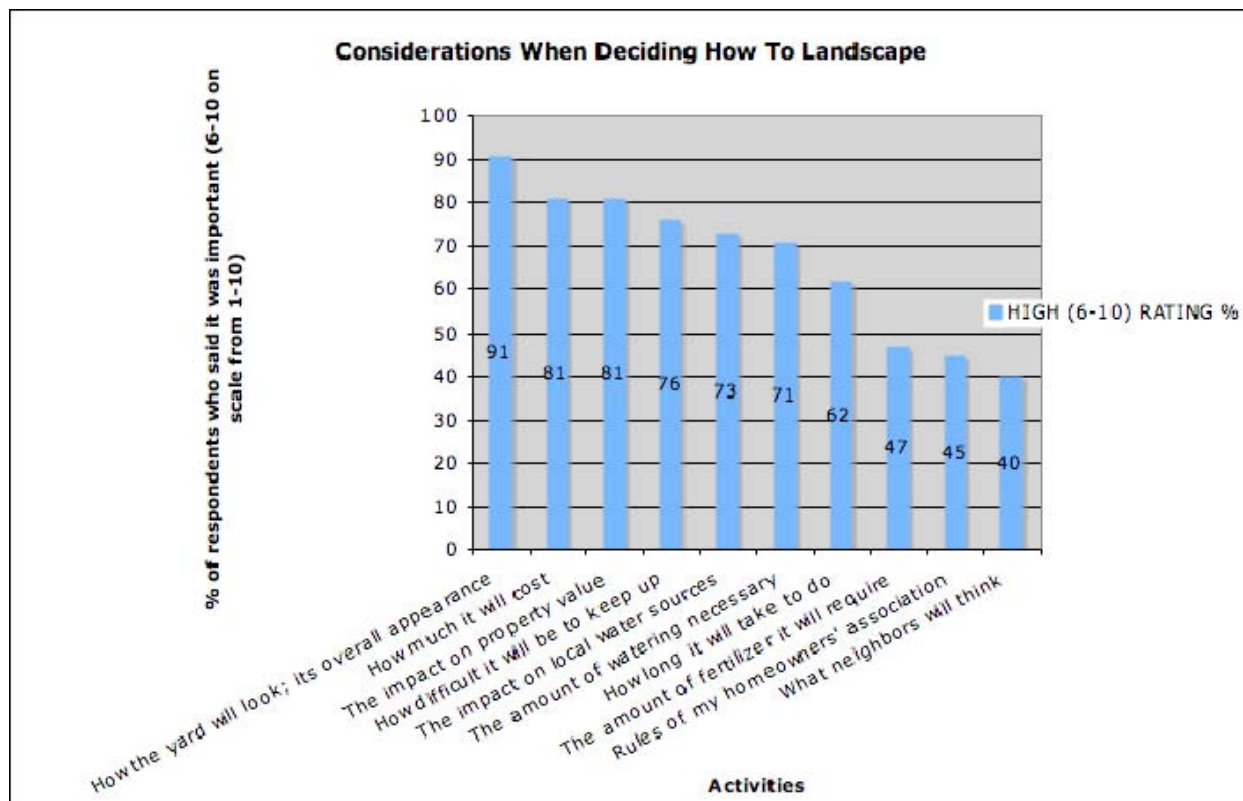


Chart 1.3

When it comes to making decisions about landscaping, the majority of respondents care most about how it affects them personally; about three-quarters are concerned about environmental impacts; and less than half are concerned about fertilizer and third party effects. The top three things respondents said were important were their yard’s overall appearance, how much it will cost and the landscape’s impact on their property value. While the effect of their landscaping on local water sources was important to three-quarters (73%) of the respondents, the appearance of their yard, the cost of landscaping, its impact on property value and how difficult it will be to keep up was important to a larger portion of the sample. Residents of the South were statistically less likely to feel that the amount of watering necessary was important when deciding how to landscape. This is useful when trying to influence how residents landscape their yards. Sending messages appealing to these values may yield more results than sending a message about fertilizer or how the landscape will affect the environment. Suggestions about specific plants and irrigation systems that require less fertilizer or less water can be presented as landscaping that will save money while promoting its environmental merits as a secondary benefit.

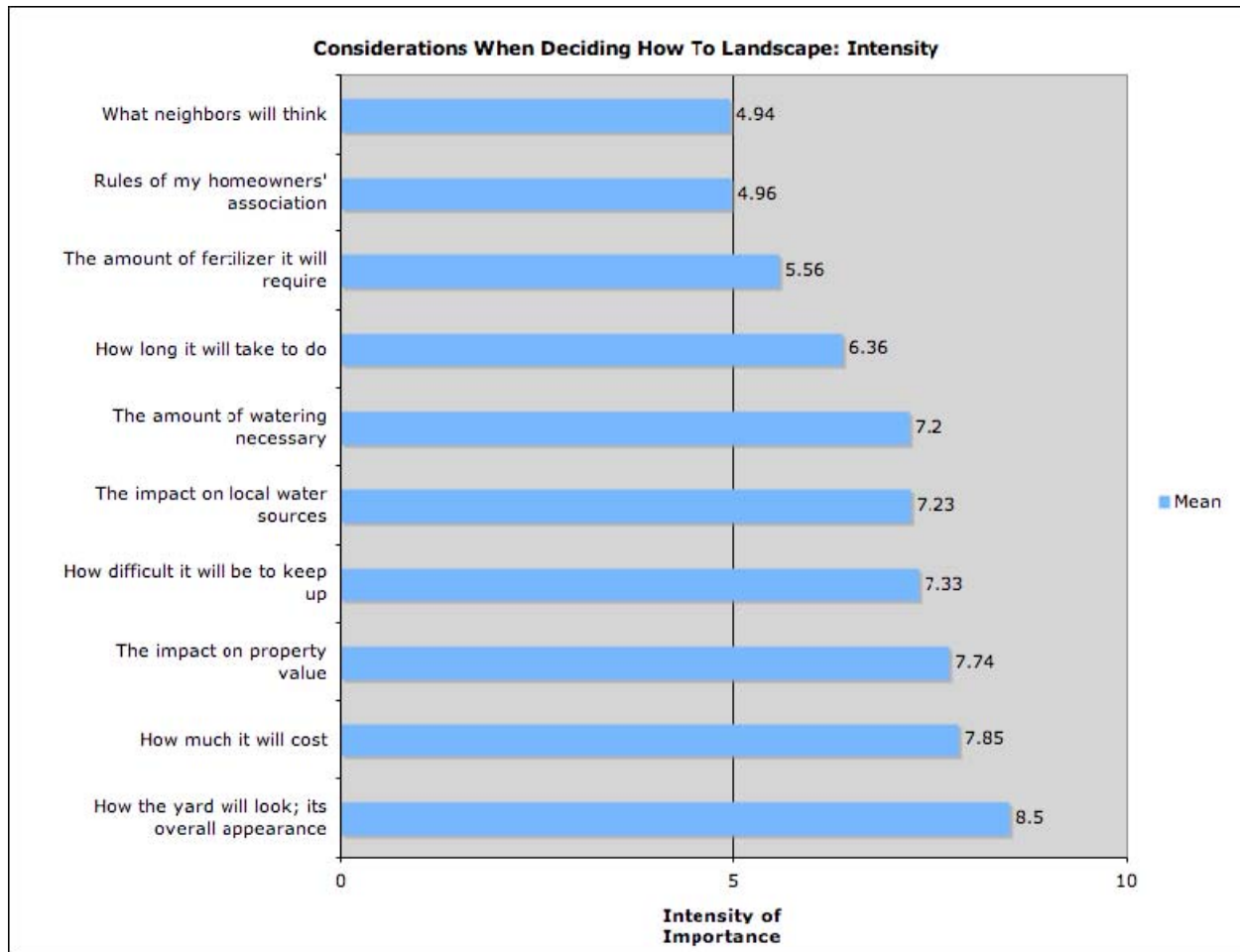


Chart 1.4

The rankings shown in Chart 1.4 (above) illustrate the same decision-making factors in order importance, from most important to least important. The mean indicates the intensity of importance. The higher the mean, the more important a factor was to respondents. Although the percentage of respondents for whom each factor was important seems to coincide with its intensity of importance, each can be valuable in different ways when developing strategies. The percentage of people who think each factor is important helps to identify what people are generally thinking about when deciding how to landscape. The mean, or intensity, helps to distinguish how valuable each factor is when making that decision. Chart 1.4 shows that the most important factors in making a decision about how to landscape are the end result – how the yard will look, how much it will cost, the impact on property value. Slightly less important than these are factors dealing with the process and upkeep – considering how difficult the landscaping will be to keep up, its impact on local water sources, the amount of watering that will be necessary and how long it will take to do. On the lower end of the spectrum, respondents felt that the amount of fertilizer required, following the rules of their homeowners’ association and what their neighbors might think were the least important of the factors listed above to consider when landscaping.

## White Paper Survey Two: General Lawn and Water Trends

Respondents widely agreed that protecting the community was extremely important. They acknowledged the importance of protecting water and choosing landscaping that helped protect local water resources. Florida-friendly landscaping is a recognizable brand. Many respondents reported using FloridaFriendlyLandscaping.com as a resource for landscaping information.

Respondents were asked to rate the importance of several community issues including both issues that were related to water and those that were not. They identified all the issues listed as important, with the least frequently identified issue being improving the quality of recycling programs at 91 percent. The comparisons of this mix of issues helps to further investigate how the importance of water-related issues measure up against other issues in the minds of these respondents. The most frequently identified issue was protecting the quality of drinking water (96%). People who reported having a rain sensor installed on their lawns were statistically more likely to feel that maintaining and increasing property values were important compared with respondents who did not have a rain sensor. Other issues that were rated in this question included protecting the water quality of lakes, rivers and streams, increasing safety from crime in neighborhoods and reducing litter and improper garbage dumping. A full list of these issues can be viewed in White Paper Survey 2 in the appendix.

### Being Florida Friendly

Two-thirds of respondents reported that their lawns were cared for by someone in the household. More than a third (41%) reported caring for their own lawn, a quarter (28%) indicated that their spouse or someone else in the home cared for their lawn. About a third (31%) reported paying a lawn service or gardener to care for their lawn. More than half (55%) said that the majority of the decisions regarding lawn care were made by them or their spouse, with 43 percent identifying themselves as the main decision maker regarding the lawn.

The District has developed a recognizable brand in Florida-friendly landscaping. Two-thirds (64%) of respondents have heard of the term and three-quarters (75%) identified FloridaFriendlyLandscaping.com as the site they would use to access information about it. Respondents were asked several questions regarding Florida-friendly landscaping, one the District's current efforts to encourage residents to care for their lawns in ways that protect water quality. Among the factors that respondents said were important in motivating them to use Florida-friendly landscaping, the ones that were most frequently identified as important were knowing it will help protect local water resources (89%), that it saved money on their water bills (85%) and finding "how-to" information in the plant sections of stores (80%). The least important factor was the recommendation of residents' homeowner associations. The District should continue to employ these motivators in their social marketing efforts to encourage Florida-friendly landscaping. The most frequently identified barriers to using Florida-friendly landscaping reported were the cost of changing their landscape (71%) and that respondents like their landscape the way it currently is (61%).

### Water

Residents know that protecting the water is important. But they are not aware of the severity of the issue. More than half (57%) of the respondents described the current water resource conditions in their area as "drier than normal." Only about a tenth (13%) indicated thinking that water resource conditions were in a drought and a third (28%) felt conditions were normal. The majority of respondents reported having a public water utility service and using drinkable water to irrigate their lawns. About two-thirds (70%) reported receiving the water they use for their lawns from a public utility while a third (29%) receive their lawn water from a well. Nearly three-quarters (73%) said the water they use for irrigation was drinkable while nearly a fifth (18%) said they used reclaimed water for irrigation. Perhaps methods of saving water while combating mosquito breeding can be promoted in order to get more residents to use reclaimed water on their lawns.

Respondents were asked to think about water usage as well. They were given a list of activities that may use water and were asked to rate each activity according to how much water they thought each used. A rating of one indicated the activity used a minimal amount of water while a rating of 10 indicated the activity used a considerable amount of water. These activities are shown in Chart 1.5 and discussed below.

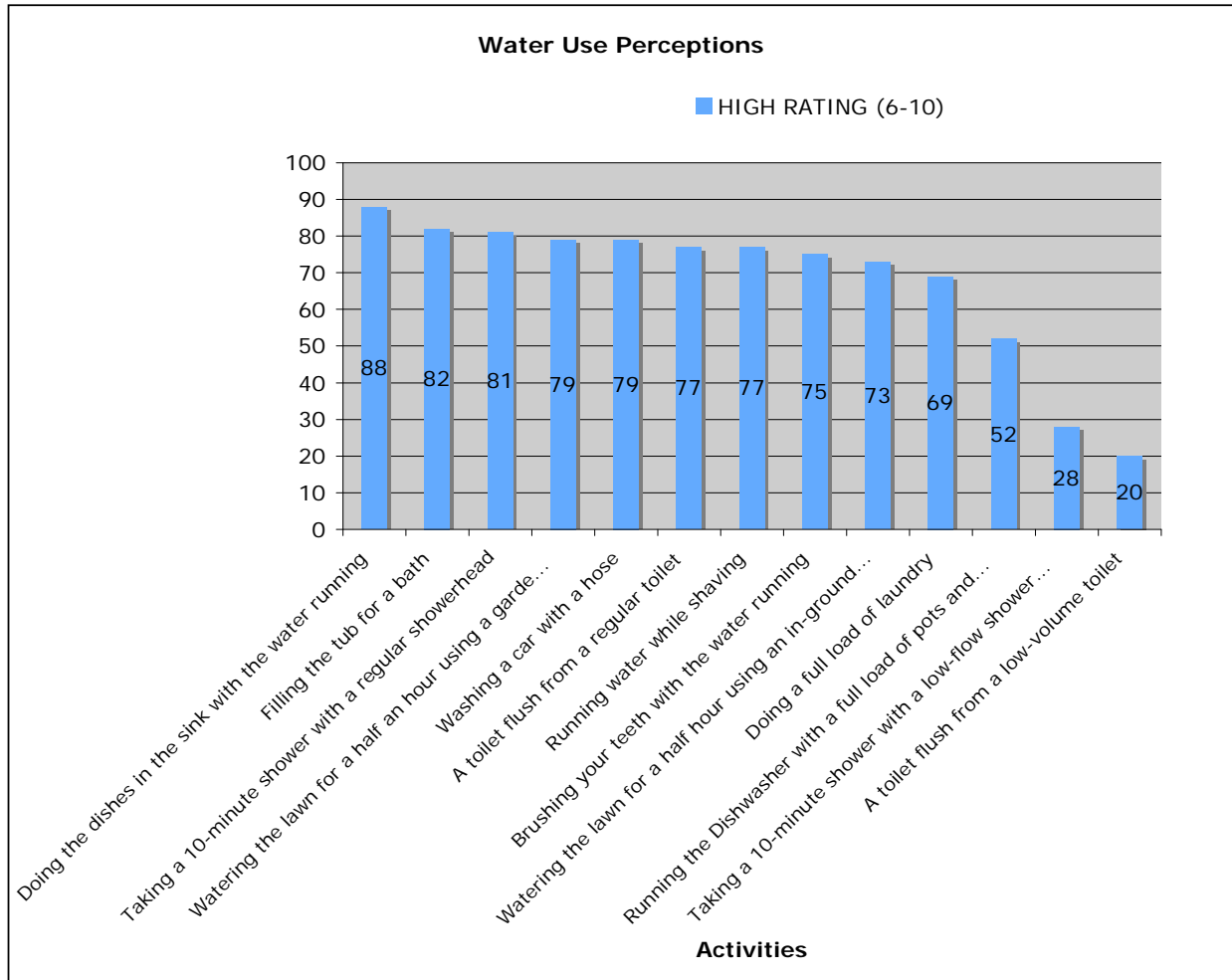


Chart 1.5

There were some statistically significant differences found concerning these water-consuming activities. Respondents who reported having a downspout were statistically less likely to believe that doing a full load of laundry used a considerable amount of water. This group was also more likely to believe that a toilet flush from a low volume toilet used a minimal amount of water. Respondents without downspouts and respondents without rain sensors were also less likely to feel that running the dishwasher with a full load of pots and pans used a considerable amount of water. Those who reported having a rain sensor installed on their lawn were more likely to feel that watering the lawn for a half hour using an in-ground irrigation system used a considerable amount of water. Respondents who owned a lawn mower tended to feel that filling the tub for a bath used a considerable amount of water.

### Day-To-Day Activities

Respondents were asked to think about several day-to-day activities that they and their neighbors may regularly perform. They were asked to rate the importance of each activity on a scale from one to 10 with one meaning that the activity was not at all important to them personally and 10 meaning that it was extremely important. These included activities regarding water and lawns as well as unrelated, every day activities. Respondents were asked to rate these activities in order to investigate how the water and lawn-related activities fit into their every day lives among other activities. Chart 1.5 (below) shows how these everyday activities compared in importance among respondents.

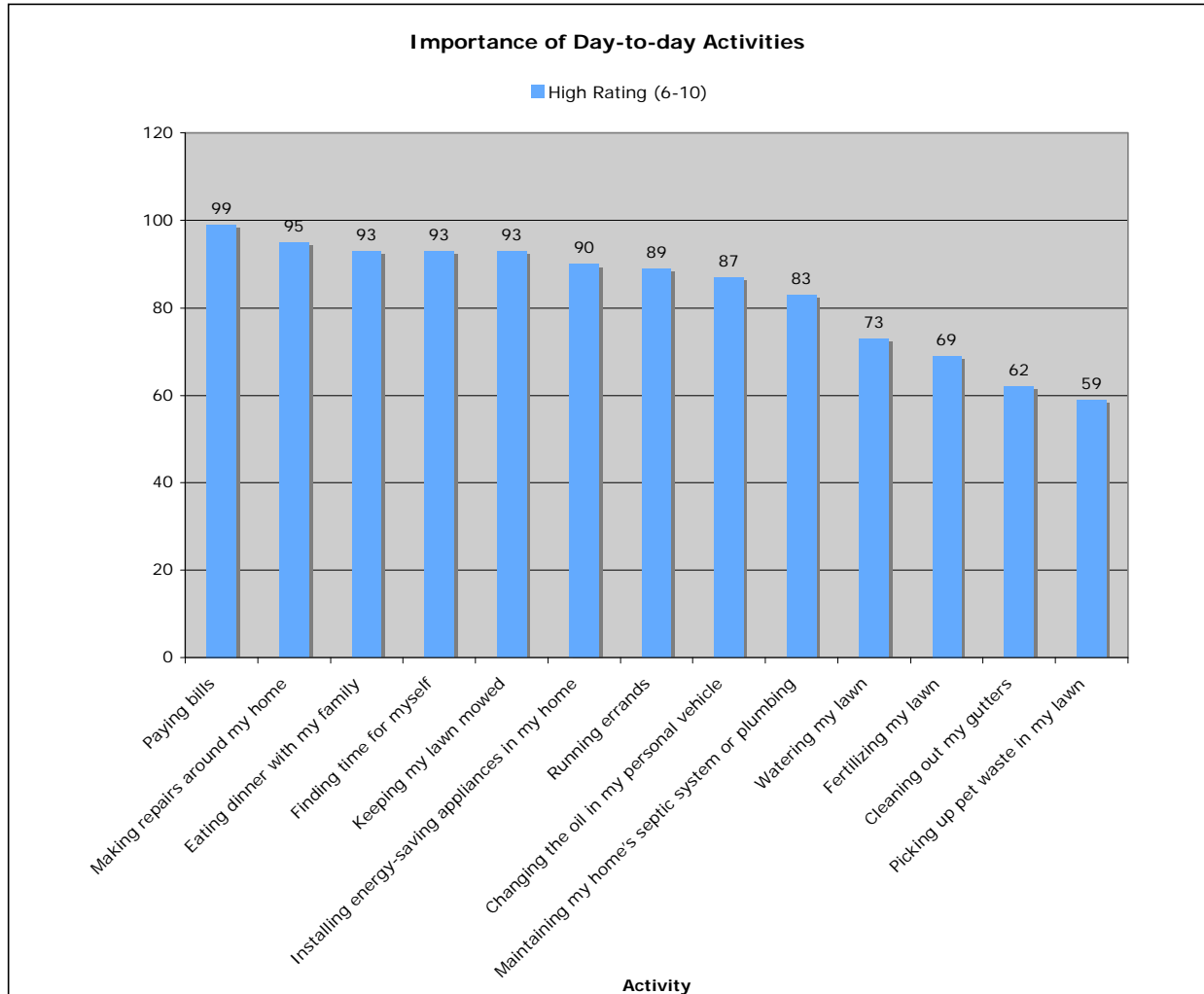


Chart 1.5

Taking care of the home was highly important to this group. Nearly all (93%) of respondents felt that eating dinner with their families was important, however, they indicated that paying bills (99%) and making repairs around the home (95%) were important even more often. Eating dinner with the family was identified as important equally as often as was finding time for themselves and mowing the lawn. What is important to note is that respondents feel that lawn care activities are just as important.

## **White Paper Survey Three: General Lawn Care Trends**

Respondents value water quality and availability. In general, they recognize that rainfall conditions are not normal and they are concerned about water shortages. Compared with past years, however, respondents are reporting less concern. This may be due to other issues respondents feel are impacting them more directly, such as a worsened economy. Although the level of concern has decreased over the past few years, it is clear that respondents care about the quality of their water. People are recognizing that conditions are drier than normal. About a third (28%) described the current conditions in their area as in a drought, while half (52%) felt that conditions were drier than normal. This is consistent with the findings in the second White Paper Survey.

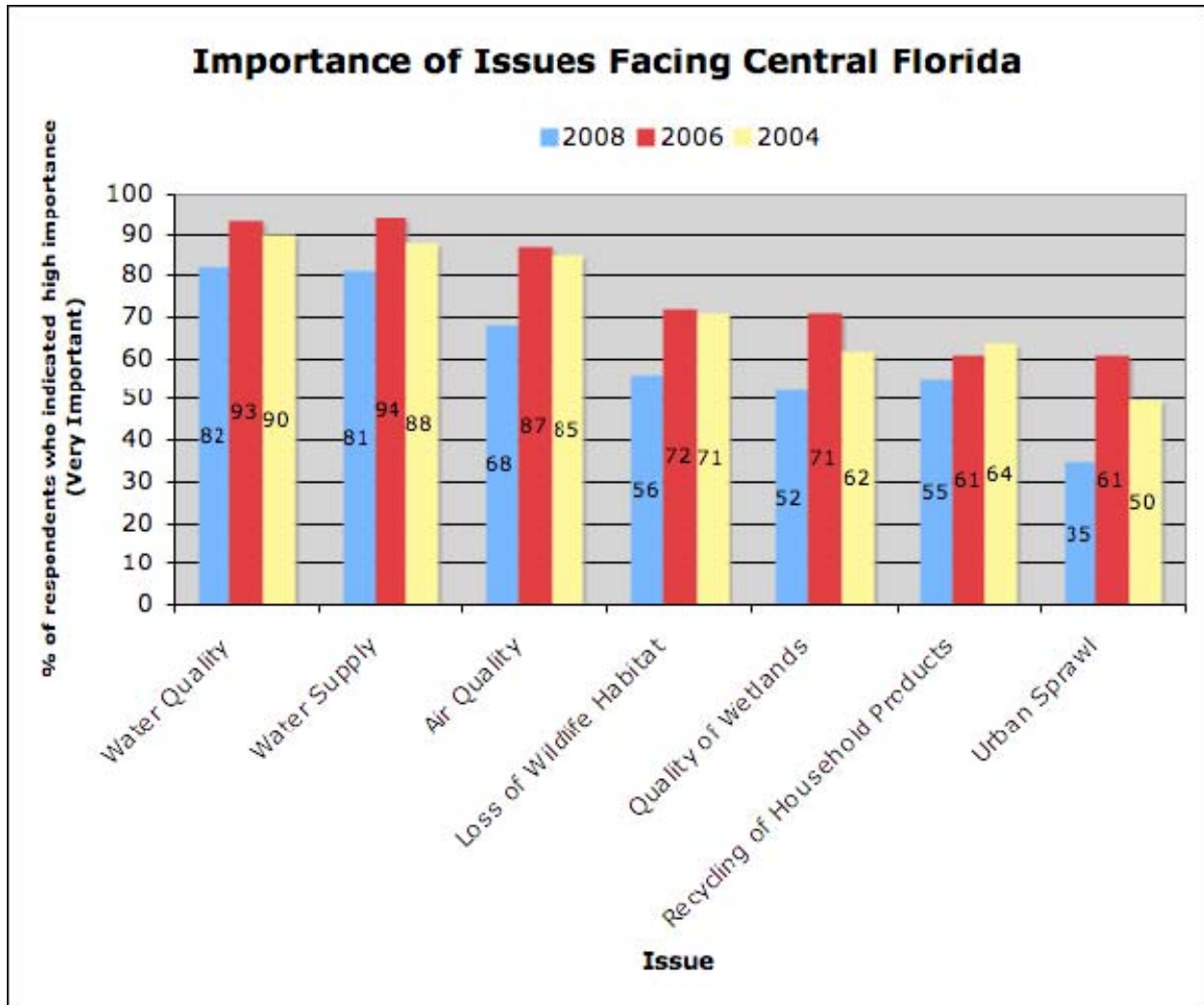
Respondents were asked about things that might encourage them to save more water. Among the most frequently identified factors were a declared drought (93%) or water shortage (90%), fear of running out of water (92%), and the cost of water (90%). Respondents in all three regions of the District agreed that they are supportive of government actions such as tightened water restrictions as a means of addressing a water shortage problem. However, respondents in the North region (North mean = 7.16) were statistically less likely to agree compared with respondents from the other regions.

The majority of respondents (85%) reported that minor repairs around the home were performed by them or someone else in the home, with more than two-thirds (42%) indicating that they performed these repairs themselves.

### **Comparisons with Past Years**

Nearly all respondents (92%) reported some level of concern about the water resources in Central Florida with half (50%) indicating they were very concerned. There were no statistically significant differences found between the regions of the District. Although there is a great deal of concern about water resources, respondents reported less concern compared with past years. In 2006, more than two-thirds (69%) of respondents reported feeling very concerned and in 2004 two-thirds (64%) reported feeling the same way.





The fact that respondents considered water quality and water supply important most often certainly will reduce some of the pressure to educate residents about water resource conditions and the need to protect these resources. The District can now focus on developing strategic messaging to influence serious behavior change to achieve their social marketing goals.

### Day-To-Day Activities

Respondents were asked to rate activities that they may have performed on a scale from 1 to 10, based on how important the activity is to them. A rating of 1 indicated that the activity is not important, and a rating of 10 indicated that the activity is extremely important. A rating of 6 or higher is considered to be an activity that the respondent considers important to accomplish. Chart 3.3 (below) shows the percentages listed for each statement, indicating the portion of respondents who rate the statement a 6 or higher.

Consistent with results gathered in the other two white paper surveys, respondents more frequently indicated that paying their bills was more important than other day-to-day activities. This may be caused by the economic conditions and heightened concern about making ends meet. Among the activities that were rated as important, the lowest on the scale were fertilizing the lawn, maintaining the home's septic system and cleaning out the gutters.

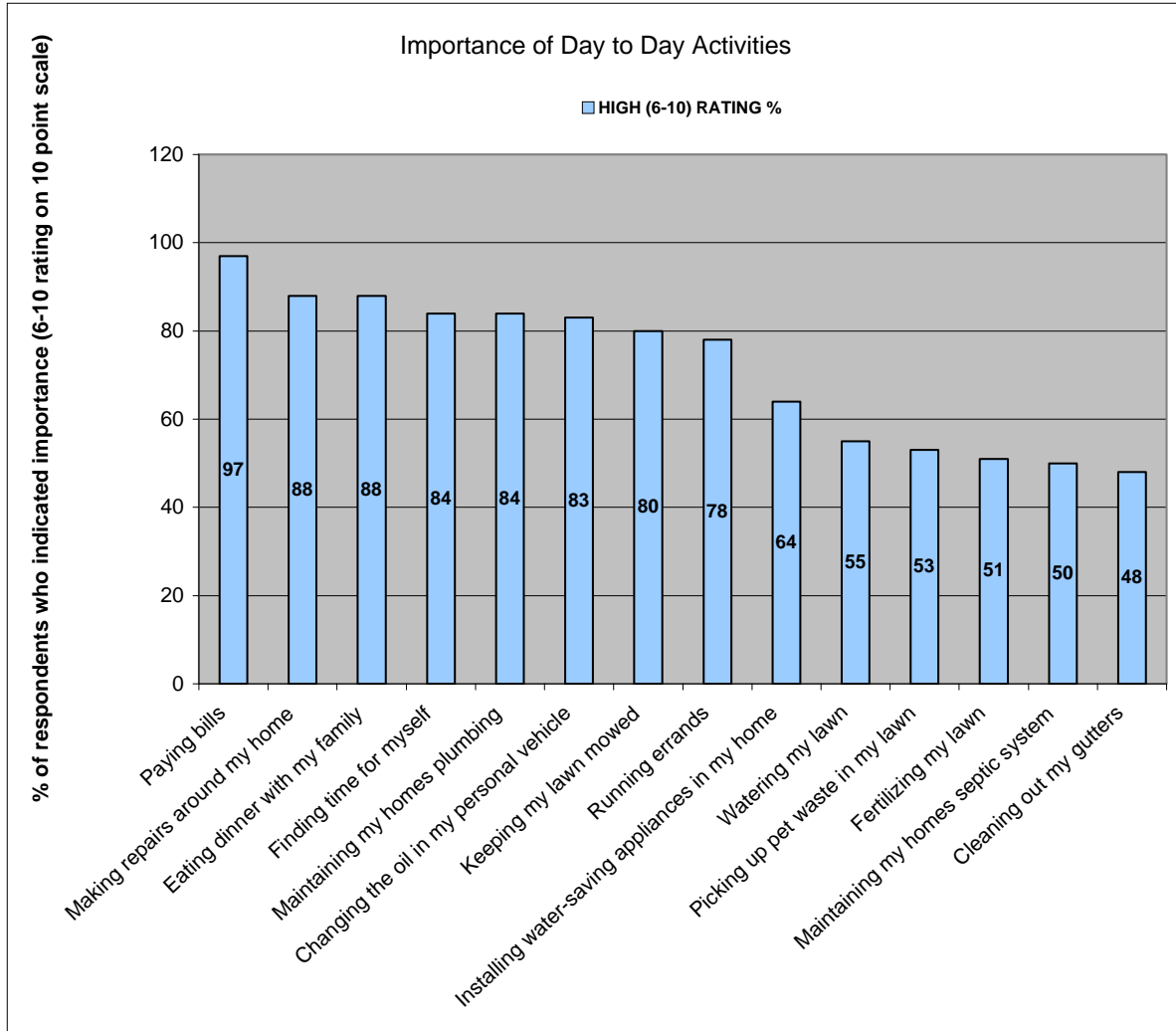


Chart 3.5

Statistical differences were found between regions regarding these day-to-day activities. Those living in the North region consider keeping their lawn mowed, maintaining their home's septic system, fertilizing their lawn, watering their lawn and installing water-saving appliances to be of a higher importance. Respondents living in the South region showed a difference in their higher rating of importance for maintaining their home's plumbing, and cleaning out their gutters.

## Section 2: Fertilizer

The impact of fertilizer on water sources does not greatly influencing how residents landscape in general. But it does seem to influence how they fertilize. Respondents in this survey seem to have been making the connection between fertilizer use and environmental impacts. They want to use fertilizer in a way that lessens the impact, but perhaps do not fully understand the current impact of their fertilizer use.

Respondents reported that they try to be responsible in their fertilizer use. Chart 2.1 (below) shows that a large majority (81%) said that they would change to another fertilizer if they learned the fertilizer they currently used was harmful to the environment. And 80% said they would change how often they apply fertilizer if they learned how much they apply was harming the environment. They also agreed that keeping fertilizer off hardtop surfaces was important (62%). About two-thirds (63%) of respondents are using more than one type of fertilizer. A little more than a third (40%) of respondents agreed that as long as their lawn looks good, they do not care how fertilizer works. When it comes to fertilizer use, residents may be swayed by messages about how to make their fertilizer use less harmful to the environment. The sample was evenly divided on whether or not the way they personally fertilized affected the environment in a substantial way.

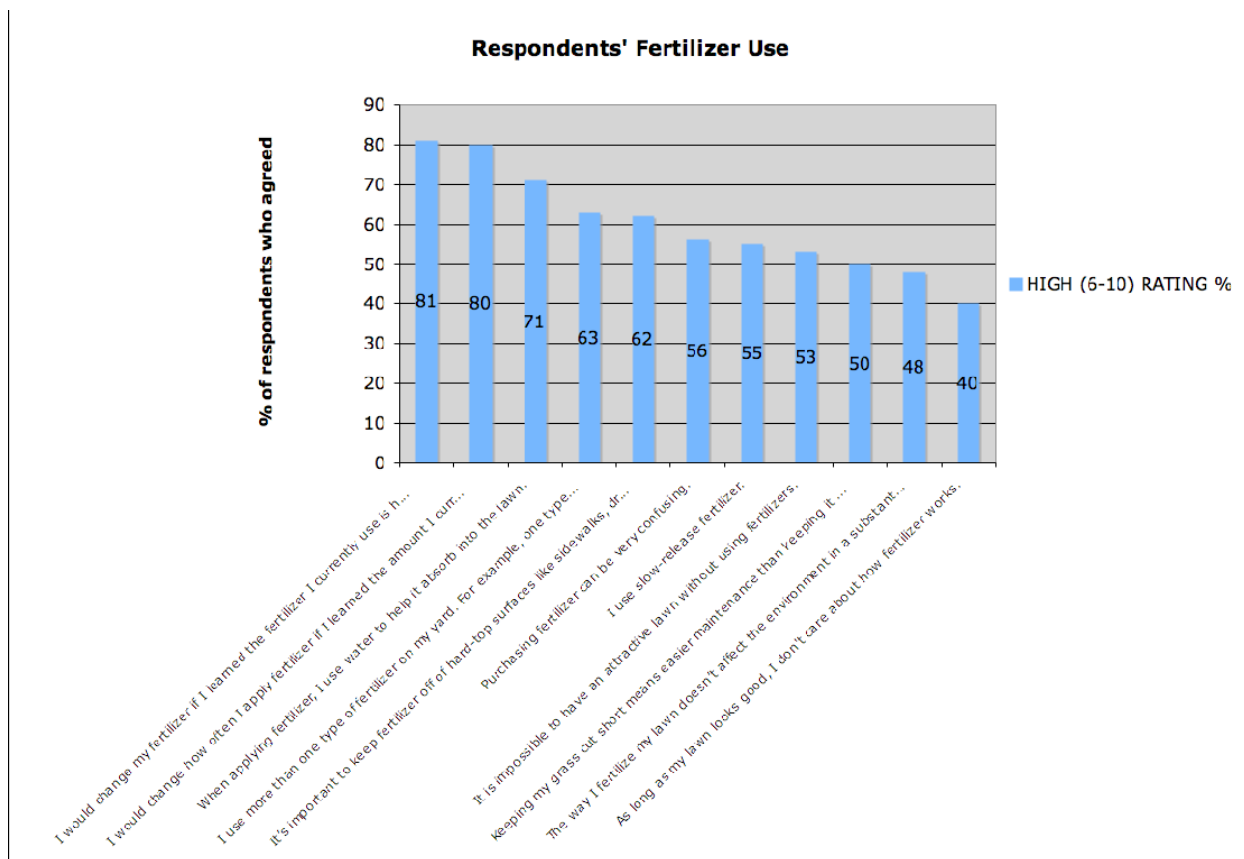


Chart 2.1

While most respondents were able to identify compost (78%), manure (74%) and grass clippings (79%) as non-chemical fertilizers, only about a tenth (9%) indicated slow-release fertilizer as a non-chemical fertilizer. Slightly more than half (55%) of the sample reported using slow-release fertilizer. Residents of the Central region were statistically more likely to use slow-release fertilizer than residents of the North and South regions of the District.

### When To Fertilize

According to the results of this white paper survey, the highest concentration of fertilizing occurs in the spring months (57%) – mostly during March and April – and in the fall (55%) – mostly during September and October (Chart 2.2). These may be good times to approach audiences with specific messages about fertilizer regarding resources for proper use such as consulting a master gardener or even how to determine if they should apply fertilizer at all. Residents may be more open to receiving strategically designed messages during these times of the year.

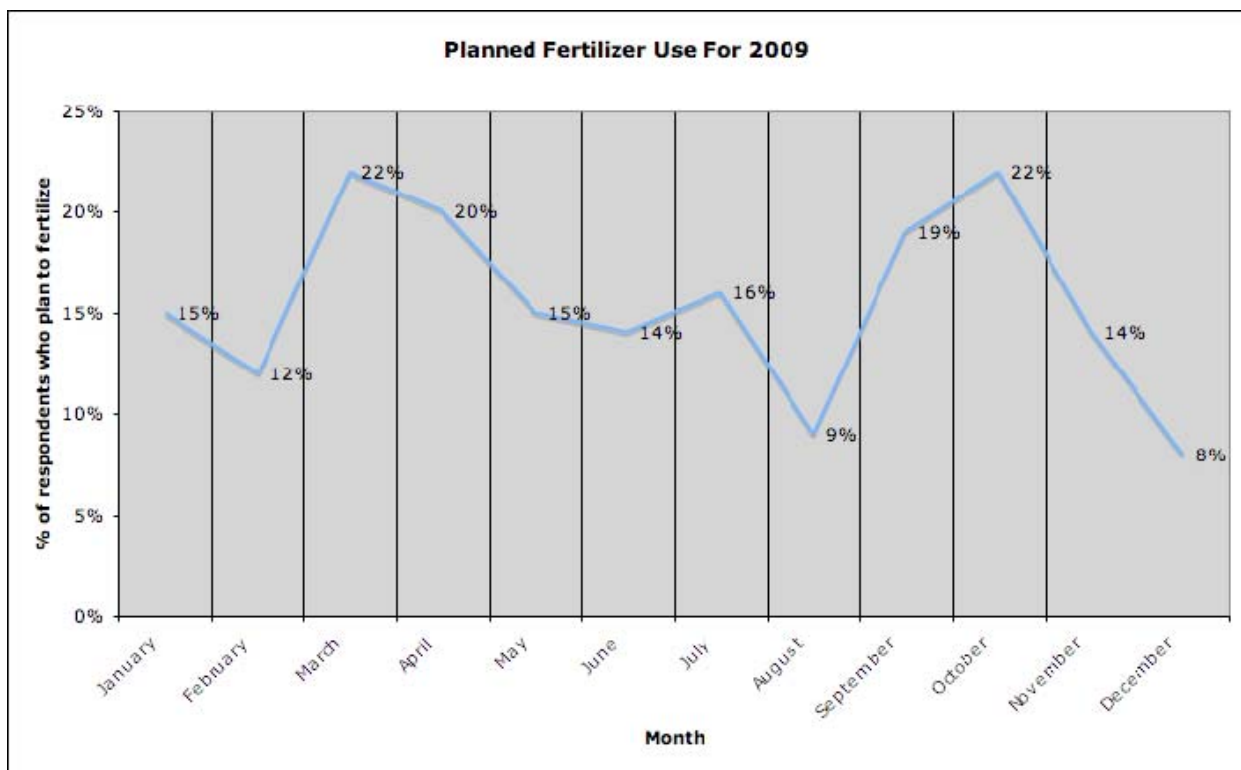


Chart 2.2

About a third of residents (30%) are not certain about which months they will fertilize their lawns. This lack of certainty may be partly due to a lack of planning. However, a cross tabulation that examines who cares for the lawn shows that the majority (80%) of those who are not sure when they will be applying fertilizer are not the person who cares for the lawn – their lawn is cared for by their spouse, someone else in the home or a lawn service or gardener. The lack of knowledge about when they fertilize may simply be because they are not making the decisions about lawn care in their household. In this case, respondents who answered “other” should not be targeted with messages about how to fertilize but may benefit from messages regarding other behaviors such as choosing a lawn service or gardener that adheres to appropriate fertilizing guidelines.

Nearly half (41%) of respondents reported deciding when to fertilize their lawns based on the condition of the lawn. The District could disseminate information about what a healthy lawn should look like in order to keep residents from fertilizing when their lawns do not really need it. A third of respondents fertilize a specific time of the year. From this question alone, it is not clear what specific time respondents were

referring to. Regarding the amount of fertilizer to apply to their lawns, about two-thirds (64%) reported using the directions on the package. The majority of responses who answered “other” when asked how they decide the amount of fertilizer to apply indicated that their lawn service makes the decision. While some residents are not the direct decision-makers about how to care for their lawns, they still indicated being a decision-maker in the household and responsible for paying the lawn service or gardener. They might be reached with messages about ensuring that the person who cares for the lawn does so appropriately.

## Section 3: Pesticides

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Consistent with the results found in Section 1, respondents are primarily concerned with having nice lawns. Regarding pesticides, a large majority agreed that having an attractive (79%) and healthy lawn (78%) was important to them. Recognizing that many residents prioritize how their lawns will look when they are deciding how to landscape and apply pesticides is important to note when developing strategies to target behavioral goals. It seems that getting rid of pests is important to residents of these areas and that they will continue to use pesticides regardless of being aware of the risks. The District may want to consider developing messages about safe pesticide use such as keeping pesticides clear of hardtop surfaces and away from natural bodies of water. Helping residents to identify and encouraging them to seek effective non-chemical alternatives may aid the District in reaching their behavioral goals.

### Risks

It is widely understood that pesticide use is potentially harmful to both people and the environment. Participants showed an understanding that pesticides possibly pose health risks in general and specifically to children’s health. The majority (83%) said they agreed that using too much pesticide is harmful to the environment while only a tenth said that pesticides have no effect on the environment. It is not clear at this point how much respondents considered “too much” pesticide as half (54%) of the sample reported using store-bought pesticides.

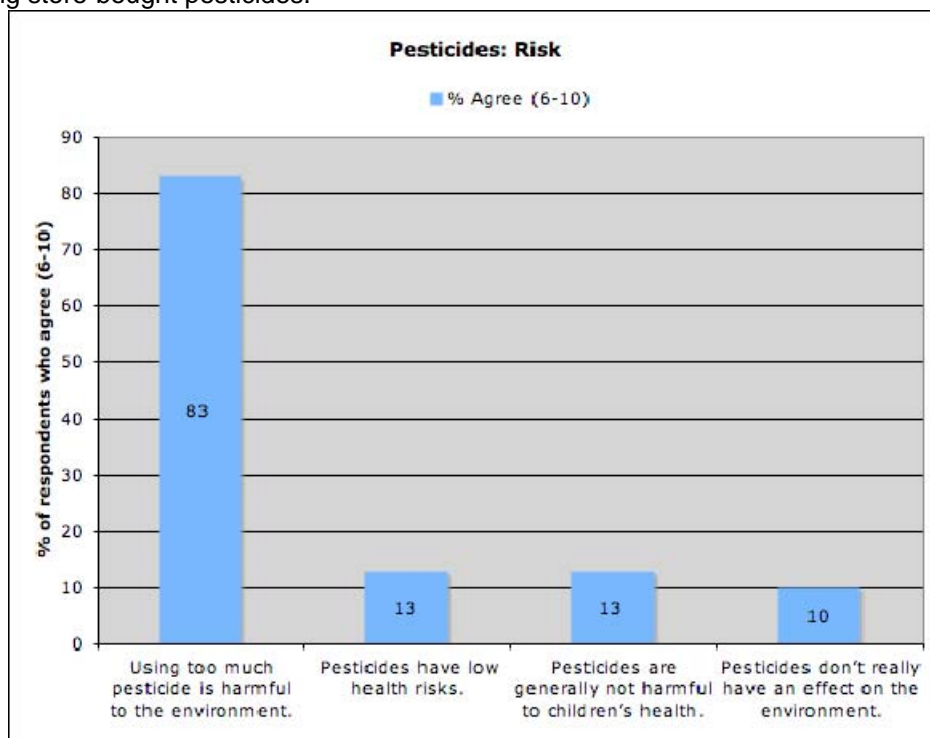


Chart 3.1

Respondents were asked to indicate their agreement with several statements concerning pesticides. They rated their agreement on a scale from 1 to 10 with 1 meaning strongly disagree and 10 meaning strongly agree. According to the results of the survey in Chart 3.1 (above), respondents understand that pesticides pose risks to environment and to the health of people.

## Expectations

While they do understand the risks, people simply want to get rid of pests in their lawns. At least half of respondents use pesticides. Specifically, 54% reported using store-bought pesticides. Most (78%) said that they expect to see results in their lawns from using pesticide within a week or less. Of these, only a small percentage (4%) said they expected to see results immediately. Nearly half (43%) said in a few days and about a third (31%) indicated they expected to see results within the full week. Only 6% said they expected to see results within a month or more. Of the small portion (3%) of people who responded “other,” the majority indicated that they do not use pesticide.

Although the majority of respondents expect to see results from pesticides within a week, nearly half of the respondents (46%) said they would wait at least two weeks before reapplying if it did not yield the desirable result. A quarter of respondents said that they would reapply if they failed to see results within two weeks; a third (32%) said that they would reapply in a month and 15% would reapply in a few months. The majority of people who answered “other” stated that they would reapply depending on what the directions said or that they do not use pesticides.

The following statistical differences were found when exploring the issue of reapplying pesticide after desirable results were not achieved after the first application:

- Respondents who consider fertilizing their lawn important are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. two weeks)
- Respondents who consider watering their lawn important are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. one month)
- When deciding how to landscape their lawn, respondents who consider the amount of watering that will be necessary important are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. in a week)
- Respondents who agreed to change their current fertilizer if they learned it was harmful to the environment are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. two weeks)
- Respondents who agreed with the statement “keeping my lawn healthy is important to me” are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. one month)
- Respondents who agreed with the statement “keeping my lawn attractive is important to me,” are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. in a few days)
- Respondents who agreed with the statement “I do not know of any bugs that improve the health of my yard or garden,” are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. a few months)
- Respondents who agreed with the statement “when I use pesticides, I only spot treat where pesticides are needed” are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. in a few days)
- Respondents who agreed with the statement “since pesticides wash off when it rains, it is important to apply often,” are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. one month)
- Respondents who agreed with the statement “when I see any bugs in my yard, I apply pesticide” are more likely to reapply pesticides if they do not see results in a given amount of time. (e.g. in a week)

## Non-chemical Pesticides

Nearly half (47%) of respondents do not know whether or not non-chemical organic pesticides are available. This may be because when shopping for pesticides, people are not differentiating between chemical or non-chemical pesticides. Their main objective may be to simply get rid of the pests. Respondents were also asked to give an example of a non-chemical pesticide. Most said they did not know the name of a non-chemical pesticide, but some of the types of non-chemical pesticides they mentioned were dish soap with water, beer, Bayer, compost, lady bugs, manure, Ortho and vinegar.

## Section 4: Pet Waste

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Note: This section discusses only the responses of dog owners – those who did not indicate owning a dog did not participate in this section. Since the sample was evenly split between people who own a dog and people who do not, only half of the respondents participated in this section of the survey.

### Dog Owners

Dog owners are not a homogenous group. The results of this survey shows that they vary in opinion about many of the topics explored in this survey. There were very few areas discussed in this survey that dog owners widely agreed upon – that picking up pet waste is a necessity (73%), that proper pet waste disposal is not a problem in their community (75%) and that the presence of pet waste does not hinder them from enjoying the outdoors (72%). Perhaps dog owners accept pet waste as a normal condition for the outdoors, which may make the latter two highly biased.

In many areas, particularly when asked to indicate their opinions on statements regarding pet waste, they were fairly evenly distributed between agreement and disagreement concerning these statements. More than a third (40%) of dog owners said that they walk their dog in a public area at least once a week, with 22% indicating walking their dog in a public area every day. Of all the dog owners in the sample, about half (55%), said that they did not walk their dog in a public area on a regular basis.

### Pet Waste Disposal

Dog owners agreed most about the necessity of disposing of pet waste, although their method of ridding themselves of the waste differs. Only about a tenth (14%) said that picking up pet waste is the city's responsibility, showing that overall pet owners accept responsibility for removing their pets' waste. About three-quarters (73%) agreed that disposing of their pet's waste was an undesirable but necessary task. About two-thirds (67%) said they carry plastic bags to pick up their pet's waste when going for walks.

The majority of dog owners are split between throwing their pet's waste in the trash and leaving it on the grass. Almost half (43%) said they throw their dog's waste in the trash while a third (32%) said they leave it on the grass. Although it may seem that people who do not walk their dog in a public area would tend to leave their dog's waste on the grass more frequently, there was no statistical difference found between those who walk their dogs regularly in public areas and those who do not, as 40% of dog owners who reported walking their dog in a public area at least once a week also reported leaving their pet's waste in the grass. A tenth said they hose it into the ground. The remaining 13% was evenly distributed between burying it underground, flushing it down the toilet, putting it in a home composting pile or in the flower beds. More than two-thirds agreed that they were responsible for pet waste on their property regardless of whose pet it came from (69%). They do feel, however, that the way they dispose of their pet's waste is their own business. A more in-depth qualitative study of dog owners may help to identify and profile different types of dog owners to understand the nuances about their beliefs regarding pet waste. Focus groups or in-depth interviews may also aid the District in understanding dog owners' biases.

### General Public Opinions About Pet Waste

All respondents, regardless of pet ownership, were asked to rate their agreement or disagreement with statements concerning the risks and benefits posed by pet waste. They were asked to rate their level of agreement on a scale from 1 to 10 with 1 meaning "strongly disagree" and 10 meaning "strongly agree." Nearly half felt that pet waste can serve as fertilizer (47%) and that leaving dog waste on the ground was better for the environment compared to putting it in a plastic bag, which may end up in a landfill (43%). Slightly less than half (46%) felt that pet waste was a health hazard to humans. They were also fairly evenly split in thinking that pet waste left on the ground would eventually end up in a body of water (43%) and that pet waste was more of a health issue than an environmental issue (41%).



Chart 4.1 (below) shows the differences in opinion between dog owners and respondents who reported not owning a dog. It is important to note that although the percentages of dog owners and non-owners reflect important differences in opinions, not all differences are statistically significant. In other words, differences may be attributed to factors other than dog ownership. Statistically significant differences are discussed below.

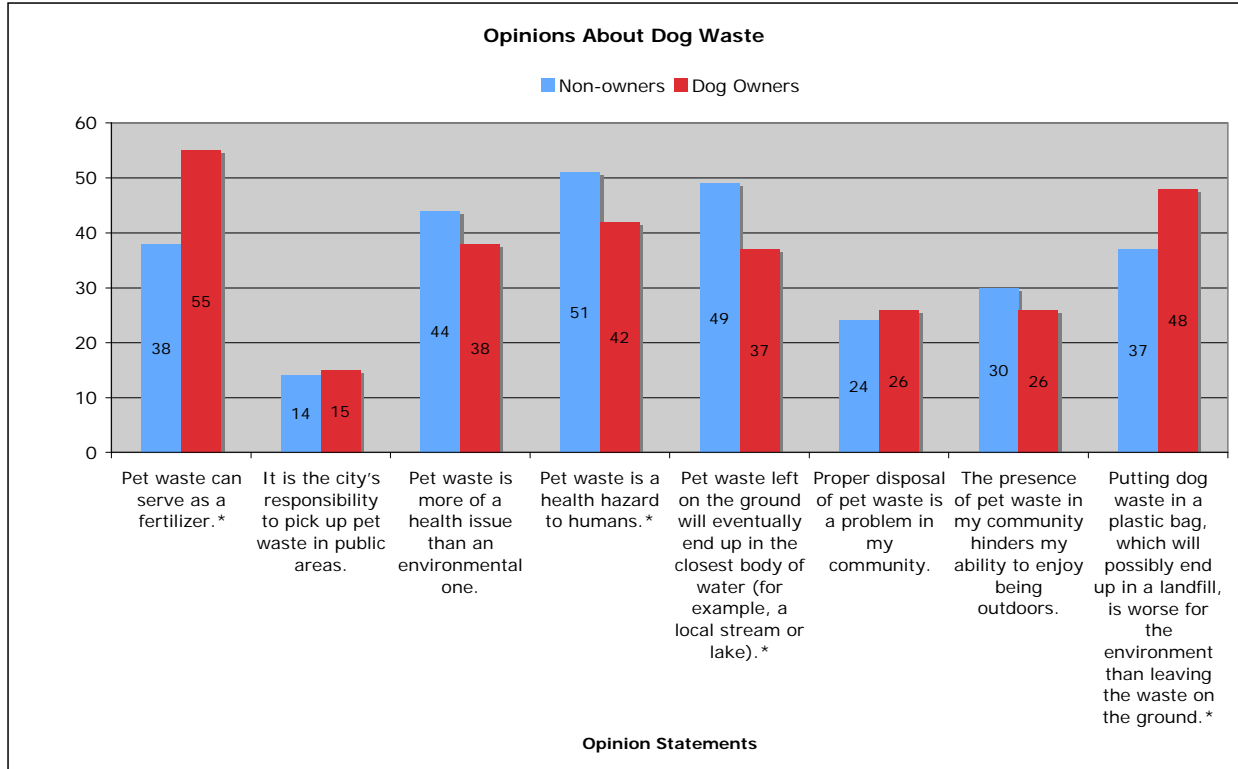


Chart 4.1 \*Statistically Significant Difference

There were some differences between dog owners and non-owners in their opinions about pet waste. Dog non-owners were statistically more likely to agree that pet waste is a health hazard to humans and that pet waste left on the ground will eventually end up in the closest body of water. Respondents who indicated they owned a dog were statistically more likely to agree that pet waste can serve as fertilizer and that putting dog waste in a plastic bag, which will possibly end up in a landfill, is worse for the environment than leaving it on the ground. Dog owners' attitudes toward the benefits of not picking up their dog's waste may present a problem to the District in efforts to increase pet owners' proper disposal of their dogs' waste. Pet owners did not feel that proper pet waste disposal was a problem in their communities. Perhaps a messaging effort redefining norms about pet waste would cause pet owners to change their attitudes toward pet waste.

## Section 5: Rain Sensor Installation

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People who have rain sensors are unique. They are water-conscious and will go the “extra mile” when it comes to saving water. It was widely recognized among participants in this survey, regardless of having a rain sensor or not, that water is a limited resource and that Floridians need to be prudent about watering their lawns appropriately. People with rain sensors tend to worry about their water usage and take measures to reduce their water usage. Regarding water, this group is statistically different compared to others. A third of the sample indicated having a rain sensor installed in their lawn. People living in the Central region of the District were the most likely to have a rain sensor installed while respondents living in the North region were much less likely than the other two regions to have a rain sensor installed. People with rain sensors are statistically more likely to know others who have rain sensors. The importance of water conservation is more of a norm to people with rain sensors installed on their home. According to the results of this survey, it seems that more people would be interested in installing a rain sensor after learning more about them. This group may even be able to serve as an ally to the District in helping community members understand how to install and use rain sensors.

### Decreasing Water Use

A positive sign that the public is responding to messages from the District and other media is that the majority of people are recognizing a need for decreased water usage. Most (71%) disagreed with the statement “you can’t water lawns too much in Florida”, meaning that Floridians should be more conscious of watering their lawns using the right amount of water. Nearly everyone (92%) disagreed with the statement “water is an abundant resource, there is no need to reduce our use of it.” Most people (75%) said their household water use was concentrated more indoors than outdoors. People with rain sensors, however, indicated using more water outdoors than indoors. This was also a statistical difference.

Three-quarters (75%) of respondents said that they would turn their irrigation system off if there were rain in the forecast, even on their watering day. People with a rain sensor were more likely to disagree, possibly because the rain sensor will automatically do this for them. Although most people (86%) said that they would not water their lawn on their designated watering day if there were a decent rain, respondents with a rain sensor were more likely to feel this way.

Residents living within the District know that water is becoming scarcer and they know it is important to find ways to use less. Only about a third of the total sample (34%) admitted that their household uses too much water. They are also worried, however, about saving money on their utilities bills. Almost everyone (93%) said they looked for ways to decrease the cost of their home’s utilities bills every month. People who have rain sensors were more likely to agree that they look for ways to decrease their utilities spending. Three-quarters of respondents said they compare their water bills every month to monitor their household water use, and people with rain sensors were statistically more likely to do so.

### Lawn Care

People with rain sensors were also more likely to be water-conscious in their lawn care. Rain sensor owners tended to consider how much watering their lawn will need when they decide how to landscape and research how often they should water their lawns more often than people without rain sensors. In general, 71% of respondents agreed they how much watering their lawn would need when deciding how to landscape. Most (78%) of the residents with rain sensors said they researched how often they should water their lawns while only about half (55%) of those who do not have rain sensors did so.

## **Rain Sensors**

People who have rain sensors are concerned about using less water. Much of the sample (62%) said that their neighbors care about conserving water but people with rain sensors were statistically more likely to agree that their neighbors cared about conserving water. Of those who said they have a rain sensor, two-thirds said that they often check to make sure their rain sensor is properly working, three-quarters said they shut off their sprinkler system with it rains and nearly all (83%) said that they know their sprinkler system shuts off when it rains. More than a third (39%) of respondents said they knew a lot about rain sensors before taking the survey. Intuitively, respondents who reported having a rain sensor were more likely to agree.

People who did not have a rain sensor installed at the time they participated in this survey seem interested in its benefits. Of the people who do not currently have a rain sensor, nearly half (45%) said they were interested in installing rain sensors. About two-thirds (67%) said that installing a rain sensor seemed easy; although half (45%) said they would need to hire someone to install it in their home. Two-thirds (64%) said they would install a rain sensor if they received a rebate for doing so. After finding out that a rain sensor would cost between \$30 and \$50, 58% said they would still be interested in installing a rain sensor.

There is an opportunity here to increase rain sensor use. The District may want to develop a program to offer rebates or help with installation to people who want to install rain sensors in their yards. Maybe a program that gives good lawn stewards bragging rights as a status.

## Section 6: Lawn Mowers – Raising Blade Height

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Note: The majority of this section discusses only the responses of owners of lawn mowers – those who did not indicate owning a lawn mower did not participate in some of the questions of this section. Two-thirds (74%) of the sample indicating owning a lawn mower.

Residents from the South portion of the District were statistically less likely to own a lawnmower than residents of the other areas of the District. Knowledge about the lawnmower itself is not a barrier since nearly all respondents (83%) who had lawn mowers said changing the height of the blades was easy. Most (82%) even agreed that raising their blade height on their lawnmower would keep their grass healthier. Nearly all (81%) said that they leave their grass clippings on the yard when they cut their grass. And almost two-thirds rated that statement between 8 and a 10 on a scale from 1 to 10 where 1 means strongly disagree and 10 means strongly agree.

### People Care About Their Lawns

Consistent with the rest of the data gathered during this research campaign, residents responding to this section of the survey valued the appearance of the lawn. Almost everyone (91%) highly agreed that the appearance of a lawn says something about the homeowner (mean = 8.28). Residents in the District want to have healthy lawns (83%) and they agree that having longer grass up to a certain point means having healthier grass (82%). Three quarters (77%) also agreed that raising the blade height on their lawnmowers was good for the environment. These are key motivators that should be utilized in a social marketing effort targeting this behavior.

Lawn care seems to be important to residents with lawn mowers, and they seem to know a great deal about their lawns. Two-thirds (78%) knew the specific type of grass they had on their lawns. The most common type of grass was St. Augustine- about half (49%) of the sample reported having it. About a fifth (18%) reported having Bahia grass. Some of the kinds of grasses respondents who reported “other” said they had were floritam and a mixture of different kinds of grasses. About two-thirds agreed that they are always looking for tips about keeping their lawn healthy and attractive. Two thirds know the best height for their type of grass (66%) and they regularly sharpening the blades on their lawnmower (63%).

For the most part, residents with lawn mowers keep their grass cut between two and four inches in height. About a quarter (27%) keep their grass at two inches in height and another quarter while 23% keep their grass at four inches in height. A large group (40%) of respondents reported keeping their grass at three inches tall. Half (57%) agree that they fertilize less when their grass is long. More than two-thirds (67%) said that they would be interested in seeing the results of a study showing a correlation between water use and grass height.

### Barriers To High Blade Height

Some barriers do exist concerning keeping the grass on respondents' lawns longer. Most (78%) agreed that the longer their grass is the more they feel a need to cut it. Two-thirds of residents who reported owning a lawn mower (62%) said that longer grass makes a lawn look less attractive. About half agreed that keeping their grass cut short is important to them (54%). Almost half (45%) said that they cut their grass often because they worry about weeds growing on their lawn and that regardless of how long their grass is, they always water their lawn with the same amount of water (47%). Residents living in the central region were statistically less likely to say they sharpen the blades on their lawnmowers.

A social marketing opportunity may be to “brand” taller grass as part of a Florida-friendly yard.

## Section 7: Downspout Disconnections

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Residents see the value of redirecting rainwater onto their landscape but see more risks than benefits concerning rain barrels. While many reported redirecting rainwater to their landscape, they consider maintaining a rain barrel a nuisance and are afraid of developing a possible mosquito breeding ground. Three-quarters of the respondents said that they have a downspout based on the definition given in the survey and three-quarters (77%) reported knowing how they work. Residents of the South region of the District were statistically more likely to have a downspout when compared to people living in the other regions. However, there were very few who reported having a rain barrel on their property.

When asked to identify where the water that flows into the street drains goes, nearly a third (30%) said the sewer system, a quarter (24%) said it went to a local body of water and another third (31%) said that they did not know. People in the South part of the District were statistically more likely to say that water that flows into the street drain will go to a local body of water. More than half of the sample reported concern about suffering water damage to their homes (58%) and are concerned that storm flooding will impact the quality of their water (54%). A third (33%) say they worry about rainwater flooding the storm drains in their neighborhood.

### Redirecting Water to Landscape

Respondents understood the environmental benefits of a disconnected downspout and reported redirecting rainwater onto their lawns. Almost all (94%) agreed that redirecting the water from their gutters into their home's landscape was good for the environment. While respondents from the North region of the District were statistically more likely to direct the water from their downspouts to their home's landscape, the majority (78%) of all respondents said they direct the water from their downspout to their home's landscape. A third said their neighbors use redirected rainwater to water their lawns and gardens. Two-thirds (67%) agreed that people who do not route their roof water into their landscape are water wasters. While it may seem that environmentalists would be more likely to feel this way, there was no statistical difference found between respondents who considered themselves environmentalist and those who felt this way.

### Rain Water Storage

While respondents are redirecting rainwater to their lawns, they are not storing it for later use as only 6% reported having a rain barrel on their property. Most (78%) respondents reported redirecting rainwater to irrigate their lawns and gardens but only 14% said they save rainwater for later use in household chores such as washing the car and watering the lawn. They agree that having a rain barrel is environmentally responsible and two-thirds (62%) agreed that having a rain barrel on their property is a sign to their neighbors that they were environmentally conscious.

The results of the survey uncovered some of the barriers to storing rainwater in a rain barrel or otherwise. More than half (55%) of the respondents said that storing rainwater on their property is more of a nuisance than it is worth. Half agreed that it takes too much time to maintain a rain barrel (47%) and that rain barrels are only good for breeding mosquitoes and other bugs (50%). Only a third (30%) agreed that they recommend rain barrels to friends. A third (33%) of respondents said that a rain barrel would have to store 50 gallons in order to be worth installing in their home. About a third (34%) felt that a rain barrel would have to hold more than 50 gallons in order to be worth installing in their home.

## Section 8: Installing Low-Flow Showerheads

Respondents want to save on their utility bills and most are taking actions to do so. They want to save on electricity and water but may be looking to ways other than installing low-flow showerheads to decrease their household’s water usage. They can also identify many ways to save money on their utility costs, many of which also conserve water. There are not many barriers to using a low-flow showerhead. A majority agreed that installing a low-flow showerhead was easy (73%) and that low-flow showerheads were easy to find in stores (69%), while 48% indicated being interested in installing one in their home. This may be because respondents are not frequently shopping for new showerheads. Less than a quarter (22%) of respondents reported buying a new showerhead less than a year ago. Nearly half (48%) said the last time they bought a showerhead was more than a year ago.

### Low-flow Showerheads Utility

Respondents were asked to think about ways people could impact the cost of their utility bills. They were asked to rate several behaviors that may save money on their home’s utility bill costs on a scale from 1 to 10 with one meaning “strongly disagree” and 10 meaning “strongly agree.”



Chart 8.2

Water pressure is important to respondents. Respondents were also asked to rate their agreement about several statements concerning low-flow showerheads. Chart 8.2 above shows the intensity of how much respondents agreed with statements about low-flow showerheads. Respondents (76%) agreed that strong water pressure in the shower was important to them and the intensity of their agreement (their average rating on a 10-point scale of agreement) shows that they feel fairly strongly about it (mean = 7.38). About a third (36%) said they would not enjoy showering with a low-flow showerhead. Only a third (29%) felt that low-flow showerheads perform no differently than high water-using models. About half (47%) agreed that water-conserving showerheads do not have good enough water pressure.

While on average respondents highly agreed that installing a new showerhead was easy (mean = 7.52), they seemed less interested in installing one in their home (mean = 5.67). About a third (27%) felt that low-flow showerheads were expensive, but the mean rating (mean = 4.54) shows that the intensity of their agreement with that statement was fairly low. Respondents from the Central region of the District were statistically more likely to agree that they would install a low-flow showerhead in their home if someone else paid for it (North mean = 5.83, Central mean = 6.74, south 5.94). They were also statistically more likely to agree that they would get a low-flow showerhead if someone else installed it (North mean = 4.59, Central mean = 5.24, South mean = 4.51) and that they would use a low-flow showerhead if someone else installed it (North mean = 4.7, Central mean = 5.45, South mean = 4.56).

### **Saving On Utility Bills**

Saving on utility costs was an idea that resonated with respondents. About three-quarters (77%) of respondents agreed that they are looking for ways to decrease the cost of their home's utility bills every month. Respondents were asked to think about ways people could impact the cost of their utility bills. They were asked to rate several behaviors that may save money on their home's utility bill costs on a scale from 1 to 10 with 1 meaning "does not save at all" and 10 meaning "saves a great deal."

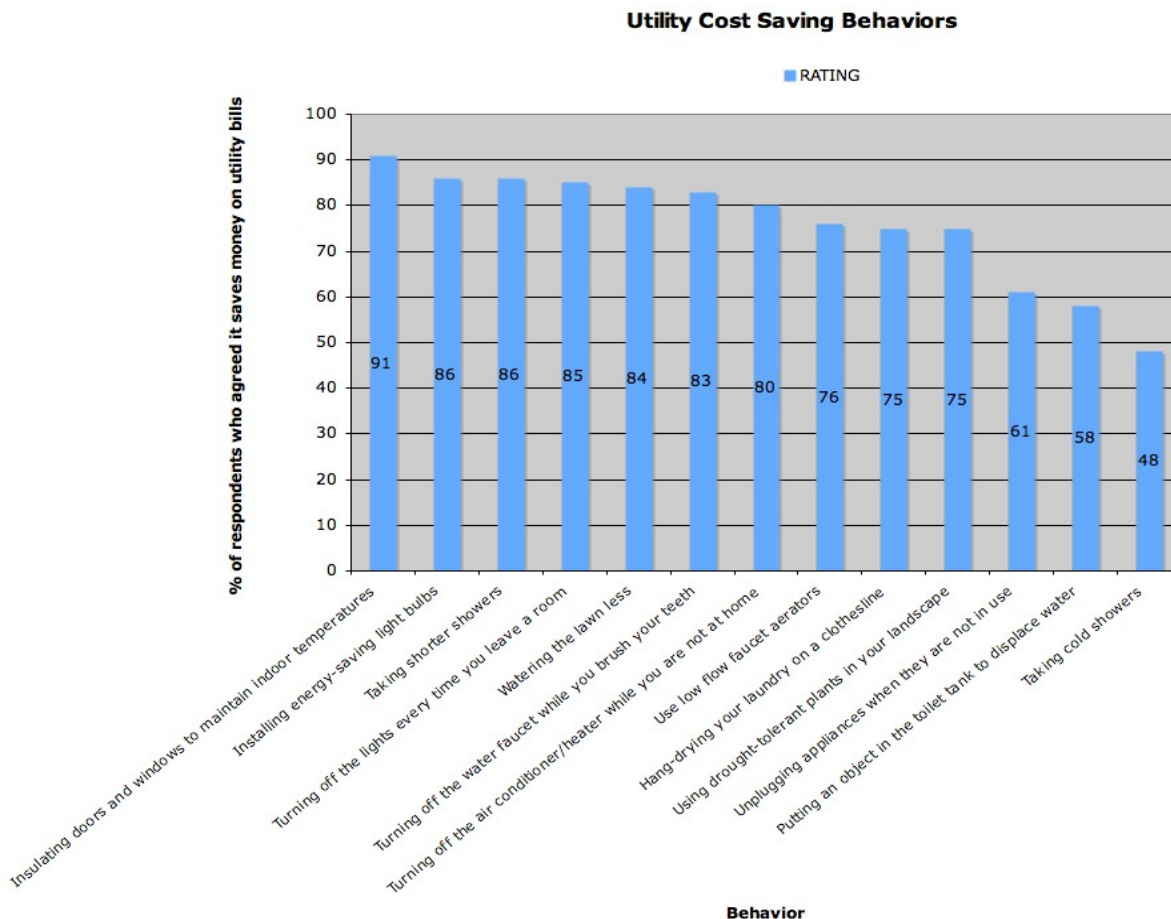


Chart 8.1

Generally, they felt all the behaviors listed in the question potentially saved them money on the cost of their home’s utility bills. As chart 8.1 illustrates, among the top were insulating doors and windows to maintain indoor temperatures (91%), installing energy-saving light bulbs (86%), taking shorter showers (86%) and turning off the lights every time you leave a room (83%). About three-quarters (76%) felt that using a low flow faucet aerator would help save money on utility bills. The behavior listed in this question that the smallest percentage of respondents felt saved money on their utility bills was taking a cold shower (48%).

Positioning low-flow showerheads as a good way to save money on the home’s utility bills may spark increased low-flow showerhead use in residents’ homes. According to the results of this survey, the major barriers in increasing the use of low-flow showerheads seemed to be an affinity for strong water-pressure while taking a shower and the fact that people do not shop for showerheads often. Respondents seemed to feel that using a low-flow showerhead would cause them to have a different shower experience. Nearly half (48%) said the last time they purchased a showerhead was more than a year ago. Obtaining a low-flow showerhead and installing it in their home did not seem to be a barrier in using a low-flow showerhead either. Results from the survey show that respondents did not feel that finding a low-flow showerhead in the store is difficult and that it would be relatively easy to install one in their home. Having a low-flow showerhead does not seem to be the norm in respondents’ communities as only a third (31%) said they knew someone with a low-flow showerhead in their home. The majority (80%) of respondents, however, strongly agreed (mean = 7.77) with wanting their household to use less water and three-quarters (77%) agreed with wanting to save money on their utility bills. Saving on utility bills and decreasing water use can be useful motivators in encouraging residents to use low-flow showerheads.



## Section 9: Septic Tank Maintenance

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Note: This section discusses only the responses of respondents who reported having a septic system on their property – those who did not indicate having a septic tank did not participate in this section. About a third of the total sample participated in this part of the survey.

Respondents seem to know the resources they need to perform the proper behaviors concerning septic tank maintenance; however, they are not performing those behaviors as often as they should. Responses gathered from participants concerning septic tank maintenance shows that residents feel that finding professional care for their tanks is easy. Remembering to maintain their tank before a problem occurs or inspecting the tank as often as recommended, however, was not widely reported. All participants, regardless if their home had a septic tank, were asked to approximate the year their home was built. The average year of respondents' homes was 1988. The most frequent response, however, was 2004. Residents in the North region of the District were statistically more likely to live in a newer home compared to residents of the other regions (North mean = 1993, Central mean = 1983, South mean = 1988).

About a third (32%) of the respondents reported having a septic system. Respondents in the North region of the District were statistically more likely to live in a home with a septic system – about half (55%) of this group indicating having one. A quarter (25%) of respondents from the South region of District and 18% of respondents from the Central District said their homes had septic systems. Only about a tenth (11%) said they did not know if their home had a septic system.

### Out Of Sight Out Of Mind

It seems as though residents forget about their septic system until a problem occurs. Respondents who lived in a home with a septic tank were asked to rate their agreement with several opinion statements regarding septic system maintenance. They rated their agreement or disagreement on a 10-point scale, with 1 meaning “strongly disagree” and 10 meaning “strongly agree.” These attitudes are shown in Chart 9.1 and discussed below.

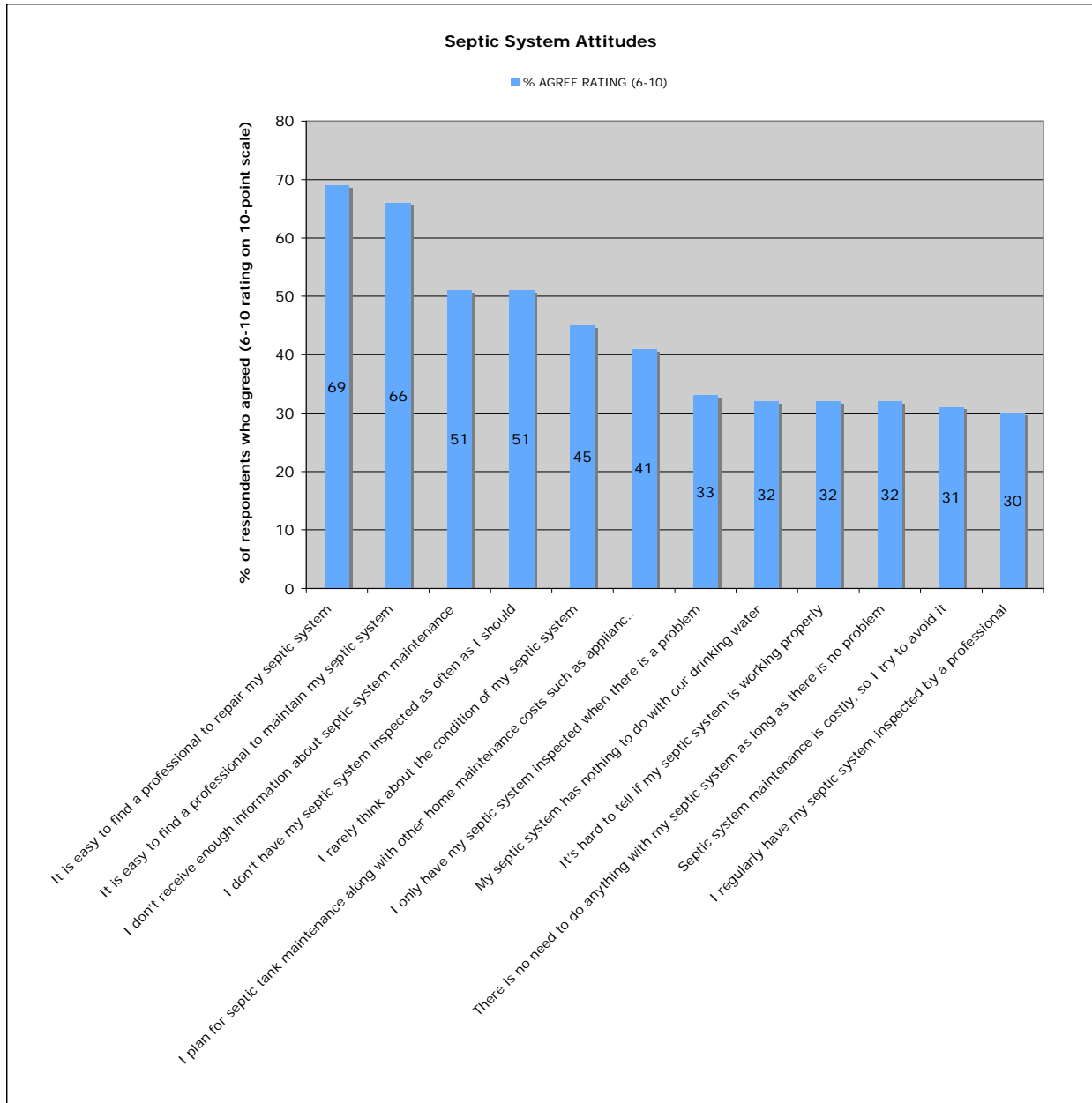


Chart 9.1

Nearly half (45%) agreed that they rarely think about the condition of their septic system and a third agreed that they only have their system inspected when there is a problem. There are many possible reasons for these attitudes. One may be that when it comes to septic systems, homeowners have an “out of sight, out of mind” mentality. They may not think about their septic systems because they are underground and out of sight. Another may be because residents do not know how to tell if their system is working properly, as a third (32%) of respondents reported. And still another may be because they feel that they do not have to take any action concerning their septic system until there is a problem. Only a third (30%) of respondents agreed that they regularly have their septic system inspected by a professional. And half (51%) agreed that they do not have their septic system inspected as often as they should. Residents may be inclined to better and more frequently maintain their septic systems if they received reminders or a checklist through the mail every few years prompting residents to perform routine maintenance checks around their home, including money and trouble saving tips such as getting their septic systems inspected in order to avoid costly repairs.

Respondents from the North region were statistically the least likely to agree that they regularly have their septic system inspected by a professional while respondents from the Central region were statistically the most likely to agree that they regularly have their septic system inspected by a professional.

### Septic System Maintenance

The sample seemed to be divided regarding inspecting their septic tanks. The average cost respondents thought it cost to have their septic tank inspected was \$197.34. They thought the cost to have their septic tank pumped was higher, with an average of \$339.22. The District suggests that homeowners have their septic systems inspected every two to three years. About a quarter (29%) felt that their septic tank should be inspected every single year, another quarter (27%) indicated it should be done once every 2 years and another quarter (25%) said their septic tank should be inspected once every 5 years. If there is conflicting information disseminated about the proper timetable to inspect the home’s septic tank, this should be clarified. Although two-thirds (66%) agreed it was easy to find a professional to maintain their septic tanks, half (51%) of the respondents said that they do not inspect their septic tanks as often as they should. They have the knowledge but there are other barriers to performing or ordering the inspection. A timely reminder through mail, perhaps in a supplement or newsletter in a monthly statement from the electric company or homeowner’s insurance agency, along with a coupon or some other incentive may encourage homeowners to have their tanks inspected.

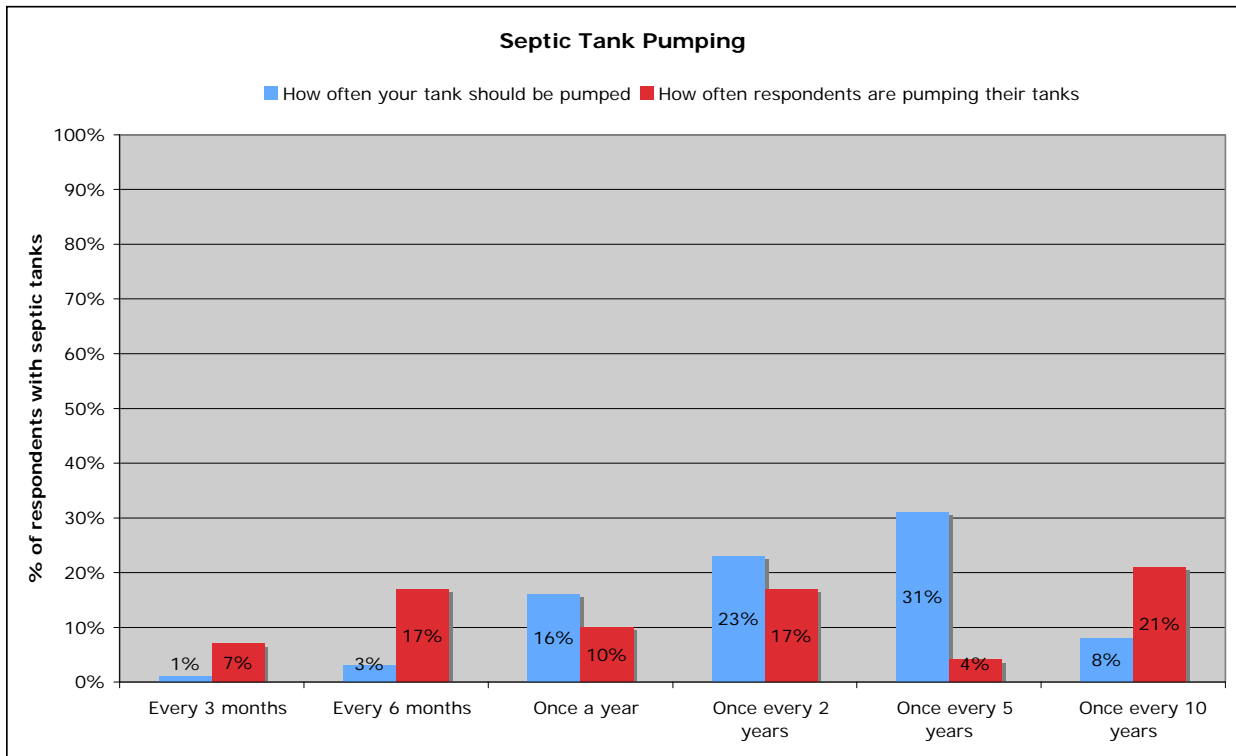


Chart 9.2

Respondents’ opinions about how often their septic tank should be pumped were also scattered. About a fifth (20%) felt their tank should be pumped once a year or less. Nearly a quarter (23%) thought their tank should be pumped once every two years and a third (31%) felt their septic tank should be pumped once every five years. Respondents are pumping their septic tanks less often than they think they should be. As shown in Chart 9.2 above, for each time frame in which respondents felt their septic tanks *should* be pumped between “once a year” and “once every five years,” a smaller percentage of respondents consistently reported *actually* pumping their septic tanks.

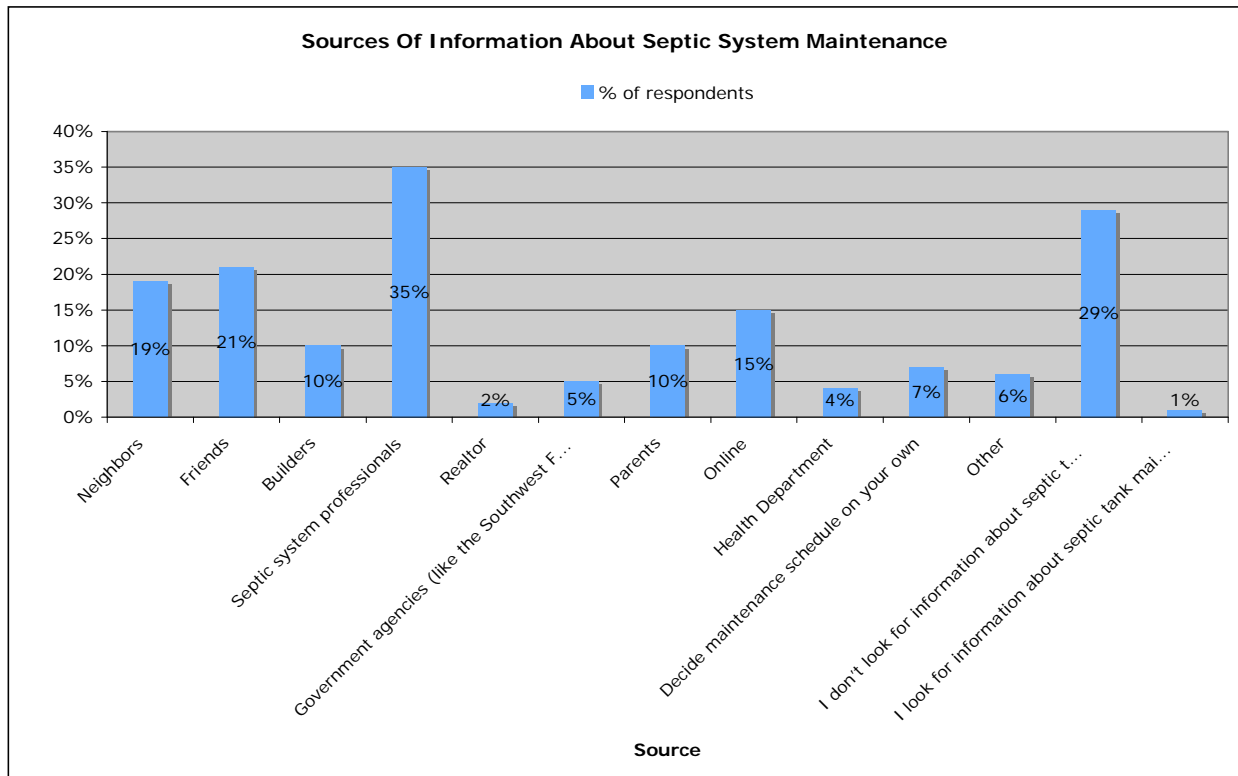


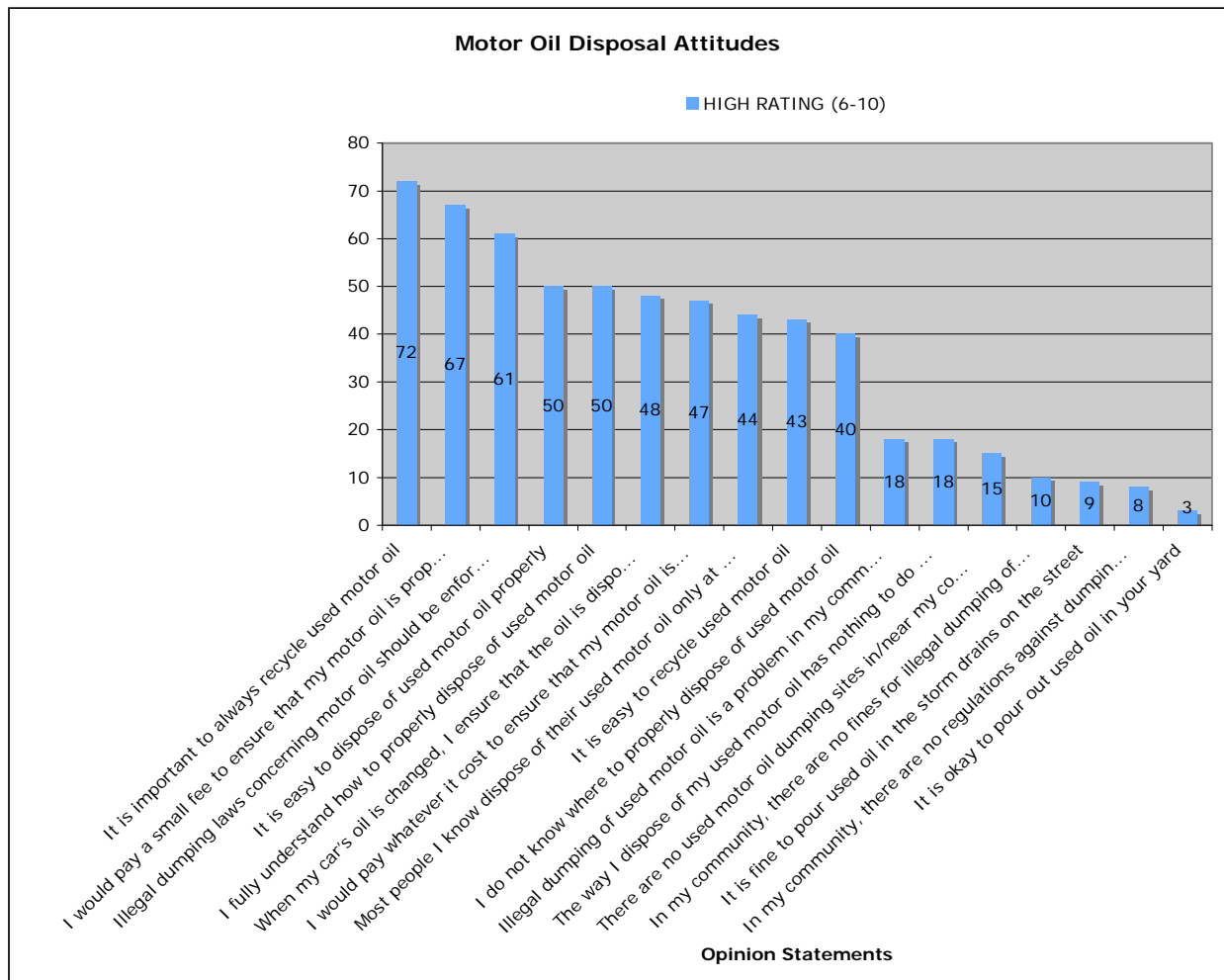
Chart 9.3

Respondents were also asked to identify where they receive information about how to inspect their septic systems. They were able to select multiple sources of information. These sources are shown in Chart 9.3 above. Respondents from the South portion of the District were statistically the least likely to indicate they obtained information about septic tank maintenance from online sources (north 22%, central 10%, south 6%).

## Section 10: Motor Oil Disposal

Nearly all respondents participated in this portion of the survey, as 97% of the sample reported owning a car. The majority (83%) of respondents reported taking their car to a mechanic or oil changing facility to change their oil. This may be part of the reason that why respondents did not have strong opinions regarding motor oil. Perhaps they did not know very much about motor oil changing and therefore motor oil dumping. Respondents did not have to worry about disposing of the motor oil themselves.

Participants were asked to rate their agreement concerning several statements about motor oil on a scale from 1 to 10 with a rating of 1 indicating they “strongly disagreed” and a rating of 10 indicated that they “strongly agreed.” A rating of 6 or above indicates that the respondent agreed at least somewhat with the statement. Below, Chart 10.1 shows these statements and the percentages of respondents who agreed with them.



Respondents recognized that disposing of oil properly is important and that it is the “right” thing to do. A large percentage (72%) agreed it is important to always recycle used motor oil. No one reported having been fined for illegal dumping of used motor oil. This may be underreported or perhaps proper dumping of motor oil is not well enforced in these areas. They are not involved with the actual disposing of the oil, so

a better audience for this issue may be the mechanics who are more likely to have motor oil to dispose of as well as oil changing shops.

There were statistical differences between the different regions of the District and attitudes concerning motor oil disposal. Residents of the North region were more likely to agree that it was easy to dispose of used motor oil properly. Residents of the Central region were less likely to know where to properly dispose of their used motor oil, less likely to fully understand how to properly dispose of used motor oil and more likely to agree that there are no used motor oil dumping sites in or near their community. Their lack of knowledge is not a complete loss as they strongly agreed that it was important to always recycle used motor oil (mean = 7.57) and may be open to receiving messages informing them about how to properly dispose of their motor oil and how to ensure that their mechanics or oil changing shops are doing so as well. It is clear that respondents living in the Central region of the District need an intervention concerning the dumping of used motor oil and may be receptive to messages about proper disposal if the message is framed in a way that resonates with this group.

## Section 11: Demographics

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### White Paper Survey 1: Fertilizer, Pesticide and Pet Waste

#### Demographics

Most of the respondents in this survey were Caucasian long-time Floridian females with families. Respondents in the first survey were distributed with half of the sample being residents of counties in the North region of the District, a third (30%) of the sample was from the Central region and a fifth (20%) was from counties in the South region. The majority of respondents were homeowners (84%) who lived in Florida year-round (98%). About a quarter (27%) reported living in their respective counties between one and five years. Another quarter (27%) reported living in their county for over 20 years. Respondents from the Central region of the District were statistically more likely to have lived in their county for 20 years or more while respondents from the North region were statistically more likely to live in their county a shorter time, between one and five years.

The sample included many individuals with families. Three-quarters (76%) were female. About two-thirds (68%) were married and a third (38%) had children under the age of 18 living in their home. A large majority of respondents (87%) considered themselves to be Caucasian. Half of the respondents were employed full-time.

38% have graduated college, in addition, 50% of respondents have a full-time employment status, while the average rate of retired respondents is 21%, the Central region has the fewest at 15%. Respondents had a fairly even distribution of household income during 2007 with about a fifth reporting. Six percent made less than \$25,000 and 17 percent declined to answer.

#### Psychographics

Participants were asked to rate several psychographic statements on a scale from one to 10, based on how each statement describes their personality. A rating of 1 indicated that the statement did not describe them at all while a rating of 10 indicated that the statement describes them very well. If the respondent indicated an agreement of six to 10, it can be considered that the statement at least somewhat described them. A rating of 5 or below means that the statement did not describe them. Below, Chart 11.1 shows these psychographic statements and the percentages of respondents who felt it described them.

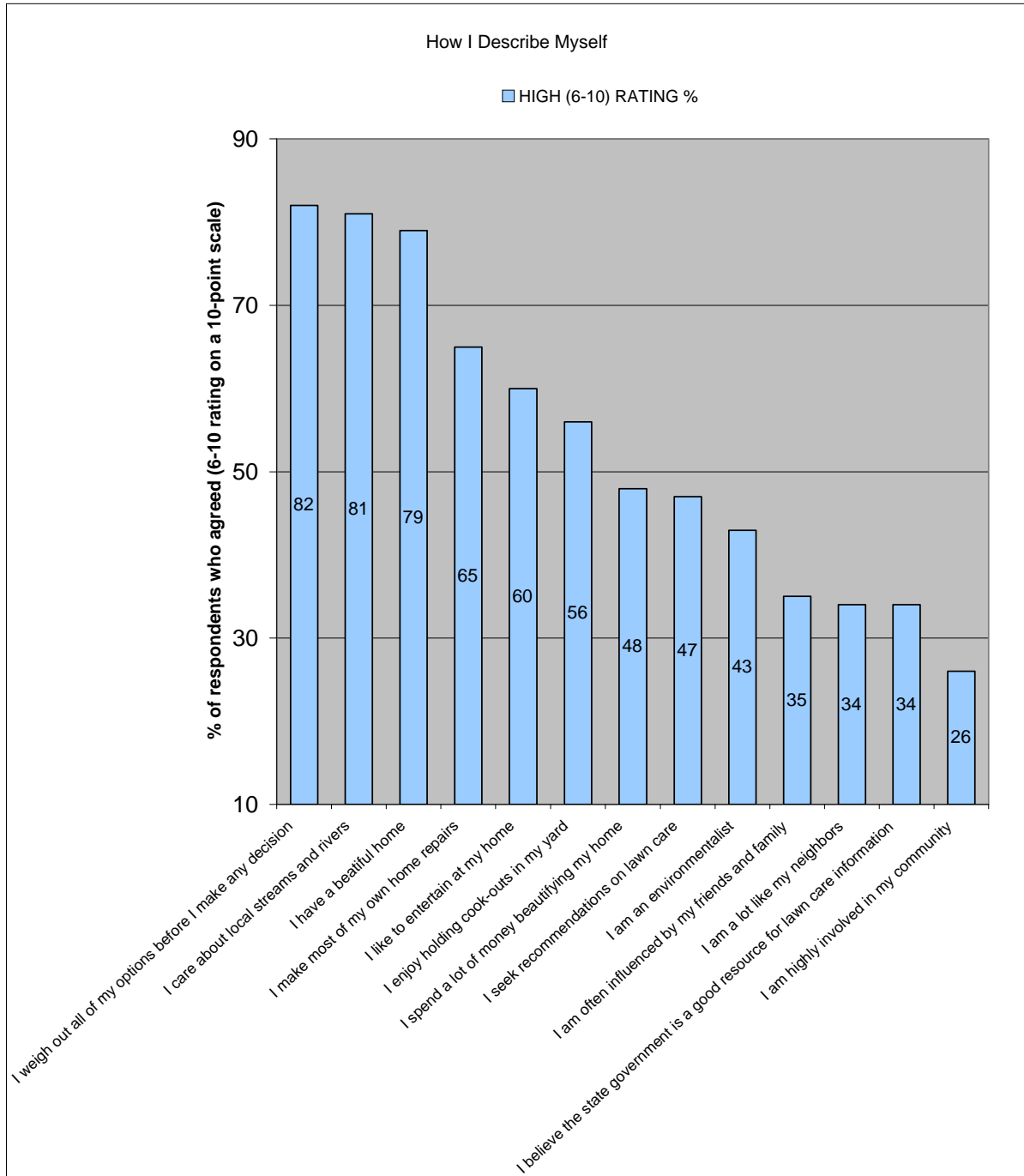


Chart 11.1

While nearly all respondents (81%) agreed that they cared about local streams and rivers, less than half (43%) considered themselves environmentalists. About two-thirds (65%) reported making most of their own home repairs. Half (47%) agreed that they seek recommendations on lawn care and a third (34%) felt that the state government was a good resource of information for that use. A good way to reach a broader audience may be to appeal to their interests in local streams and rivers rather than with messages about being a good environmentalist. Another avenue would be to frame messages as helpful tips about home repair in general. Only one statement showed a statistical difference between regions. Respondents living in the Central region were more likely to disagree with the statement “I am a lot like



my neighbors.” About a third of respondents from this region agreed that they were a lot like their neighbors.

## **White Paper Survey 2: Raising Lawnmower Blade Height, Downspout Connections and Rain Sensor Installation**

### **Demographics**

The sample of the second White Paper Social Marketing Intervention commissioned by the District was evenly distributed across the North, Central and South regions of the District. Nearly all were Caucasian homeowners (90%) who lived in Florida year-round (97%) and performed their own minor repairs around the home (93%). A third (34%) reported having lived in their county between one and five years. Nearly three-quarters (71%) of the sample were married and two-thirds (64%) were female. A third (33%) of respondents had grandchildren, with residents living in the Central region of the District being more likely to report having grandchildren.

These respondents were educated, with almost all (99%) having at least graduated high school and more than half (54%) reporting having a college or advanced degree. About half (48%) were employed full-time and about a quarter (24%) reported being retired. Respondents had a fairly even distribution in terms of their household income during 2007. Only 5% reported their household income was less than \$25,000 and about fifth (18%) declined to answer.

### **Psychographics**

Participants were asked to rate several psychographic statements on a scale from 1 to 10, based on how each statement describes their personality. A rating of 1 indicated that the statement did not describe them at all while a rating of 10 indicated that the statement describes them very well. If the respondent indicated an agreement of 6 to 10, it can be considered that the statement at least somewhat described them. A rating of 5 or below means that the statement did not describe them. Below, Chart 11.2 shows these psychographic statements and the percentages of respondents who felt it described them.

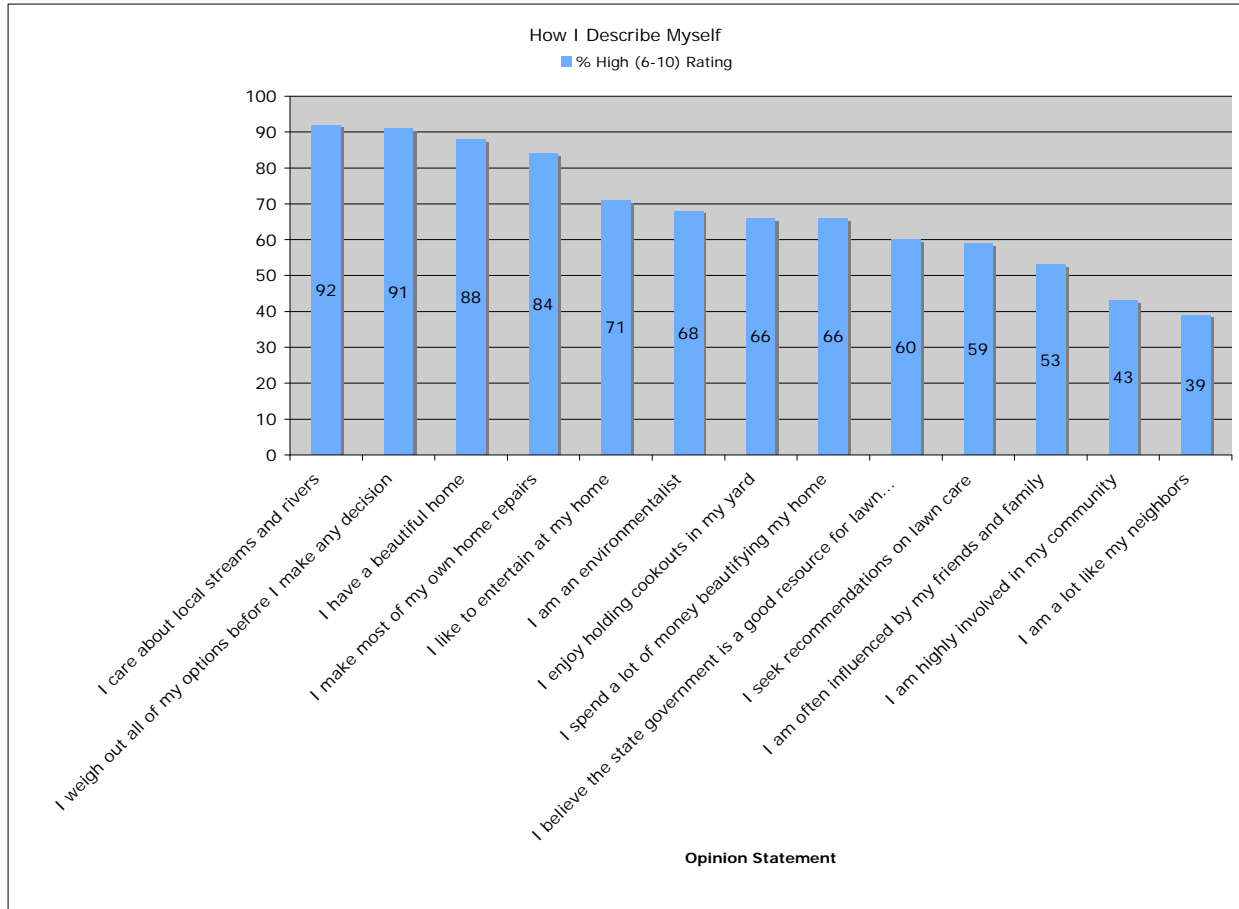


Chart 11.2

Consistent with the results from Survey 1, respondents highly agreed that they weighed out all of their options before making decisions and that they cared about local streams and rivers. More respondents agreed that they are environmentalists in this second survey than in the first. Respondents take pride in their homes, make their own home repairs and enjoy spending time in their yards. More than half felt that the state government was a good resource for information regarding lawn care. That indicates that the District has a good opportunity to send messages about raising lawnmower blade height, downspout disconnections and rain sensor installations. There are several ways to frame these messages – as ways to show they care about local rivers and streams and as tips about beautifying their yards and making them more enjoyable.

## **White Paper Survey 3: Low-flow Showerheads, Septic Maintenance and Motor Oil**

### **Demographics**

A large percentage of respondents (88%) identify themselves as Caucasian/White and most (68%) are female, and married (66%). Almost all respondents (94%) live in Florida year-round, and 78% are homeowners. Respondents living in the Central region are twice as likely (23%) to rent their home as those who live in the North or South region. When asking respondents how long they have lived in their counties, results were fairly distributed among the available choices, but the largest minority (33%) fell into the 1 to 5 years range.

Nearly half (43%) of respondents have a full-time employment status, and while the total average amount of retired respondents is 27%, the Central region has the fewest (14%). One-third (35%) of respondents have graduated college, and a large minority (23%) made between \$50,000 to \$75,000 dollars household income in 2007.

Most respondents (53%) have at least one child, and when looking at age ranges of their children (<5 years old, 6-10 years old, 11-15 years old, 16-18 years old, 19-25 years old), the Central region is more likely to have at least 1 or 2 children in each age segment. Two-thirds (65%) say that their child has never brought home any information about water conservation from school, while two-thirds (67%) of respondents say that their child has been on an environmental field trip with their school. Chart 11.3 (below) shows the percentages of respondents whose children have taken specified environment field trip with their school.

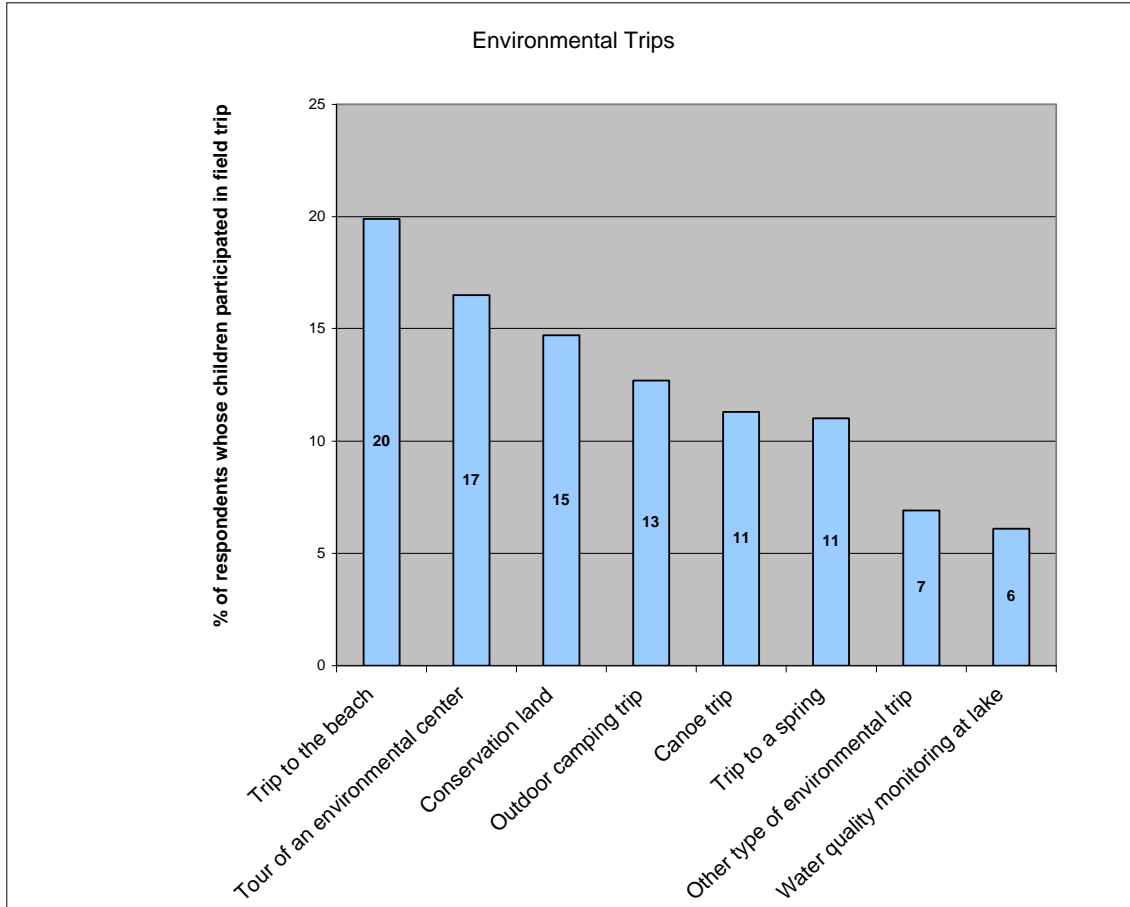


Chart 11.3

### Psychographics

Participants were asked to rate several psychographic statements on a scale from 1 to 10, based on how each statement describes their personality. A rating of 1 indicated that the statement did not describe them at all while a rating of 10 indicated that the statement describes them very well. If the respondent indicated an agreement of 6 to 10, it can be considered that the statement at least somewhat described them. A rating of 5 or below means that the statement did not describe them. Chart 11.4 (below) shows the percentages listed for each statement, indicating the portion of respondents who rate the statement a 6 or higher.

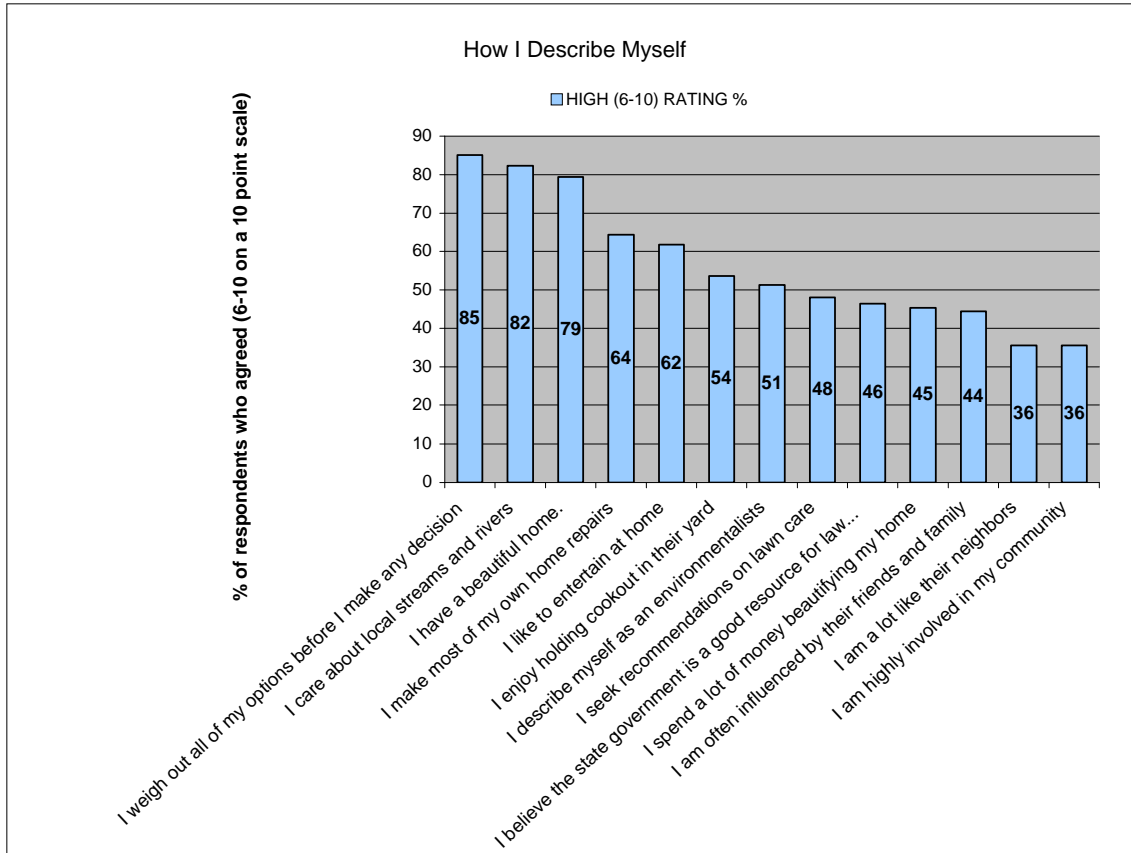


Chart 11.4

Respondents living the North region were different since they were the only region where the majority seeks recommendations on lawn care, and the region is more likely to perform most of their own home repairs.

## Appendices

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## Survey 1: Instrument

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**SWFWMD – Survey 1****White Paper Social Marketing Intervention**

Survey: Fertilizer, Pet Waste and Pesticides

**I. INTRODUCTION**

We are conducting a short public opinion poll to find out how people in Florida care for their homes and lawns. All of the answers given today will remain anonymous.

Please complete all of the questions appearing on each page. Always scroll down to make sure you have answered all of the questions provided before moving to the next page. When you are ready to move on to the next page, click the "Next" button located in the lower portion of the screen.

**II. SCREENER**

Let's begin by asking a few questions to see if this survey applies to you.

**1. What county do you live in? [limit based on SWFWMD district]**

- |                            |                        |
|----------------------------|------------------------|
| 1) Alachua                 | 43) Miami-Dade         |
| 2) Baker                   | 44) Monroe             |
| 3) Bay                     | 45) Nassau             |
| 4) Bradford                | 46) Okaloosa           |
| 5) Brevard                 | 47) Okeechobee         |
| 6) Broward                 | 48) Orange             |
| 7) Calhoun                 | 49) Osceola            |
| 8) Charlotte [South]       | 50) Palm Beach         |
| 9) Citrus [North]          | 51) Pasco [Central]    |
| 10) Clay                   | 52) Pinellas [Central] |
| 11) Collier                | 53) Polk [Central]     |
| 12) Columbia               | 54) Putnam             |
| 13) DeSoto [South]         | 55) St. Johns          |
| 14) Dixie                  | 56) St. Lucie          |
| 15) Duval                  | 57) Santa Rosa         |
| 16) Escambia               | 58) Sarasota [South]   |
| 17) Flagler                | 59) Seminole           |
| 18) Franklin               | 60) Sumter [North]     |
| 19) Gadsden                | 61) Suwannee           |
| 20) Gilchrist              | 62) Taylor             |
| 21) Glades                 | 63) Union              |
| 22) Gulf                   | 64) Volusia            |
| 23) Hamilton               | 65) Wakulla            |
| 24) Hardee [South]         | 66) Walton             |
| 25) Hendry                 | 67) Washington         |
| 26) Hernando [North]       |                        |
| 27) Highlands [South]      |                        |
| 28) Hillsborough [Central] |                        |
| 29) Holmes                 |                        |
| 30) Indian River           |                        |
| 31) Jackson                |                        |
| 32) Jefferson              |                        |
| 33) Lafayette              |                        |
| 34) Lake [North]           |                        |
| 35) Lee                    |                        |
| 36) Leon                   |                        |
| 37) Levy [North]           |                        |
| 38) Liberty                |                        |
| 39) Madison                |                        |
| 40) Manatee [South]        |                        |
| 41) Marion [North]         |                        |
| 42) Martin                 |                        |

**Sample Distribution:**

North: n=200

Central: n=200

South: n=200



**2. Do you own or rent your home?**

1. Own
2. Rent
3. Live with a family member
4. Refused [THANK AND TERMINATE]

**3. Does your home have a lawn?**

1. Yes
2. No [THANK AND TERMINATE]

**4. Who cares for your lawn?**

1. I do
2. Spouse
3. Someone else in the home
4. Lawn service/gardener paid by household
5. Lawn service/gardener paid by others (landlord, apartment manager, maintenance fees etc.) [THANK AND TERMINATE]
6. No one [THANK AND TERMINATE]

**5. Below is a list of activities that you and many people in your community may have performed before. Please rate each one according to your perception of importance. A rating of 10 indicates it is EXTREMELY IMPORTANT, and a rating of 1 indicates that it is NOT AT ALL IMPORTANT. [ROTATE CHOICES]**

	<i>FACTOR</i>	<i>RATING</i>
A	Making repairs around my home	
B	Paying bills	
C	Eating dinner with my family	
D	Running errands	
E	Finding time for myself.	
F	Keeping my lawn mowed.	
G	Maintaining my home's septic system or plumbing	
H	Fertilizing my lawn	
I	Picking up pet waste in my lawn	
J	Changing the oil in my personal vehicle	
K	Cleaning out my gutters	
L	Watering my lawn	
M	Installing energy-saving appliances in my home	

**6. On a scale from 1 to 10, where 10 is EXTREMELY IMPORTANT and 1 is NOT IMPORTANT AT ALL, how important are the following factors when deciding how you landscape and care for your lawn? [ROTATE CHOICES]**

	<i>FACTOR</i>	<i>RATING</i>
A	How much it will cost	
B	How difficult it will be to keep up	
C	How the yard will look; its overall appearance	
D	What neighbors will think	
E	The impact on property value	
F	The impact on local water sources	
G	How long it will take to do	
H	The amount of watering necessary	
I	The amount of fertilizer it will require	
J	Rules of my homeowners' association	

7. **In what month or months did you or do you plan to fertilize your lawn this year? Check all that apply**

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December
13. I'm not sure
14. Never/Not at all [Go to Q11]

### **Fertilizer Use**

8. **Thinking about how you or your gardener/lawn service care for your lawn, please rate on a scale from 1 to 10, where 10 is STRONGLY AGREE and 1 is STRONGLY DISAGREE, how much you agree with the following statements. [ROTATE CHOICES]**

	<i>FACTOR</i>	<i>RATING</i>
A	When applying fertilizer, I use water to help it absorb into the lawn.	
B	I use slow-release fertilizer.	
C	I would change how often I apply fertilizer if I learned the amount I currently apply is harmful to the environment.	
D	I would change my fertilizer if I learned the fertilizer I currently use is harmful to the environment.	
E	The way I fertilize my lawn doesn't affect the environment in a substantial way.	
F	Keeping my grass cut short means easier maintenance than keeping it long.	
G	It's important to keep fertilizer off of hard-top surfaces like sidewalks, driveways and streets.	
H	Purchasing fertilizer can be very confusing.	
I	As long as my lawn looks good, I don't care about how fertilizer works.	
J	I use more than one type of fertilizer on my yard. For example, one type for my flowering plants and one type for the grass in my lawn.	
K	It is impossible to have an attractive lawn without using fertilizers.	

9. **What statement best describes how you determine when to fertilize your lawn?**

1. Condition of the lawn
2. Specific time of year
3. Reminders from an outside source (newspapers, tv, radio, local organizations)
4. People in your neighborhood are fertilizing
5. Your family or friends are fertilizing
6. When I see sales and advertising for fertilizers
7. Other: [Write in response]

10. **Which of these comes closest to describing how you determine the amount of fertilizer to apply to your lawn? [ROTATE CHOICES]**

1. Ask the salesperson where I bought the fertilizer
2. Ask a friend or neighbor
3. Use directions on the package
4. Guess
5. Fill the container of the equipment I use to spread the fertilizer
6. Divide the bag evenly on my yard and discard the bag
7. Other: [Write in response]

11. Below is a list of various fertilizers people use to beautify their lawns. Please choose the ones you think are “non-chemical.”

1. Slow release fertilizer
2. Grass clippings
3. Weed and feed product
4. Water-soluble fertilizer
5. Reclaimed water
6. Plant food
7. Compost
8. Manure

**Reducing Residential Pesticide Use**

12. Thinking about how you or your gardener/lawn service care for your lawn, please rate on a scale from 1 to 10, where 10 is STRONGLY AGREE and 1 is STRONGLY DISAGREE, how much you agree with the following statements. [ROTATE CHOICES]

	FACTOR	RATING
A	Keeping my lawn healthy is important to me.	
B	Pesticides have low health risks.	
C	Pesticides don't really have an effect on the environment.	
D	Keeping my lawn attractive is important to me.	
E	I feel pressure from my neighbors or homeowners' association to keep my lawn attractive.	
F	I know many people who treat their lawns with non-chemical pesticides.	
G	Pesticides are generally not harmful to children's health.	
H	I care what my neighbors think of my property.	
I	I don't know of any bugs that improve the health of my yard or garden.	
J	Using too much pesticide is harmful to the environment.	

13. Do you use store-bought pest management products (for example, chemical pesticides or non-chemical organic pesticides) on your lawn?

1. Yes [GO TO Q14]
2. No [GO TO Q20]
3. I don't know [GO TO Q20]

14. Thinking about how you care for your lawn, please rate on a scale from 1 to 10, where 10 is STRONGLY AGREE and 1 is STRONGLY DISAGREE, how much you agree with the following statements. [ROTATE CHOICES]

	FACTOR	RATING
A	When I use pesticides, I only spot-treat where pesticides are needed.	
B	I personally know of many methods to care for my lawn without using chemical pesticides.	
C	The risks of using non-chemical pesticides outweigh its benefits.	
D	Using chemical pesticides is more effective than using organic, non-chemical alternatives.	
E	I don't use non-chemical pesticides because they are too expensive.	
G	Using chemical pesticides saves time and money.	
H	Since pesticides wash off when it rains, it is important to apply often.	
I	When I see any bugs in my yard, I apply pesticide.	

15. When treating your lawn, what kind of pesticide do you use most often? [open-ended]

**16. When using pesticide on my lawn, I expect to see results:**

1. Immediately
2. In a few days
3. In a week
4. Two weeks
5. A month
6. A few months
7. Other [Write in response]

**17. When using pesticides, I will re-apply if I don't see results:**

1. In a few days
2. In a week
3. Two weeks
4. A month
5. A few months
6. Other [Write in response]

**18. When shopping for pesticides to use on your lawn, do you find that non-chemical, organic products are widely available?**

1. Yes
2. No
3. I haven't really noticed

**19. Give an example of a non-chemical pesticide. [open-ended]****Pet Waste Cleanup****20. Do you own a dog?**

1. Yes
2. No [GO TO Q 24]

**21. How often do you use public areas (like parks, sidewalks and green spaces) to walk your dog?**

1. Every day
2. Four to six times a week
3. Two or three times a week
4. Once a week
5. Twice a month
6. Once a month
7. I don't walk my dog in public areas on a regular basis

**22. How do you get rid of your dog's waste? Please choose the statement that most closely reflects your actions.****[ROTATE CHOICES]**

1. I throw it in the trash
2. I leave it on the grass
3. I bury it underground
4. I flush it down the toilet
5. I put it in a home composting pile
6. Put it in the flower beds
7. Hose it into the ground
8. Other [Write in response]

23. Thinking about how you care for your dog, please rate on a scale from 1 to 10, where 10 is **STRONGLY AGREE** and 1 is **STRONGLY DISAGREE**, how much you agree with the following statements. [ROTATE CHOICES]

	FACTOR	RATING
A	The way I dispose of my pet's waste is my own business.	
B	Cleaning up my pet's waste is an undesirable but necessary task.	
C	I carry plastic bags when we go for walks to pick up my pet's waste.	
D	I am responsible for pet waste on my property even though it may not have come from my pet.	
E	I regularly walk my dog in dog parks or other public community parks.	

24. Thinking about the presence of pet waste in your community, please rate on a scale from 1 to 10, where 10 is **STRONGLY AGREE** and 1 is **STRONGLY DISAGREE**, how much you agree with the following statements. [ROTATE CHOICES]

	FACTOR	RATING
A	Pet waste can serve as a fertilizer.	
B	It is the city's responsibility to pick up pet waste in public areas.	
C	Pet waste is more of a health issue than an environmental one.	
D	Pet waste is a health hazard to humans.	
E	Pet waste left on the ground will eventually end up in the closest body of water (for example, a local stream or lake).	
F	Proper disposal of pet waste is a problem in my community.	
G	The presence of pet waste in my community hinders my ability to enjoy being outdoors.	
H	Putting dog waste in a plastic bag, which will possibly end up in a landfill, is worse for the environment than leaving the waste on the ground.	

### General questions

25. In a typical household, which area of the home do you think uses the most water each month? [open-ended]
26. Below is a list of various activities that use water in a home. Please rate each activity according to how much water you think each uses. A rating of 1 indicates the activity **USES A MINIMAL AMOUNT OF WATER** and a rating of 10 indicates the activity **USES A CONSIDERABLE AMOUNT OF WATER**. [ROTATE CHOICES]

	FACTOR	RATING
A	Doing a full load of laundry	
B	Doing the dishes in the sink with the water running	
C	Running the Dishwasher with a full load of pots and pans	
D	Watering the lawn for a half hour using an in-ground irrigation system	
E	Taking a 10-minute shower with a regular showerhead	
F	Taking a 10-minute shower with a low-flow showerhead	
G	Brushing your teeth with the water running	
H	A toilet flush from a regular toilet	
I	A toilet flush from a low-volume toilet	
J	Watering the lawn for a half an hour using a garden hose	
K	Running water while shaving	
L	Filling the tub for a bath	
M	Washing a car with a hose	

27. There are several issues listed below. Thinking about your own community, please rate the importance of each according to how they affect you and your neighbors. A rating of 1 is of LEAST IMPORTANCE and a rating of 10 is of MOST IMPORTANCE. [ROTATE CHOICES]

What is the importance of...

	FACTOR	RATING
A	Protecting the water quality of our lakes, rivers and streams	
B	Protecting the quality of our drinking water	
D	Increasing safety from crime in our neighborhoods	
E	Improving the quality of life for families in our community	
F	Improving the quality of recycling programs	
G	Maintaining and increasing property values	
H	Protecting natural areas like woodlands and forests	
I	Reducing litter and improper garbage dumping	

28. Now I want to ask you a little bit about what kind of person you are. On a scale from 1 to 10, where 10 means it DESCRIBES YOU VERY WELL and 1 means it DOESN'T DESCRIBE YOU AT ALL, Please rate how much the following statements describe you. [ROTATE CHOICES]

		Rating
A	I am an environmentalist.	
B	I have a beautiful home.	
C	I am often influenced by my friends and family.	
D	I enjoy holding cook-outs in my yard.	
E	I am a lot like my neighbors.	
F	I like to entertain at my home.	
G	I seek recommendations on lawn care.	
H	I believe the state government is a good resource for lawn care information	
I	I care about local streams and rivers.	
J	I spend a lot of money beautifying my home.	
K	I am highly involved in my community.	
L	I weigh out all of my options before I make any decision.	
M	I make most of my own home repairs	

**Demographics**

29. Do you have any children or grandchildren under the age of 18 who live in your home?

1. Yes
2. No

30. How long have you lived in your county?

1. Less than 1 year
2. 1 to 5 years
3. 6 to 10 years
4. 11 to 15 years
5. 16 to 20 years
6. More than 20 years

31. Do you live in Florida year-round?

1. Yes
2. No

32. What is your present employment status?

1. Employed full-time
2. Employed part-time
3. Voluntarily not in the work force (in school; raising family, etc.)
4. Unemployed but not retired
5. Retired

**33. What is the highest level of education you have reached so far?**

1. Less than high school
2. High school graduate
3. Some college
4. College graduate
5. Advanced degree (Masters/Doctorate)

**34. In what range did your total household income fall during 2007?**

1. Less than \$25,000
2. \$25,001 to \$50,000
3. \$50,001 to \$75,000
4. \$75,001 to \$100,000
5. More than \$100,000
6. Decline to answer

**35. Do you consider yourself:**

1. Caucasian/White
2. African American/Black
3. Hispanic/Latino
4. Asian or Pacific Islander
5. Native American or Alaskan native
6. Mixed racial background
7. Other race
8. Decline to answer

**36. What is your current marital status?**

1. Single
2. Married
3. Divorced
4. Widowed
5. Decline to answer

**37. What year were you born? 19[number]****38. What is your gender?**

1. Male
2. Female
3. Decline to answer

**Closing statement:** Thank you for helping us with this research. Your answers will be used to help the State of Florida provide information to the citizens in your area about proper lawn care that will protect lakes, rivers, streams and Florida's watersheds.

## Survey 2: Instrument

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**White Paper Social Marketing Intervention**

Raising Lawnmower Blade Height, Downspout Connections and Rain Sensor Installation

**NOTE: the layout of this survey will change depending on programming. The current layout allows us to ensure that all of the white paper areas are being covered. Many of the “agree/disagree” questions will be combined into a single table.**

**I. INTRODUCTION**

We are conducting a short public opinion poll to find out how people in Florida care for their homes and lawns. All of the answers given today will remain anonymous.

Please complete all of the questions appearing on each page. Always scroll down to make sure you have answered all of the questions provided before moving to the next page. When you are ready to move on to the next page, click the "Next" button located in the lower portion of the screen.

**II. SCREENER**

Let's begin by asking a few questions to see if this survey applies to you.

**1. What county do you live in? [limit based on SWFWMD district]**

- |                      |                            |                        |
|----------------------|----------------------------|------------------------|
| 1) Alachua           | 26) Hernando [North]       | 51) Pasco [Central]    |
| 2) Baker             | 27) Highlands [South]      | 52) Pinellas [Central] |
| 3) Bay               | 28) Hillsborough [Central] | 53) Polk [Central]     |
| 4) Bradford          | 29) Holmes                 | 54) Putnam             |
| 5) Brevard           | 30) Indian River           | 55) St. Johns          |
| 6) Broward           | 31) Jackson                | 56) St. Lucie          |
| 7) Calhoun           | 32) Jefferson              | 57) Santa Rosa         |
| 8) Charlotte [South] | 33) Lafayette              | 58) Sarasota [South]   |
| 9) Citrus [North]    | 34) Lake [North]           | 59) Seminole           |
| 10) Clay             | 35) Lee                    | 60) Sumter [North]     |
| 11) Collier          | 36) Leon                   | 61) Suwannee           |
| 12) Columbia         | 37) Levy [North]           | 62) Taylor             |
| 13) DeSoto [South]   | 38) Liberty                | 63) Union              |
| 14) Dixie            | 39) Madison                | 64) Volusia            |
| 15) Duval            | 40) Manatee [South]        | 65) Wakulla            |
| 16) Escambia         | 41) Marion [North]         | 66) Walton             |
| 17) Flagler          | 42) Martin                 | 67) Washington         |
| 18) Franklin         | 43) Miami-Dade             |                        |
| 19) Gadsden          | 44) Monroe                 |                        |
| 20) Gilchrist        | 45) Nassau                 |                        |
| 21) Glades           | 46) Okaloosa               |                        |
| 22) Gulf             | 47) Okeechobee             |                        |
| 23) Hamilton         | 48) Orange                 |                        |
| 24) Hardee [South]   | 49) Osceola                |                        |
| 25) Hendry           | 50) Palm Beach             |                        |

Sample Distribution:  
North: n=200  
Central: n=200  
South: n=200

**2. Do you perform minor repairs in your home?**

- a. Yes [SKIP TO Q4]
- b. No
- c. Refused

**3. Are minor home repairs performed by anyone else in your home?**

- a. Yes
- b. No

4. **How would you describe the current water resource conditions in your area? Water resources include lakes, rivers, streams, aquifers, wetlands and springs.**
  - a. In a drought
  - b. Drier than normal
  - c. Normal
  - d. Wetter than normal
  - e. Flooding
  
5. **Do you own or rent your home?**
  - a. Own
  - b. Rent
  - c. Live with a family member
  - d. Refused [THANK AND TERMINATE]
  
6. **Does your home have a lawn?**
  - a. Yes
  - b. No [THANK AND TERMINATE]
  
7. **Who cares for your lawn?**
  - a. I do
  - b. Spouse
  - c. Someone else in the home
  - d. Lawn service/gardener paid by household
  - e. Lawn service/gardener paid by others (landlord, apartment manager, maintenance fees etc.) [THANK AND TERMINATE]
  - f. No one [THANK AND TERMINATE]
  
8. **Who makes the majority of the decisions regarding the lawn care in your household?**
  - a. I do
  - b. My spouse
  - c. Joint decision
  - d. Someone else in the home
  - e. My lawn service/gardener paid by household
  - f. Lawn service/gardener paid by others
  - g. No one
  
9. **Is the water you use to water your lawn provided by a public utility or a well?**
  - a) Public Utility [go to Q10]
  - b) Well
  - c) Don't Know
  
10. **To your knowledge, is your water used for irrigation drinkable or is it "reclaimed" water? Reclaimed water, sometimes called recycled water or non-potable water, is former wastewater (sewage) that has been treated and purified for reuse. It can be used for irrigation and other uses.**
  - a) Drinkable
  - b) Reclaimed Water
  - c) Don't Know

**11. Below is a list of activities that you may have performed before. Please rate each one according to your perception of importance. A rating of 10 indicates it is EXTREMELY IMPORTANT, and a rating of 1 indicates that it is NOT AT ALL IMPORTANT.**

	<i>RANDOMIZE</i>	<i>RATING</i>
A	Making repairs around my home	
B	Paying bills	
C	Eating dinner with my family	
D	Running errands	
E	Finding time for myself	
F	Keeping my lawn mowed	
G	Maintaining my home's septic system or plumbing	
H	Fertilizing my lawn	
I	Picking up pet waste in my lawn	
J	Changing the oil in my personal vehicle	
K	Cleaning out my gutters	
L	Watering my lawn	
M	Installing energy-saving appliances in my home	

**Rain sensor installation**

**12. In general, how often do you typically water your lawn?**

- a. Once a month
- b. Every other week
- c. Once a week
- d. More than once a week
- e. Only during long periods without rain
- f. Never

**13. Which of the following best describes how you typically water your lawn:**

- a. Water the lawn with an automatic sprinkling system (set to a timer)
- b. Water the lawn with a manual sprinkling system (turn on the system when you want the lawn watered)
- c. Water the lawn with a garden hose
- d. Other [please state]

**14. A rain sensor is a water-saving device that shuts off the irrigation controller when activated by rainfall. Do you have a rain sensor installed on your house?**

- a. Yes
- b. No

**15. To the best of your knowledge, is your rain sensor working?**

- a. yes
- b. No

**16. Approximately when was your home built? [Type answer]**

**17. Thinking about your own household, please rate on a scale from one to 10, where 10 is STRONGLY AGREE and 1 is STRONGLY DISAGREE, how much you agree with the following statements.**

	<i>RANDOMIZE</i>	<i>RATING</i>
A	I know many people who have a rain sensor installed	
B	If it is my designated watering day, but there is rain in the forecast, I turn my irrigation system off	
C	I look for ways to decrease the cost of my home's utilities bills every month	
D	I knew a lot about rain sensors before taking this survey	
E	If it is my designated watering day, I water my lawn even after a recent rain	
F	I consider how much water my lawn will need when deciding how to landscape	
G	You can't water lawns too much in Florida	
H	I compare my water bills month to month to monitor my household water use	
I	My household uses more water outdoors than indoors	
J	Water is an abundant resource, there is no need to reduce our use of it	
K	My household uses too much water	
L	I have researched how often I should water my lawn	
M	My neighbors care about conserving water	
<b>If answered "No" on Question 14:</b>		
N	I would install a rain sensor if I received a rebate for doing so	
O	I am interested in installing a rain sensor	
P	Installing a rain sensor seems like an easy thing to do	
Q	I would have to hire someone to install a rain sensor at my house	
R	Knowing that a rain sensor costs between \$30 and \$50, I would still be interested in installing one	
<b>If answered "Yes" on Question 14:</b>		
S	I often check to see if my rain sensor is properly working	
T	I don't shut off my automatic sprinkler system when it rains	
U	I know my sprinkler system shuts off when it rains	

**18. Which of the following comes closest to describing your main source of information about how often you should water your lawn? [Rotate Answers]**

- a. Asking a friend or neighbor
- b. Reading books about lawn maintenance
- c. Reading magazine or newspaper articles about lawn maintenance
- d. Watching TV shows about lawn maintenance
- e. Guessing
- f. I follow the watering restrictions and water every day that I am allowed
- g. Look for signs that the yard needs water
- h. Asking an expert (i.e. Master Gardeners, landscape professional)
- i. Researching online
- j. I don't actively seek information about lawn maintenance

**Raising Blade Height**

**19. What type of grass do you have at your home? [Rotate Answers]**

- a. St. Augustine
- b. Bahia
- c. Empire Zoysia
- d. Bermuda
- e. Carpet
- f. Centipede
- g. Seashore Paspalum
- h. Don't know
- i. Other [Type answer]

**20. Do you own a lawnmower?**

- a. Yes
- b. No [GO TO Q23]

**21. Approximately how tall do you keep your grass? Please give your answer in inches [ Type answer].**

**22. Thinking about how you care for your lawn, please rate on a scale from one to 10, where 10 is Strongly Agree and 1 is Strongly Disagree, how much you agree with the following statements. [Read each factor and get rating]**

	<i>RANDOMIZE</i>	<i>RATING</i>
A	I fertilize my lawn less when my grass is long	
B	Keeping my grass cut short is important to me	
C	Regardless of how long my grass is, I always water my lawn with the same amount of water	
D	Changing the height of the blades on my lawnmower is easy	
E	I would be interested in seeing the results of a study that showed a correlation between water use and grass height	
F	The longer my grass is, the more I feel a need to cut it	
G	Up to a point, longer grass is healthier grass	
H	I cut my grass often because I worry about weeds growing on my lawn	
I	Longer grass makes a lawn look less attractive	
J	Raising the blade height on my lawnmower will keep my grass healthier	
K	Raising the blade height on my lawnmower is good for the environment	
L	Having a healthy lawn is important to me	
M	The appearance of a front lawn says something about the homeowner	
N	I regularly sharpen the blades on my lawnmower	
O	I am always looking for tips about keeping my lawn healthy and attractive	
P	I know the best height for my type of grass	
Q	When I cut my grass, I leave the clippings on the yard	

**Downspout Disconnection**

**23. A downspout is a vertical pipe that carries rainwater down from a roof gutter to ground level.**

**Based on this definition, does your house have a downspout?**

- a. Yes
- b. No [Skip to Q29]

**24. The water from my downspout is directed:**

- a. To a city storm drain
- b. To a city sewer system
- c. To a sealed rain barrel
- d. To a non-sealed rain barrel
- e. To my driveway
- f. To the street
- g. To a local body of water
- h. To my home's landscape
- i. Other [Type answer]
- j. I don't know

**25. In your area, water that flows into the street drains goes to:**

- a. The sewer system
- b. A water treatment facility
- c. A local body of water
- d. Underground storage to be used for irrigation
- e. Other [Type answer]
- f. Don't know

**26. A rain barrel is a container that collects and stores rainwater from your rooftop for later use on your lawn, garden or other outdoor uses. Based on this definition, do you have a rain barrel on your property?**

- a. Yes
- b. No
- c. Don't know

**27. Please rate on a scale from one to 10, where 10 is Strongly Agree and 1 is Strongly Disagree, how much you agree with the following statements.**

	<i>RANDOMIZE</i>	<i>RATING</i>
A	I worry about water damage to my home	
B	Redirecting the water from my gutters into my home's landscape is good for the environment	
C	I save rainwater for later use in household chores such as washing the car and watering lawn	
D	I know how downspout connections work	
E	I highly recommend rain barrels to friends	
F	I worry about rain water flooding the storm drains in my neighborhood	
G	I am concerned that storm-flooding will impact the quality of our water	
H	Storing rainwater on my property is more of a nuisance than it's worth	
I	My neighbors use redirected rain water to water their lawns and gardens	
J	Rain barrels are only good for breeding mosquitoes and other bugs	
K	People who don't route their roof water into their landscape are water wasters	
L	It takes too much time to maintain a rain barrel	
M	Having a rain barrel on my property is a sign to my neighbors that I'm environmentally conscious	

**28. How much water would a rain barrel have to store for it to be worth it to install one at your home?**

- a) 10 gallons
- b) 20 gallons
- c) 30 gallons
- d) 40 gallons
- e) 50 gallons
- f) 60 gallons
- g) 70 gallons
- h) 80 gallons
- i) 90 gallons
- j) 100 gallons
- k) More than 100 gallons

**General questions**

**29. Florida-friendly landscapes protect Florida’s unique natural resources by conserving water, reducing waste and pollution, creating wildlife habitat, and preventing erosion. Any landscape can be Florida-friendly if it’s designed and cared for according to the nine Florida-friendly landscaping principles, which encourage individual expression of landscape beauty.**

**Have you ever heard of the term “Florida-friendly landscaping?”**

- a. Yes
- b. No
- c. Don't know

**30. How important are each of these factors in motivating you to use Florida-friendly landscaping?**

	Factor	Very Important	Somewhat Important	Not Very Important	Not Important At All	Don't Know
A	Finding "how-to" information in plant sections of stores					
B	Homeowner association recommends it					
C	Florida-friendly landscaping is more attractive					
D	It saves money on my water bill					
E	Knowing it will help protect local water resources					
F	Neighbors use it					

**31. How much do the following reasons prevent you from using Florida-friendly landscaping?**

	Factor	A lot	Somewhat	Not Very Much	Not At All	Don't Know
A	Cost of changing landscape					
B	I like my landscape the way it is					
C	Don't know the benefits of it					
D	The time to change my landscape					
E	Don't know where to learn about it					
F	Deed restrictions or homeowner association rules					
G	Neighbors do not use it					

**32. If you were looking for information about "Florida-friendly Landscaping" which of the web sites below would you be most likely to access? [Rotate]**

- a. FloridaYards.org
- b. WaterMatters.org
- c. SolutionsForYourLife.org
- d. RightPlantRightPlace.com
- e. FloridaFriendlyLandscaping.com

**33. Below is a list of various activities that use water in a home. Please rate each activity according to how much water you think each uses. A rating of 1 indicates the activity USES A MINIMAL AMOUNT OF WATER and a rating of 10 indicates the activity USES A CONSIDERABLE AMOUNT OF WATER.**

	FACTOR	RATING
A	Doing a full load of laundry	
B	Doing the dishes in the sink with the water running	
C	Running the Dishwasher with a full load of pots and pans	
D	Watering the lawn for a half hour using an in-ground irrigation system	
E	Taking a 10-minute shower with a regular showerhead	
F	Taking a 10-minute shower with a low-flow showerhead	
G	Brushing your teeth with the water running	
H	A toilet flush from a regular toilet	
I	A toilet flush from a low-volume toilet	
J	Watering the lawn for a half an hour using a garden hose	
K	Running water while shaving	
L	Filling the tub for a bath	
M	Washing a car with a hose	

**34. There are several issues listed below. Thinking about your own community, please rate the importance of each according to how they affect you and your neighbors. A rating of 1 is of LEAST IMPORTANCE and a rating of 10 is of MOST IMPORTANCE.**

**What is the importance of...**

	FACTOR	RATING
A	Protecting the water quality of our lakes, rivers and streams	
B	Protecting the quality of our drinking water	
D	Increasing safety from crime in our neighborhoods	
E	Improving the quality of life for families in our community	
F	Improving the quality of recycling programs	
G	Maintaining and increasing property values	
H	Protecting natural areas like woodlands and forests	
I	Reducing litter and improper garbage dumping	

**35. Now I want to ask you a little bit about yourself. On a scale from 1 to 10, where 10 means it DESCRIBES YOU VERY WELL and 1 means it DOESN'T DESCRIBE YOU AT ALL, Please rate how much the following statements describe you.**

		Rating
A	I am an environmentalist.	
B	I have a beautiful home.	
C	I am often influenced by my friends and family.	
D	I enjoy holding cook-outs in my yard.	
E	I am a lot like my neighbors.	
F	I like to entertain at my home.	
G	I seek recommendations on lawn care.	
H	I believe the state government is a good resource for lawn care information	
I	I care about local streams and rivers.	
J	I spend a lot of money beautifying my home.	
K	I am highly involved in my community.	



L	I weigh out all of my options before I make any decision.	
M	I make most of my own home repairs	

**Demographics**

**36. Do you have any children or grandchildren under the age of 18 who live in your home?**

1. Yes
2. No

**37. How long have you lived in your county?**

1. Less than 1 year
2. 1 to 5 years
3. 6 to 10 years
4. 11 to 15 years
5. 16 to 20 years
6. More than 20 years

**38. Do you live in Florida year-round?**

1. Yes
2. No

**39. What is your present employment status?**

1. Employed full-time
2. Employed part-time
3. Voluntarily not in the work force (in school; raising family, etc.)
4. Unemployed but not retired
5. Retired

**40. What is the highest level of education you have reached so far?**

1. Less than high school
2. High school graduate
3. Some college
4. College graduate
5. Advanced degree (Masters/Doctorate)

**41. In what range did your total household income fall during 2007?**

1. Less than \$25,000
2. \$25,001 to \$50,000
3. \$50,001 to \$75,000
4. \$75,001 to \$100,000
5. More than \$100,000
6. Decline to answer

**42. Do you consider yourself:**

1. Caucasian/White
2. African American/Black
3. Hispanic/Latino
4. Asian or Pacific Islander
5. Native American or Alaskan native
6. Mixed racial background
7. Other race
8. Decline to answer

**43. What is your current marital status?**

1. Single
2. Married
3. Divorced

4. Widowed
5. Decline to answer

**44. What year were you born? 19[number]**

**45. What is your gender?**

1. Male
2. Female
3. Decline to answer

**Closing statement:** Thank you for helping us with this research. Your answers will be used to help the State of Florida provide information to the citizens in your area about proper lawn care that will protect lakes, rivers, streams and Florida's watersheds.

## Survey 3: Instrument

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**White Paper Social Marketing Intervention**

Survey Three: Showerhead Replacement, Septic Systems and Used Motor Oil Disposal

**I. INTRODUCTION**

We are conducting a short public opinion poll to find out how people in Florida care for their homes and lawns. All of the answers given today will remain anonymous.

Please complete all of the questions appearing on each page. Always scroll down to make sure you have answered all of the questions provided before moving to the next page. When you are ready to move on to the next page, click the "Next" button located in the lower portion of the screen.

**II. SCREENER**

Let's begin by asking a few questions to see if this survey applies to you.

**1. What county do you live in? [limit based on SWFWMD district]**

- |                      |                            |                        |
|----------------------|----------------------------|------------------------|
| 1) Alachua           | 25) Hendry                 | 49) Osceola            |
| 2) Baker             | 26) Hernando [North]       | 50) Palm Beach         |
| 3) Bay               | 27) Highlands [South]      | 51) Pasco [Central]    |
| 4) Bradford          | 28) Hillsborough [Central] | 52) Pinellas [Central] |
| 5) Brevard           | 29) Holmes                 | 53) Polk [Central]     |
| 6) Broward           | 30) Indian River           | 54) Putnam             |
| 7) Calhoun           | 31) Jackson                | 55) St. Johns          |
| 8) Charlotte [South] | 32) Jefferson              | 56) St. Lucie          |
| 9) Citrus [North]    | 33) Lafayette              | 57) Santa Rosa         |
| 10) Clay             | 34) Lake [North]           | 58) Sarasota [South]   |
| 11) Collier          | 35) Lee                    | 59) Seminole           |
| 12) Columbia         | 36) Leon                   | 60) Sumter [North]     |
| 13) DeSoto [South]   | 37) Levy [North]           | 61) Suwannee           |
| 14) Dixie            | 38) Liberty                | 62) Taylor             |
| 15) Duval            | 39) Madison                | 63) Union              |
| 16) Escambia         | 40) Manatee [South]        | 64) Volusia            |
| 17) Flagler          | 41) Marion [North]         | 65) Wakulla            |
| 18) Franklin         | 42) Martin                 | 66) Walton             |
| 19) Gadsden          | 43) Miami-Dade             | 67) Washington         |
| 20) Gilchrist        | 44) Monroe                 |                        |
| 21) Glades           | 45) Nassau                 |                        |
| 22) Gulf             | 46) Okaloosa               |                        |
| 23) Hamilton         | 47) Okeechobee             |                        |
| 24) Hardee [South]   | 48) Orange                 |                        |

Sample Distribution:  
North: n=266  
Central: n=267  
South: n=266

**2. Who performs minor repairs in your home?**

- a. I do
- b. My spouse
- c. Someone else in my home
- d. A friend
- e. I pay someone to do it

3. Below is a list of activities that you and many people in your community may have performed before. Please rate each one according to your perception of importance. A rating of 10 indicates it is **EXTREMELY IMPORTANT**, and a rating of 1 indicates that it is **NOT AT ALL IMPORTANT**. [ROTATE CHOICES]

	<i>Activity</i>	<i>RATING</i>
A	Making repairs around my home	
B	Paying bills	
C	Eating dinner with my family	
D	Running errands	
E	Finding time for myself	
F	Keeping my lawn mowed	
G	Maintaining my home's septic system	
H	Fertilizing my lawn	
I	Picking up pet waste in my lawn	
J	Changing the oil in my personal vehicle	
K	Cleaning out my gutters	
L	Watering my lawn	
M	Installing water-saving appliances in my home	
N	Maintaining my home's plumbing	

4. In your opinion, how important are the following natural resources and environmental issues facing Central Florida today? [ROTATE CHOICES]

	Factor	Very Important	Somewhat Important	Not Very Important	Not Important At All	Don't Know
A	Water Quality					
B	Water Supply					
C	Air Quality					
D	Loss of wildlife habitat					
E	Quality of wetlands (areas that naturally are wet all or part of the year)					
F	Recycling of household products					
G	Urban sprawl					
H	Trash/Litter					
I	Global Warming					
J	Ozone Depletion					

5. How would you describe the current water resource conditions in your area? Water resources include lakes, rivers, streams, aquifers, wetlands and springs.

- a. In a drought
- b. Drier than normal
- c. Normal
- d. Wetter than normal
- e. Flooding

6. How concerned are you about water resources in Central Florida?

- a. Very Concerned
- b. Somewhat Concerned
- c. Not Very Concerned
- d. Not At All Concerned

7. In your opinion, what is the difference between a “drought” and a “water shortage”? [Open-ended]

**8. How likely would the following encourage you to save more water? [ROTATE CHOICES]**

	Factor	Very Likely	Somewhat Likely	Not Very Likely	Not At All Likely	Don't Know
A	A declared water shortage					
B	A declared drought					
C	Fear of running out of water					
D	Penalties for excessive water use					
E	Materials on how to save water					
F	Rebates for water saving appliances					
G	Cost of water					
H	Free household conservation kits					
I	Abnormally dry conditions					
J	A rainfall deficit					

**9. Please tell me how much you agree with the following statements. Please rate the following on a scale from one to 10, with 10 meaning STRONGLY AGREE and 1 meaning STRONGLY DISAGREE. [ROTATE CHOICES]**

	Statements	RATING
A	I believe there is a water shortage emergency in my part of the state.	
	I believe there is a drought in my part of the state.	
B	I am supportive of government actions such as tightened water restrictions as a means of addressing a water shortage problem.	
	I am supportive of government restrictions on watering my lawn to help conserve water.	

**10. Please tell me how likely you would be to take any of the following steps to conserve water:**

	Factor	Very Likely	Somewhat Likely	Not Very Likely	Not At All Likely	Already Doing	Don't Know
A	Repair water leaks promptly						
B	Run dishwasher and clothes washer only when full						
C	Follow lawn watering restrictions						
D	Limit water use while shaving, showering, etc.						
E	Have low flow showerheads						
F	Have low flow toilets						
G	Landscape with drought-tolerant plants						
H	Use flow restrictors on faucets.						

11. Below is a list of behaviors that may potentially impact the cost of your home’s utility bills. On a scale from 1 to 10, rate each behavior based on how much money it would save you on utility bill costs with 10 being SAVES A GREAT DEAL and 1 being DOES NOT SAVE AT ALL.

	<i>behaviors</i>	<i>RATING</i>
A	Turning off the lights every time you leave a room	
B	Installing energy-saving light bulbs	
C	Turning off the water faucet while you brush your teeth	
D	Taking shorter showers	
E	Unplugging appliances when they are not in use	
F	Hang-drying your laundry on a clothesline	
G	Taking cold showers	
H	Watering the lawn less	
I	Using drought-tolerant plants in your landscape	
J	Use low flow faucet aerators	
K	Turning off the air conditioner/heater while you are not at home	
L	Putting an object in the toilet tank to displace water	
M	Insulating doors and windows to maintain indoor temperatures	

12. When do you usually shop for a new showerhead for use in your home? **[Open-ended.]**

13. How long ago did you purchased a new showerhead for your home?

- a. Less than a year ago
- b. A year ago
- c. More than a year ago
- d. Never
- e. Not sure

14. A low flow showerhead is a water-saving showerhead that typically uses 2.5 gallons of water per minute (gpm) or less. Thinking about your own household, please rate on a scale from one to 10, where 10 is STRONGLY AGREE and 1 is STRONGLY DISAGREE, how much you agree with the following statements. **[Rotate]**

	<i>FACTOR</i>	<i>RATING</i>
A	I would install a low-flow showerhead in my home if someone else paid for it	
B	I would get a low-flow showerhead if someone else installed it	
C	I know many people who have low-flow showerheads in their homes	
D	I want my household to use less water	
E	I look for ways to decrease the cost of my home’s utilities bills every month	
F	I am interested in installing a low-flow showerhead in my home	
G	I knew a lot about low-flow showerheads before taking this survey	
H	Low-flow showerheads are easily found in stores	
I	Installing a new showerhead in my home is easy	
J	Low-flow showerheads are too expensive	
K	Determining which low-flow showerhead is right for my home is confusing	
L	Low flow showerheads perform no differently than high water-using models	
M	Strong water-pressure in the shower is important to me	
N	I would not enjoy showering with a low-flow showerhead	
O	Water conserving showerheads don’t have good enough water pressure	
P	There are better ways to save on my utility bills than reducing the amount of water my household uses every month	
Q	Water is an abundant resource, there is no need to reduce our use of it	
R	I would use a low-flow showerhead if someone else would install it for me	

**Septic tank maintenance [Do not show headings in the survey]**

15. Approximately what year was your home built? **[Open ended]**
16. Does your home have its own septic system?
- Yes
  - No **[Go to Q 25]**
  - I don't know **[Go to Q 25]**
17. Thinking of your septic system, please rate on a scale from one to 10, where 10 is **STRONGLY AGREE** and 1 is **STRONGLY DISAGREE**, how much you agree with the following statements. **[Rotate]**

	<i>FACTOR</i>	<i>RATING</i>
A	It's hard to tell if my septic system is working properly	
B	I regularly have my septic system inspected by a professional	
C	I don't receive enough information about septic system maintenance	
D	I don't have my septic system inspected as often as I should	
E	Septic system maintenance is costly, so I try to avoid it	
F	I only have my septic system inspected when there is a problem	
G	I rarely think about the condition of my septic system	
H	It is easy to find a professional to maintain my septic system	
I	My septic system has nothing to do with our drinking water	
J	There is no need to do anything with my septic system as long as there is no problem	
K	It is easy to find a professional to repair my septic system	
L	I plan for septic tank maintenance along with other home maintenance costs such as appliances and air conditioners.	

18. In your opinion, how often should your septic tank be inspected?
- Every 3 months
  - Every 6 months
  - Once a year
  - Once every 2 years
  - Once every 5 years
  - Once every 10 years
  - It doesn't need to be inspected
19. When was the last time your septic tank was inspected?
- 3 months ago
  - 6 months ago
  - 1 year ago
  - 2 years ago
  - Within 2-5 years ago
  - Within 5-10 years ago
  - Don't know
  - Never inspected
20. A. How much do you think it generally costs to have your septic tank inspected? **[Open ended – give dollar amount]**
21. In your opinion, how often should you have your septic tank pumped?
- Every 3 months
  - Every 6 months
  - Once a year
  - Once every 2 years
  - Once every 5 years
  - Once every 10 years
  - It doesn't need to be pumped unless there's a problem



22. **When was the last time your septic tank was pumped?**
- 3 months ago
  - 6 months ago
  - 1 year ago
  - 2 years ago
  - Within 2-5 years ago
  - Within 5-10 years ago
  - Don't know
  - Never pumped
23. **How much do you think it generally costs to have your septic tank pumped?**
24. **How do you get information about septic tank maintenance? Select all that apply:**
- Neighbors
  - Friends
  - Builders
  - Septic system professionals
  - Realtor
  - Government agencies (like the Southwest Florida Water Management District)
  - Parents
  - Online
  - Health Department
  - Decide maintenance schedule on your own
  - Other
  - I don't look for information about septic tank maintenance
  - I look for information about septic tank maintenance but I can't find any

**Used motor oil disposal [Do not show headings in the survey]**

25. **Do you own a car?**
- Yes
  - No [Go to Q 30]
26. **How do you get the motor oil in your car changed?**
- I do it myself
  - Someone else in my home does it
  - I ask a friend or family member to do it
  - I take it to a mechanic or oil changing facility
  - Other (please specify)
27. **How is the used motor oil disposed? [Open-ended]**
28. **Thinking about how you maintain your car, please rate the following on a scale from one to 10, with 10 meaning STRONGLY AGREE and 1 meaning STRONGLY DISAGREE.**

	<i>FACTOR</i>	<i>RATING</i>
A	It is important to always recycle used motor oil	
B	It is easy to recycle used motor oil	
C	It is easy to dispose of used motor oil properly	
D	In my community, there are no fines for illegal dumping of used motor oil	
E	In my community, there are no regulations against dumping of used motor oil	
F	The way I dispose of my used motor oil has nothing to do with our drinking water	
G	I do not know where to properly dispose of used motor oil	
H	I fully understand how to properly dispose of used motor oil	
I	Illegal dumping of used motor oil is a problem in my community	
J	When my car's oil is changed, I ensure that the oil is disposed of properly	
K	I would pay a small fee to ensure that my motor oil is properly disposed of	
L	I would pay whatever it cost to ensure that my motor oil is properly disposed of	
M	Illegal dumping laws concerning motor oil should be enforced more strictly in	

	my community	
N	There are no used motor oil dumping sites in/near my community	
O	It is fine to pour used oil in the storm drains on the street	
P	It is okay to pour out used oil in your yard	
Q	Most people I know dispose of their used motor oil only at legal dumping sites	

29. Have you ever been previously fined for the illegal dumping of used motor oil?
- Yes
  - No

**General questions [Do not show headings in the survey]**

30. Below is a list of various activities that use water in a home. Please rate each activity according to how much water you think each uses. A rating of 1 indicates the activity USES A MINIMAL AMOUNT OF WATER and a rating of 10 indicates the activity USES A CONSIDERABLE AMOUNT OF WATER. [ROTATE]

	FACTOR	RATING
A	Doing a full load of laundry	
B	Doing the dishes in the sink with the water running	
C	Running the dishwasher with a full load of pots and pans	
D	Watering the lawn for a half hour using an in-ground irrigation system	
E	Taking a 10-minute shower with a regular showerhead	
F	Taking a 10-minute shower with a low-flow showerhead	
G	Brushing your teeth with the water running	
H	A toilet flush from a regular toilet	
I	A toilet flush from a low-volume toilet	
J	Watering the lawn for a half an hour using a garden hose	
K	Running water while shaving	
L	Filling the tub for a bath	
M	Washing a car with a hose	

31. There are several issues listed below. Thinking about your own community, please rate the importance of each according to how they affect you and your neighbors. A rating of 1 is of LEAST IMPORTANCE and a rating of 10 is of MOST IMPORTANCE. [ROTATE CHOICES]

**What is the importance of...**

	FACTOR	RATING
A	Protecting the water quality of our lakes, rivers and streams	
B	Protecting the quality of our drinking water	
D	Increasing safety from crime in our neighborhoods	
E	Improving the quality of life for families in our community	
F	Improving the quality of recycling programs	
G	Maintaining and increasing property values	
H	Protecting natural areas like woodlands and forests	
I	Reducing litter and improper garbage dumping	

32. **Now I want to ask you a little bit about what kind of person you are. On a scale from 1 to 10, where 10 means it DESCRIBES YOU VERY WELL and 1 means it DOESN'T DESCRIBE YOU AT ALL, Please rate how much the following statements describe you. [ROTATE CHOICES]**

		Rating
A	I am an environmentalist.	
B	I have a beautiful home.	
C	I am often influenced by my friends and family.	
D	I enjoy holding cook-outs in my yard.	
E	I am a lot like my neighbors.	
F	I like to entertain at my home.	
G	I seek recommendations on lawn care.	
H	I believe the state government is a good resource for lawn care information	
I	I care about local streams and rivers.	
J	I spend a lot of money beautifying my home.	
K	I am highly involved in my community.	
L	I weigh out all of my options before I make any decision.	
M	I make most of my own home repairs	

**Demographics [Do not show headings in the survey]**

33. **How many children do you have in the following age categories?**

I don't have any children [Go to Q37]

0-5 years old [Enter Number] [Go to Q37 only if they answer this question and none of the others]

6-10 years old [Enter Number]

11-15 years old [Enter Number]

16-18 years old [Enter Number]

19-25 years old [Enter Number]

34. **Has your child ever brought home information about water conservation from school?**

- a. Yes
- b. No

35. **Which of the following environmental field trips has your child been on with his or her school?**

- a. Water quality monitoring at a lake
- b. Trip to the beach
- c. Trip to a spring
- d. Outdoor camping trip
- e. Tour of an environmental center
- f. Trip to a conservation land
- g. Canoe trip
- h. Other
- i. My child has never been on an environmental field trip
- j. Don't know

36. **What environmental activities has your child encouraged you to do, if any? [Open ended]**

37. **Have you ever been to a workshop at your local Extension office?**

- a. Yes
- b. No

38. **How long have you lived in your county?**

- a. Less than 1 year
- b. 1 to 5 years
- c. 6 to 10 years
- d. 11 to 15 years
- e. 16 to 20 years
- f. More than 20 years

- 39. Do you live in Florida year-round?**
- Yes
  - No
- 40. Do you own or rent your home?**
- Own
  - Rent
  - Live with a family member
  - Other – record answer
  - Refused
- 41. What is your present employment status?**
- Employed full-time
  - Employed part-time
  - Voluntarily not in the work force (in school; raising family, etc.)
  - Unemployed but not retired
  - Retired
- 42. What is the highest level of education you have reached so far?**
- Less than high school
  - High school graduate
  - Some college
  - College graduate
  - Advanced degree (Masters/Doctorate)
- 43. In what range did your total household income fall during 2007?**
- Less than \$25,000
  - \$25,001 to \$50,000
  - \$50,001 to \$75,000
  - \$75,001 to \$100,000
  - More than \$100,000
  - Decline to answer
- 44. Do you consider yourself:**
- Caucasian/White
  - African American/Black
  - Hispanic/Latino
  - Asian or Pacific Islander
  - Native American or Alaskan native
  - Mixed racial background
  - Other race
  - Decline to answer
- 45. What is your current marital status?**
- Single
  - Married
  - Divorced
  - Widowed
  - Decline to answer
- 46. What year were you born? 19[number]**
- 47. What is your gender?**
- Male
  - Female
  - Decline to answer

**Closing statement:** Thank you for helping us with this research. Your answers will be used to help the State of Florida provide information to the citizens in your area about proper lawn care that will protect lakes, rivers, streams and Florida's watersheds.