Report to
Florida Southwest Water Management District
[SWFWMD]

WATER KNOWLEDGE, ATTITUDES, AND PRACTICES OF WEST CENTRAL FLORIDA RESIDENTS 2004 SURVEY RESULTS

FINAL REPORT

May 24, 2005

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2004 SURVEY OF
WATER KNOWLEDGE, ATTITUDES, AND PRACTICES
OF WEST CENTRAL FLORIDA RESIDENTS

SECTION 1

STUDY APPROACH AND METHODOLOGY

The 2004 telephone survey of residents in the west central Florida region was based on the instrument developed and approach used by the SWFWMD in 2003. The Southwest Florida Water Management District (SWFWMD) wanted to update and compare information about residents' knowledge and attitudes about water management.

The Survey Instrument. The survey instrument contained most of the questions developed in 2003. Appendix A contains the survey instrument. A few modifications, however, were made to the 2003 instrument for the 2004 survey:

Questions Added:

- Importance of various environmental and natural resource issues;
- Level of concern about water resources in central Florida;
- How pet owners dispose of pet waste;
- How residents with lawns maintain their lawns;
- If there was support to protect watersheds by determining water rates.

In addition to adding questions, some screening edits that were not in place during the 2003 fieldwork were also included. Only those who responded they heard of SWFWMD were asked the battery of questions about its responsibilities and performance.

Sample Design. In order to obtain information and opinions from residents throughout the region served, the SWFWMD was broken into the same three areas surveyed in 2003:

Residents Surveyed in:

- Northern Area—Citrus, Hernando, Pasco, and Sumter counties
- Central Area—(Tampa Bay) Hillsborough and Pinellas counties
- Southern Area—Desoto, Manatee, Polk, and Sarasota counties

The sample design called for a stratified random digit dialing (RDD) approach to obtain approximately 200 completed interviews in each of the areas. This design would allow some comparisons among the areas residents concerning their knowledge and attitudes. A sample of randomly generated telephone numbers for each area was purchased from Survey Sampling, Inc., a professional sampling company. In a RDD sampling frame, a large proportion (around 40% or more) of the numbers are usually non-working, disconnected numbers, businesses and fax-lines in which there are no household residents. This approach, however, allows one to reach households that have unlisted numbers and can reduce some of the bias of just calling published telephone numbers.

Survey Fieldwork. The survey was planned to begin in the late summer or fall of 2004 but was postponed due to hurricanes that hit Florida and the survey areas during the scheduled period. Fieldwork started in mid-November 2004 but was suspended during the holiday period since it was increasingly difficult to find residents home and their cooperation

rate was decreasing. Fieldwork resumed in early January and was completed in February 2005.

Trained, paid, and supervised interviewers conducted the survey. The interview took about 14 minutes on the average to complete. At least 8 attempts to reach a potential respondent were made. These attempted calls were rotated through different periods of the day (day-time and night-time calls) as well as weekdays and weekends. This approach maximizes the chances of reaching a respondent. Both full-time and part-time residents 18 years old or older were eligible to participate in the survey. In 2004, a total of 608 interviews were completed:

Interviews Completed in :

- Northern area --203;
- Central area --203, and
- Southern area --202.

In 2003, 601 interviews, 200 in each area, were also completed.

Response Patterns. Interviewers dialed 6,536 different telephone numbers in order to complete 608 interviews. Table 1 displays the dispositions of these attempted calls by area. As in all random digit dialing (RDD) telephone surveys, a large proportion of the numbers were non- working. Overall, 51 percent of the attempted calls were either businesses or non-working numbers. The central area, (Tampa Bay), had the largest proportion of non-working numbers—59 percent. The northern area, which is more rural, had the smallest proportion of non-working numbers—42%. In the southern area, 50 percent of the numbers attempted were non-working.

Table 1. Disposition of Telephone Call Attempts

DISPOSITION OF TELEPHONE CALL ATTEMPTS	AREAS			District
	North	Central	South	
Household Contacts	**961**	**968**	**1,115**	**3,044**
Completions	203	203	202	608
Callbacks	4	7	1	12
Refusals	504	321	434	1,259
Answering Machines /No Answers	250	437	478	1,165
Non-Household Contacts	**760**	**1,472**	**1,260**	**3,492**
Non-working	616	1,264	1,041	2,921
Business	98	168	155	421
Not Eligible	46	40	64	150
Total Number of Phone Numbers Attempted	**1,721**	**2,440**	**2,375**	**6,536**

Survey Participation. It was difficult to get residents to participate in this survey. Part of the difficulty was breaking through the technical barriers such as call-blockers, caller identification, and other technical devices to actually reach a potential respondent that plagues any telephone survey effort. Refusals were high, as they were in 2003, for this survey. The length of the interview, lack of interest by potential participants in water issues and policies, suspicions about selling "water products" such as water softening systems, and decline of participation in phone surveys in general all played a role in refusals. The overall response rate for the 2004 survey was 20 percent (see Table 2). This was calculated using the most conservative response rate approach of the American Association for Public Opinion Research (AAPOR). The cooperation rate, (the number of completed interviews divided by the both those who refused and were interviewed,) was 33 percent for the District. Cooperation was the highest in the central area (39%)—Tampa Bay and lowest in the more rural northern area (29%).

Table 2. Refusal and Co-operation Rates

	AREAS			District
	North	Central	South	
RESPONSE RATE: # of Completions # of Household Contacts	**21%**	**21%**	**18%**	**20%**
COOPERATION RATE: # of Completions (# of Completions) + (# of Refusals)	**29%**	**39%**	**32%**	**33%**

Demographics of Survey Participants. The added questions about the level of concern and interest in water resource issues and policy indicated that the survey respondents had high levels of interest in these areas. The demographic characteristics of the respondents to the 2004 survey are summarized below. Appendix B contains more detailed information for each characteristic. Appendix C provides Area comparison for the demographic information as well as each 2004 survey question.

Housing Characteristics

- **Housing**. Two –thirds of the respondents (68%) lived in houses while 16% lived in apartments/ condominiums and 10% in trailers or manufactured homes.
- **Ownership**. 80% own their dwelling while 16 % of the respondents rent their dwelling.

Residency Characteristics

- **Residency Status**. Only 14 % of the respondents lived in Florida part of the year while 84 % consider themselves full-time residents.
- **Length of Time.** Over one-half of the respondents (54%) lived in the area (county) for ten years or more.

Demographic Characteristics

- **Gender**. A higher proportion of women (59%) participated in the survey than men (41%).
- **Age**. Only 7% of the respondents were under the age of 25. The other age categories were roughly the same: 25 to 44 years old (27%); 45 to 64 years old (33%); 65 and older (30%).
- **Education**. The respondents were about evenly split between those with a high school education or less (47%) and those holding a college or graduate degree (48%).
- **Marital Status**. About half (56%) of the respondents were married and 23% were single while 17% stated they were separated, divorced or widowed.
- **Ethnicity**. About three-fourths (77%) of the respondents are white, 6% African American, and 6% are Hispanic.
- **Income**. About 20 percent (19%) reported household incomes of less than $25,000; Respondents were fairly evenly distributed among the other income groups:
  $25,000--$34,999 (10%)
  $35,000--$49,000 (11%)
  $50,000--$74,99 (13%)
  $75,000+ (18%)

  Nearly one-third of respondents (30%) refused to give their household income.

Appendices Contain More Detailed Information. The Appendices contain the survey instrument and more detailed information by question. Appendix A contains the survey instrument. Tables comparing each question in the 2004 survey and how it compares to 2003 results can be found in Appendix B—2003 and 2004 Survey Results. Area comparisons for the 2004 survey items are located in Appendix C—2004 Area Comparisons.

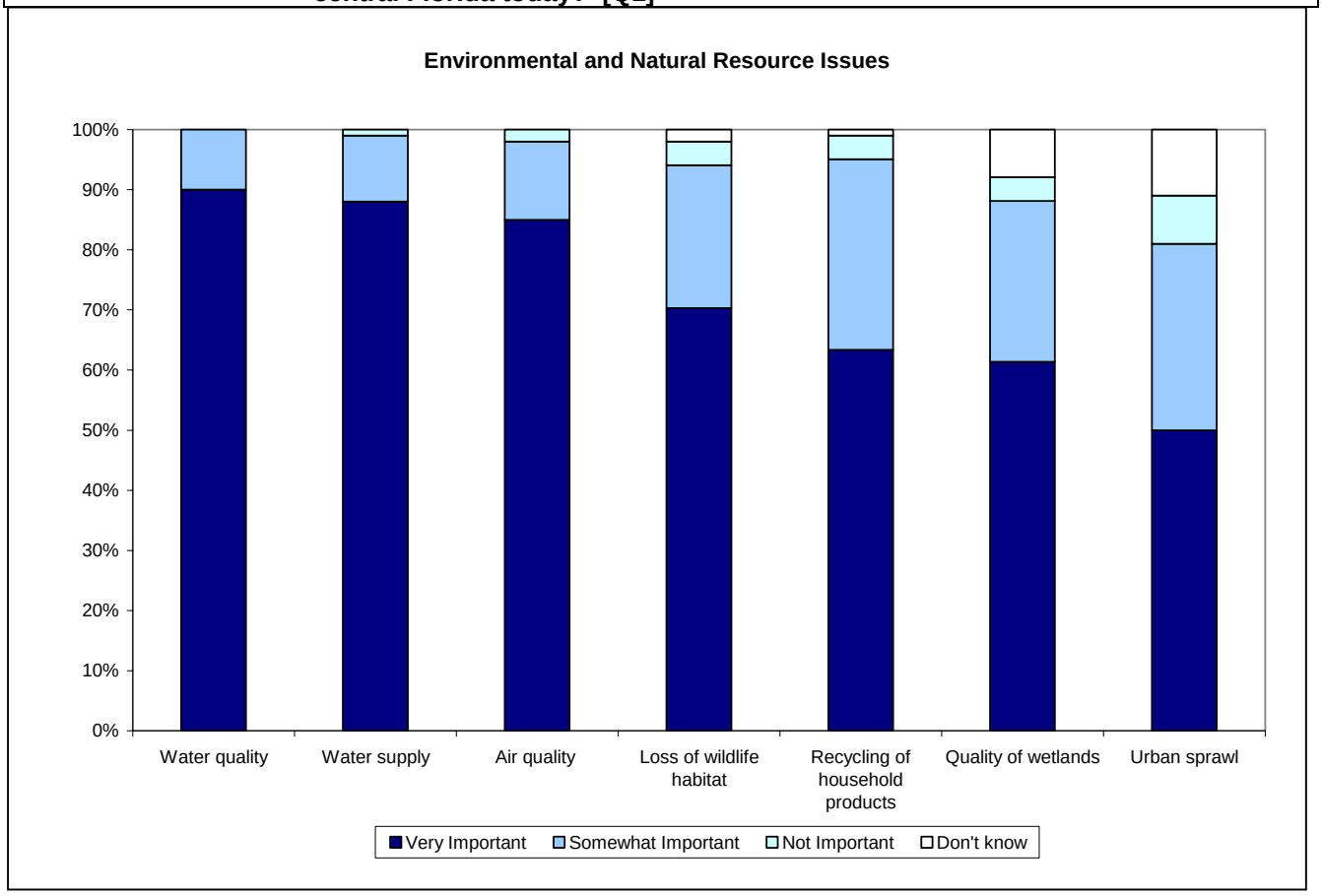
SECTION 2

WATER RESOURCES AND ISSUES: GENERAL CONCERNS AND ATTITUDES

Respondents thought water issues were very important and were concerned about water resources in central Florida. In order to compare the level of concern about water to other environmental concerns, respondents were asked about the importance of various natural resource and water issues facing central Florida. Water quality and water supply were cited by at least 88 percent of the respondents as "Very Important" (See Figure 1). In contrast, quality of wetlands was "Very Important" to only 62 percent of those surveyed. Air quality (85%), loss of wildlife habitat (71%), and recycling (64%) issues were rated as "Very Important" by over half of the respondents. Urban sprawl was less of a concern. Here only 50 percent deemed it as a very important issue facing central Florida.

Figure 1. Environmental and Natural Resource Issues

In your opinion, how important are the following natural resources and environmental issues facing central Florida today? [Q1]



Characteristics Affecting Ratings. It is important to determine if ratings vary by demographic characteristics of the respondents. The ratings of issues were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed.

- Women generally tend to rate most of the issues as "Very Important" at higher rates than men. Only when rating the quality of wetlands and urban sprawl issues, as "Very Important" gender did not make a difference.

- Water Quality.
  - Six percent more of the women rated water quality as "Very Important" than the male respondents.

- Water Supply.
  - Women (91%) were more likely than men (82%) to rate as "Very Important".
  - Respondents 45 and older (90%) were more likely to view water supply as "Very Important" than those under 45 years old (80%).

- Air Quality.
  - Six percent more of the women (87%) rated water quality as "Very Important" than the male respondents (81%).

- Loss of Wildlife Habitat.
  - Full-time residents (73%) were far more likely to rate loss of wildlife habitat as "Very Important" than part-time residents (57%).
  - Women (74%) were more likely than men (65%) to rate as "Very Important".

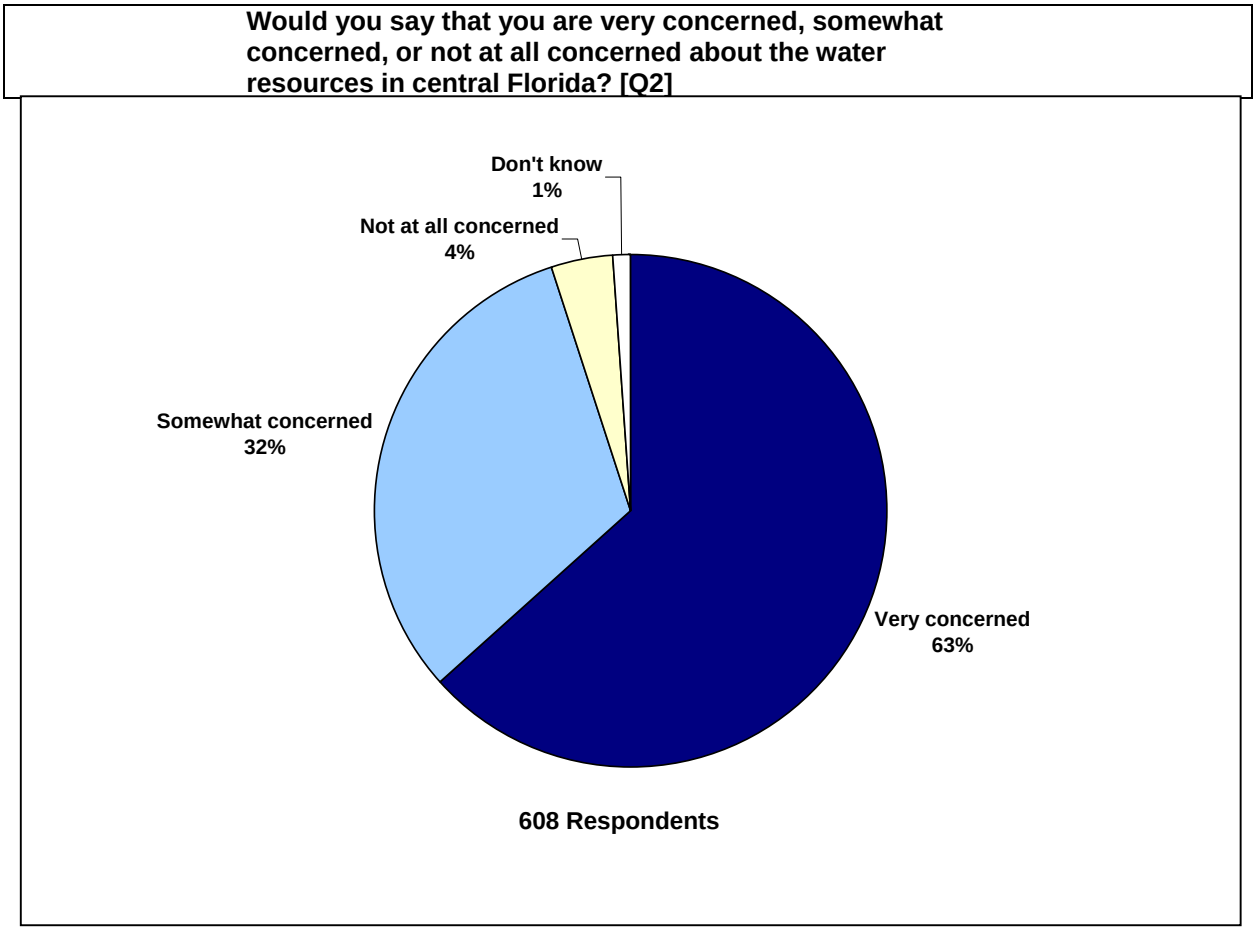
- Recycling Household Products.
  - Homeowners (66%) deem recycling household products as "Very Important" more than renters (55%).
  - Less than half (47%) of the respondents between the ages of 18 and 24 viewed recycling as "Very Important" while over half (60% to 67%) of those 25 to 65 and over felt this way.
  - Women (66%) were slightly more likely than men (59%) to rate as "Very Important".

- Quality of Wetlands.
  - There appeared to be no striking patterns of difference accounting for the "Very Important" rating of the quality of wetlands issue. Men and women tended to view the issue the same.

- Urban Sprawl.
  - Respondents who own the dwelling (53%) rate urban sprawl as "Very Important" more frequently than those who live in an apartment/condominium (38%).
  - Respondents who live in a house (53%) view urban sprawl as "Very Important" more frequently than those who rent their dwelling (36%).
  - Men and women tended to view the issue the same.

Those residents participating in the survey were concerned about water resources in central Florida. Nearly all of the respondents were at least somewhat concerned about the water resources in central Florida (see Figure 2). When asked, about two-thirds of the respondents were "Very Concerned" about the water resources in central Florida.

Figure 2. Concern about Water Resources in Central Florida



By examining the responses of the residents who stated they were "Very Concerned", a few differences among respondents were noted.

- Very Concerned about Water Quality.
  - As age increases, the percentage of respondents very concerned increases as well. Among the 18 to 25 age group, only 45 percent expressed they were very concerned about water quality. The percentage increases across age groups to 72 percent for those 65 and over.
  - Women (68%) were more likely than men (57%) to be "Very Concerned".

Respondents expressing high levels of concern about water resources also felt that there was a long-term water supply problem in west central Florida. In 2004, 61 percent of the respondents thought that there was a long-term water supply in west central Florida (see Figure 3). These respondents also tended to report that they were "Very Concerned" about water resources in Florida. The proportion of feeling there was a long-term problem dropped from the 2003 survey (61% vs. 75%).

Figure 3. Long-Term Water Supply Problem in Central Florida

Do we have a long-term water supply problem here in west central Florida? [Q4d]

	2004	2003
Yes	61%	75%
No	28%	18%
Don't Know	12%	7%

- "Yes" We Have A Long-Term Water Supply Problem.
  - Women (64%) tend to think there is a problem at higher rates than men (54%).
  - Respondents under 45 (54%) are less likely to feel there is a water supply problem then those 45 and over (64%)
  - Homeowners (63%) see a long-term water supply problem more than renters (49%).
  - There were no differences among the areas or by part-time residency status, income, or type of residence.
  - There were no differences among the areas concerning long-term water supply problem.
    [northern area (60%); central area (62%); southern area (60%)]

In 2004, the most respondents (80%) thought it was "Very Important" to preserve watersheds in the future. In 2003, 93 percent felt it was very important to preserve watersheds (see Figure 4). In 2004, only the age of the respondent seemed to affect this attitude. Attitudes towards watershed preservation did not differ based on type of housing, residency status, length of time in the area, educational level, home ownership, or gender.

Figure 4. Importance of Preserving Watersheds

In your opinion, how important is it to you to preserve watersheds for the future? [Q10]

	2004	2003
Very Important	80%	93%
Somewhat Important	18%	5%
Not Important	1%	1%
Don't Know	1%	1%

- "Very Important " – Preserve Watersheds in the Future.
  - Older respondents tend to view preserving watershed for the future as "Very Important" than younger ones.
    [45 years and older (85%) vs under 45 years old (72%)]

  - The views in the areas that preserving watersheds for the future as "Very Important" were similar.
    [northern area (77%); central area (80%); southern area (82%)]

In 2004, three-fourths of the respondents (74%) viewed water conservation as "Very Important". In 2003, 85 percent felt it was very important to conserve water (see Figure 5). In 2004, older respondents were more likely to feel this was than younger ones. Attitudes towards water conservation did not differ based on type of housing, residency status, length of time in the area, educational level, home ownership, or gender.

Figure 5. Importance of Water Conservation

How important is water conservation to you? [Q17]

	2004	2003
Very Important	74%	85%
Somewhat Important	25%	14%
Not Important	1%	1%
Don't Know	1%	1%

- "Very Important " – Water Conservation.
  - Older respondents tend to see water conservation as "Very Important" more often than younger respondents.
    [45 years and older (80%) vs under 45 years old (63%)]

  - The view that water conservation is "Very Important" was similar among the areas.
    [northern area (77%); central area (80%); southern area (82%)]

In 2004, a considerable majority of the respondents (60%) "Strongly Agree" or Agree" that healthy watersheds can coexist with continued population growth. In 2003, 70 percent of the respondents felt this way. (See Figure 6.) Once again, age was differentiated the responses. In 2004, younger respondents were more likely think that continued population growth and healthy watersheds could coexist. Views about the coexistence of population growth and healthy watersheds did not differ based on type of housing, residency status, length of time in the area, educational level, home ownership, or gender.

Figure 6. Growth and Watersheds

Continued population growth and healthy watersheds can coexist — [Q7]

	2004	2003
Strongly agree	15%	25%
Agree	45%	45%
Disagree	26%	17%
Strongly disagree	8%	9%
Don't Know	6%	4%

- "Strongly Agree "or "Agree" – Coexistence between Population Growth and Healthy Watersheds.
  - Younger respondents are nearly one-and-a- half more likely to believe that continued population growth and healthy water sheds can coexist than those 45 years old and older.
    [Under 45 years old (73%) vs 45 years and older (45%)]

  - The view that water conservation is "Very Important" was similar among the areas.
    [northern area (59%); central area (60%); southern area (62%)]

SECTION 3

KNOWLEDGE AND UNDERSTANDING OF WATERSHEDS AND WATERSHED PROTECTION

The survey sought to ascertain the level of knowledge and understanding the residents had in a number of areas:

- Definition of a watershed;
- Knowledge about their watershed;
- Importance attached to beauty, property values, recreational opportunities, and water quality effects of watersheds;
- Agencies providing watershed protection; and
- Impacts on watersheds.

Definition of Watershed

In 2004, a greater proportion of those surveyed reported they lived in a watershed than in 2003. Respondents were first asked which definition represents a watershed. There were some modifications on the 2004 survey in this area that makes it difficult to directly compare the changes. In 2003, each definition was rated; in 2004, the respondent was allowed only one answer. Over one-half of the 2004 respondents (59%) identified the correct definition of a watershed. However it should be noted that over one fourth of the respondents volunteered that they did not know the definition (see Figure 7)

Figure 7. Definition of Watershed

Which of the following represents a watershed? [Q3]

Definitions of Watershed	2004	2003 *
An area where all water drains into a common water body	59%	79%
Offshore region of Gulf of Mexico	7%	32%
A canal	7%	56%
Don't Know	27%	11%

*The 2003 question asked if each item was correct.

- Definition: An area where all water drains into a common water body.
  - Full-time residents (62%) were more likely than part-time residents (51%) to select this definition.
  - Respondents between 25 and 44 years old (65%) were the most likely to select the definition compared to those under 25 (38%) and over 65 (53%) years old.
  - Homeowners (62%) were more likely than renters (48%) to select the correct definition.
  - Respondents living in houses (62%) were more likely to select the definition than those in apartments, condominiums or trailers (53%).
  - As education increased, so did the proportion of respondents identifying the correct definition. [< High school (31%); High School/GED (51%); College Degree (70%); Graduate Degree (74%)]
  - Men (62%) and women (57%) tended to identify the correct definition at about the same rate.
  - The responses did not vary much among the three areas [northern (59%); central (63%); southern (55%)]

Knowledge of Watersheds

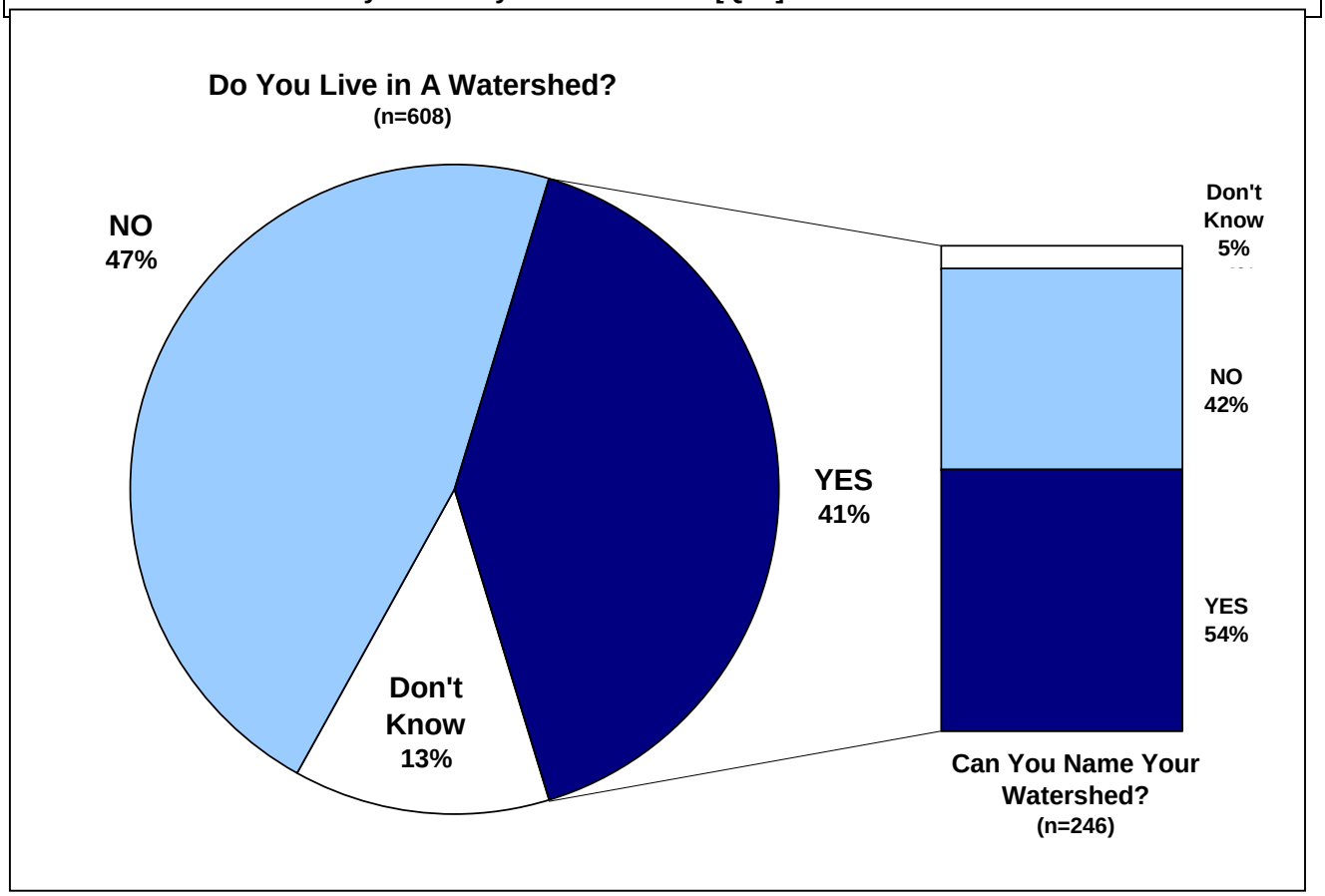
<u>In 2004, nearly one–half (41%) of the respondents thought they lived in a watershed compared to only one-quarter (26%) of the those surveyed in 2003</u>. Respondents were given a definition of a watershed and then asked if they lived in one. There were some modifications on the 2004 survey in this area. Only those who said they lived in a watershed were asked to name their watershed. In 2003, all respondents were asked the question. Of those in 2004 who said they lived in a watershed, over half (54%) were able to name it correctly. (see Figure 8)

Figure 8. Knowledge of Living in a Watershed

<u>DEFINITION:</u> A watershed is an area in which all water, sediments and dissolved materials drain from the land into a common body of water, such as a river lake or ocean.

Do You live in a watershed? [Q4a]

IF YES:
Can you name your watershed? [Q4b]



- "Yes", Live in A Watershed.
  - Respondents in the central area (53%) were more likely to state they lived in a watershed than those in the northern (33%) or southern (38%) areas.

  - Respondents 45 and older (41%) were more likely to say "Yes" than those under 45 years old (24%).

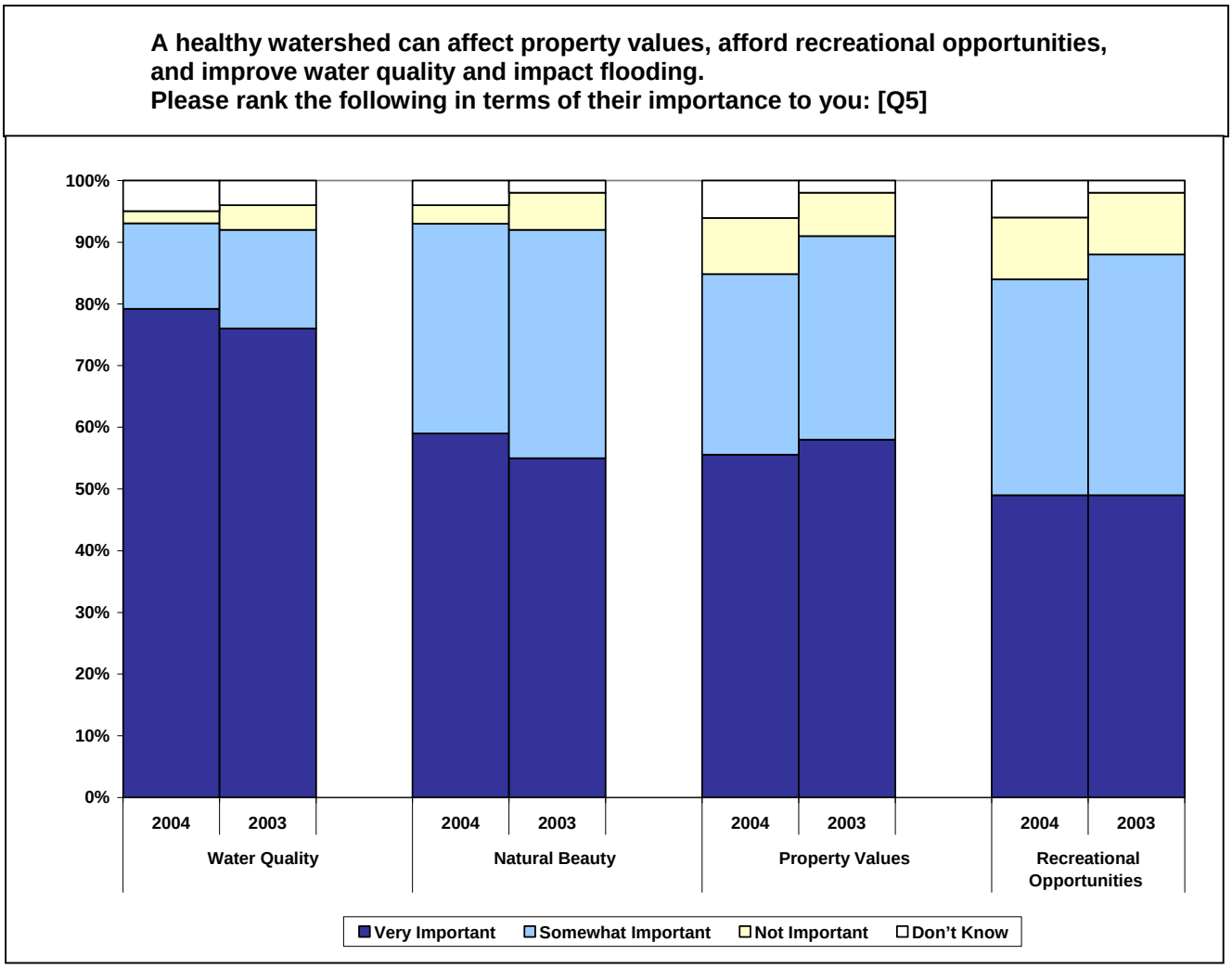
  - There were some differences due to education; most notably, those with graduate degrees were most likely to state they lived in a watershed. [< High school (33%); High School/GED (44%); College Degree (36%); Graduate Degree (49%)]

  - There was very little difference due to gender, part-time residency status, type of residence, or homeownership.

Importance of Watershed Effects

Most respondents believe that watershed health has an important effect on the quality of their surroundings and local resources, especially water quality. In 2004, 80 percent of the respondents rated the effects of watersheds on water quality as very important (see Figure 9). A majority also responded that they considered the effects of watersheds on visual aesthetics (59%) and property values (55%) as very important. Just less than half (49%) rated the impact of watersheds on recreational opportunities as important. These proportions and patterns mirrored the 2003 survey results.

Figure 9. Importance of Healthy Watershed



Characteristics Affecting Ratings. It is important to determine if ratings vary by demographic characteristics of the respondents. The ratings of effects of watersheds were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed.

- Water Quality—"Very Important".
  - Women (83%) were more likely than men (76%) to believe that water quality was "Very Important".
  - There were no other notable differences based on other demographic characteristics of the respondents.

- Natural Beauty—"Very Important"
  - Women (65%) were more likely than men (57%) to believe that natural beauty was "Very Important".
  - Respondents 45 years old and over (63%) were more likely to rate natural beauty as "Very Important" than those under 45 years old (51%).
  - Respondents in the southern area (56%) were the least likely while the northern area had the most respondents (63%) who viewed natural beauty as "Very Important". Sixty percent of respondents in the central area thought natural beauty was a very important effect of a healthy watershed.
  - Renters (66%) were slightly more likely to view natural beauty as "Very Important" than homeowners (58%).
  - Apartment/condominium residents (66%) were more likely to rate visual aesthetics as "Very Important" than those living in houses or trailers. (58%).
  - There were no other notable differences due to education, income, length of time in Florida, or part-time residency status.

- Property Values—"Very Important
  - Newer residents (61%), living in Florida five years or less, were more likely to view property values as a "Very Important" effect of a healthy watershed than those living in Florida more than five years (52%).

  - Respondents in the southern area (51%) were the least likely while the central area had the most respondents (59%) rate property values as "Very Important". Fifty-one percent of respondents in the southern area thought property values were very important effects of a healthy watershed.

  - There were no other notable differences due to gender, income, education, length of time in Florida, housing characteristics, ownership, or part-time residency status.

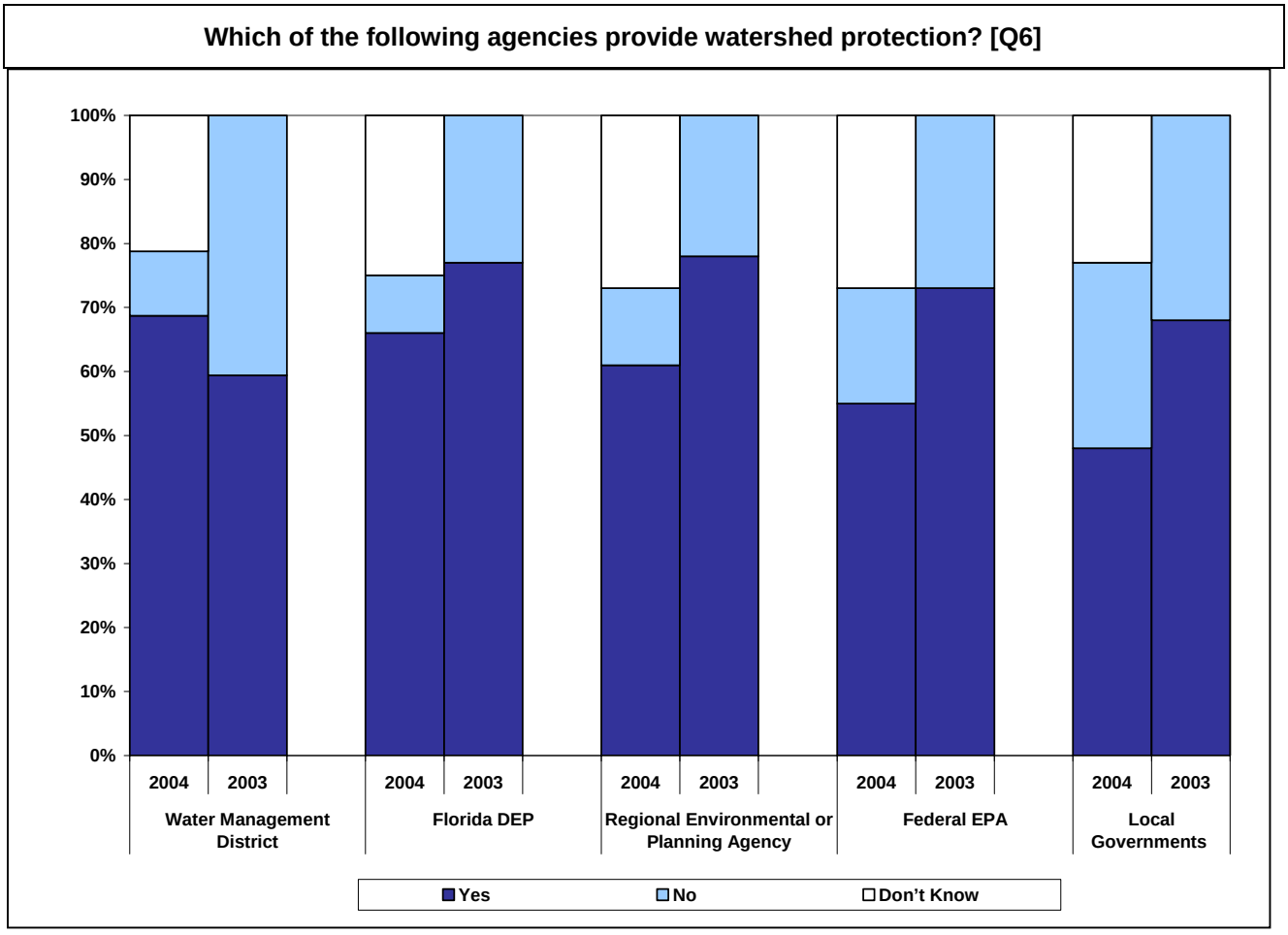
- Recreational Opportunities—"Very Important
  - There were no other notable differences due to any of the demographic characteristics: Gender, age, education, length of time in Florida, income, housing characteristics, ownership, or part-time residency status.

  - There was little regional variation in respondents rating recreational opportunities as "Very Important" effects of healthy watersheds. [northern area (48%); central area (53%); southern area (46%)]

Agencies Providing Watershed Protection

In 2004, the agency correctly identified as providing watershed protection by the largest proportion of survey respondents (68%) was a water management district. In 2003, only 60 percent identified a water management district as providing protection. A regional environmental or planning agency (73%) was cited the most in 2003. Respondents were asked whether or not five agencies provided watershed protection (see Figure 10). All of the agencies listed provide watershed protection. About 25 percent of the respondents reported that they did not know if the agency provided protection. The Florida Department of Environmental Protection (66%) and regional environmental or planning agencies (61%) were identified by over one-half of the respondents as providing watershed protection. They were less certain about the Federal Environmental Protection Agency (55%) and local governments (48%) roles in providing watershed protection.

Figure 10. Agencies and Watershed Protection



Characteristics Affecting Agency Responses. It is important to determine if there are any patterns associated with being able to correctly identify agencies as providing watershed protection. In many cases, there were no patterns found and high levels of the respondents indicating they did not know. The agency identifications were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed.

- Water Management District—""Yes", Provides Watershed Protection
  Unlike most of the other agencies listed, there were some demographic distinctions that emerged for those correctly identifying water a management district as agency providing watershed protection.

  - Full-time residents (70%) correctly identified water management districts at a higher rate than part-time residents (64%).

  - Older (73%) respondents, those 45 and older, were far more likely to identify water management districts as protecting the watershed than those under 45 (52%).

  - Respondents living in houses or trailers (71%) identified water management districts correctly at higher proportions than those living in apartments or condominiums (60%)

  - Identifying water management districts as agencies protecting the watershed did not differ by area. [northern area (68%); central area (68%); southern (69%)]

  - There were no other notable differences due to gender, income, education, length of time in Florida, housing characteristics, ownership, or part-time residency status.

- Florida Department of Environmental Protection (DEP)—"Yes", Provides Watershed Protection
  There were no demographic distinctions that emerged for those correctly identifying Florida DEP as agency providing watershed protection.

  - Respondents in the central area (72%) correctly identified Florida DEP the most frequently as providing watershed protection while respondents in the northern area (59%) identified Florida DEP the least. In the southern area, 65 percent correctly identified the Florida DEP as providing watershed protection.

- Regional Environmental or Planning Agencies— "Yes", Provides Watershed Protection
  There was only one demographic distinction that emerged for those correctly identifying regional or environmental planning agencies as providing watershed protection.

  - Respondents living in the county five years or less (58%) did not correctly identify regional or environmental planning agencies as providing watershed protection as frequently as those residing in the county more than five years (64%).

  - Respondents in the central area (65%) correctly identified regional or environmental planning agencies the most frequently as providing watershed protection while respondents in the northern area (55%) identified them the least. In the southern area, 63 percent correctly identified regional or environmental planning agencies as providing watershed protection.

- Federal Environmental Protection Agency (EPA)— "Yes", Provides Watershed Protection
  - Men (59%) were more likely to identify the Federal EPA correctly as providing watershed protection than women (53%).

  - Respondents with graduate degrees (66%) correctly identified the Federal EPA more frequently than did those at other educational levels (50%).

  - Respondents in the southern area (59%) correctly identified the Federal EPA the most frequently as providing watershed protection while respondents in the northern area (52%) identified them the least. In the central area, 55 percent correctly identified the Federal EPA as providing watershed protection.

- Local Governments— "Yes", Provides Watershed Protection
  There were no demographic distinctions that emerged for those correctly identifying regional or environmental planning agencies as providing watershed protection.

  - Respondents in the central area (55%) correctly identified local governments the most frequently as providing watershed protection while respondents in the northern area (43%) identified them the least. In the southern area, 46 percent correctly identified local governments as providing watershed protection.

Impacts on Watersheds

Over half (59%) of the 2004 survey respondents felt their actions can impact their watershed. This is a larger proportion of respondents recognizing that their actions have impact on watersheds than those surveyed in 2003. In 2003, less than half (49%) of the respondents that felt their actions had impact on watershed.

Figure 11. Actions and Impact on Watersheds

Does action you take have an impact on your watershed? [Q4c]

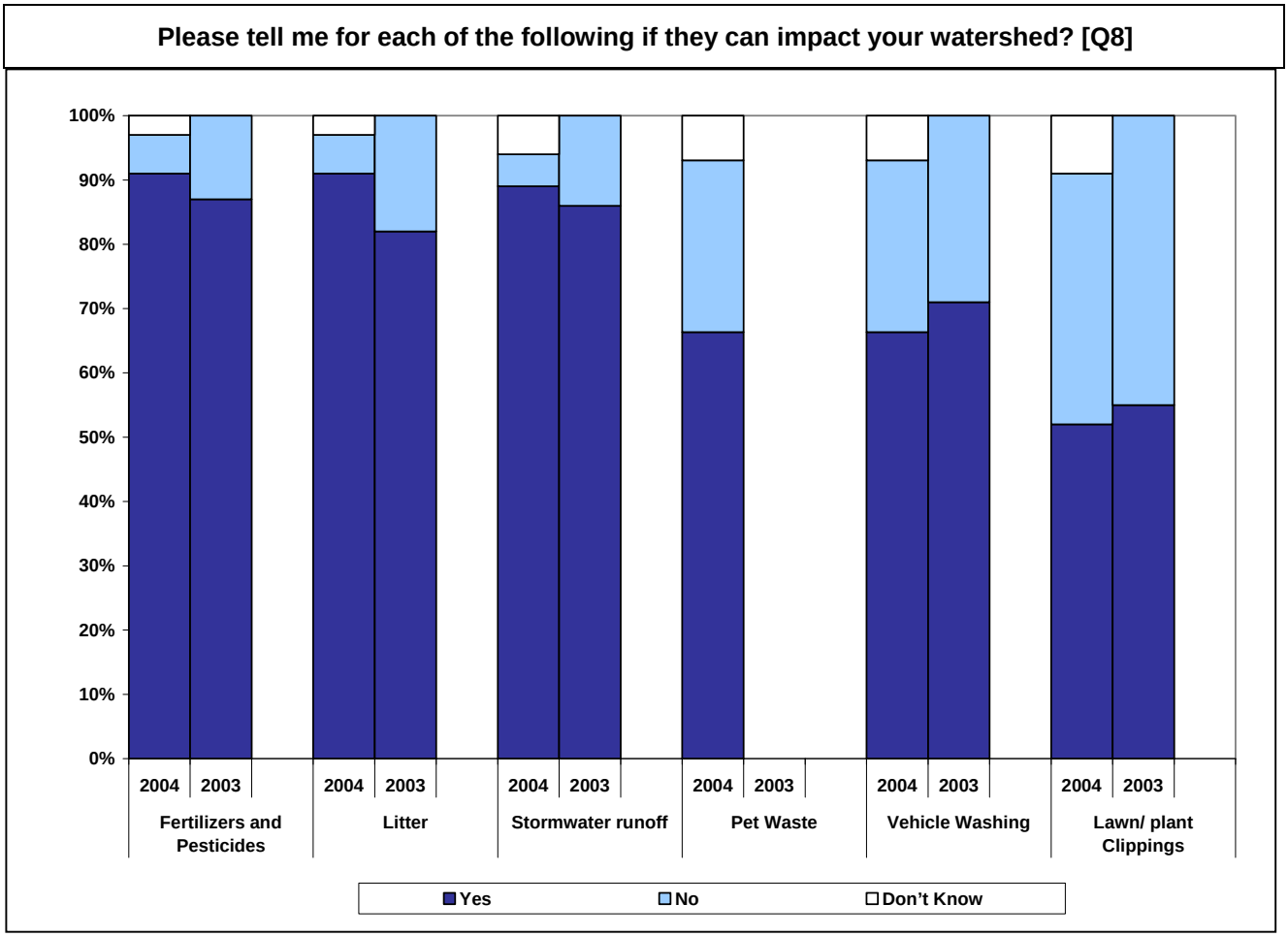
	2004	2003
Yes	59%	48%
No	28%	42%
Don't Know	13%	11%

By examining the responses of the residents who said, "Yes", their actions impact watersheds, a few differences among respondents were noted.

- Yes—Actions Impact My Watershed.
  - As age increases, the percentage of respondents thinking their actions have an impact on watersheds increases as well. Among the 18 to 25 age group, only 38 percent felt their actions had an impact. The percentage of those associating their actions to impacts on watersheds increases steadily across age groups to 72 percent for those 65 and over.
  - Respondents who owned their dwelling (60%) were more likely than renters (51%) to feel their actions have an impact on their watershed.
  - The respondents who felt their actions had an impact on watersheds did not vary much by region. [northern area (60%); central area (55%); southern (61%)]

In 2004, nearly all of the respondents thought fertilizers and pesticides (91%), litter (91%), and storm water runoff (89%) could impact their watershed; fewer thought pet waste (67%), vehicle washing (67%) and lawn or plant clippings (52%) had an impact. All of the items listed impact a watershed (see Figure 12). The 2004 results are similar to those reported in 2003. In 2004, pet waste was added to the list.

Figure 12. Impacts on Watersheds



Characteristics Associated with Actions Impacting Watersheds. It is important to determine if there are any patterns associated with being able to correctly identify actions that have an impact on watersheds. Even though there were large proportions correctly identifying fertilizers, litter and storm water runoff as actions that have an impact, some differences were observed based on demographic characteristics. The various actions were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed.

- Fertilizers and Pesticides — ”Yes”, Can Impact My Watershed
  Even though 91 percent of the respondents thought fertilizers and pesticides impacted a watershed, there were some differences among the respondents due to demographics.

  - Respondents living in houses or trailers (92%) were more likely to link using fertilizers and pesticides to impacts on watersheds than those living in an apartment or condominium (81%).

  - Owners (93%) were more likely to think fertilizers and pesticides have an impact on a watershed than renters (81%).

  - Men (94%) were slightly more apt than women (89%) to link fertilizers and pesticides to impacts on watersheds.

  - Respondents with a high school education or less (87%) were less likely to think pesticides and fertilizers impact watersheds than those holding college and graduate degrees (96%).

  - Identifying fertilizers and pesticides as having an impact on the watershed did not differ much by area. [northern area (89%); central area (94%); southern (90%)]

- Litter—“”Yes”, Can Impact My Watershed
  There were no discernable differences among the respondents due to demographics.

  - Identifying litter as having an impact on the watershed did not differ much by area. [northern area (90%); central area (94%); southern (90%)]

- Storm Water Runoff — ”Yes”, Can Impact My Watershed
  There were no discernable differences among the respondents due to demographics.

  - Identifying litter as having an impact on the watershed did not differ much by area. [northern area (87%); central area (91%); southern (89%)]

- Vehicle Washing — "Yes", Can Impact My Watershed
  - Respondents between 18 and 24 years old (79%) were far more likely to know that washing vehicles impacts a watershed than those twenty-five and older (66%).
  - Owners (69%) were a little more likely to think washing vehicles can have an impact on a watershed than renters (61%).
  - Full-time residents (69%) were more likely to link washing vehicles to impacts on watersheds than part-time residents (57%).
  - Men (67%) and women (67%) did not differ in the knowledge that washing vehicles impacts a watershed.
  - Respondents with a high school education or less (63%) were less likely to think washing vehicles impact watersheds than those holding college and graduate degrees (72%).
  - Identifying washing vehicles as having an impact on the watershed did not differ much by area. [northern area (66%); central area (70%); southern (65%)]
- Lawn/Plant Clippings — "Yes", Can Impact My Watershed
  - Respondents under the age of 45 (41%) were less likely to correctly identify that lawn and plant clippings can impact a watershed than those 45 and older (51%).
  - Owners (54%) were more likely to think lawn and plant clippings can have an impact on a watershed than renters (41%).
  - Full-time residents (53%) were more likely to identify lawn and plant clippings as having an impact on watersheds than part-time residents (44%).
  - Men (45%) were less likely than women (56%) that lawn and plant clippings have an impact on watersheds.
  - Identifying lawn and plant clippings as having an impact on the watershed did not differ much by area. [northern area (53%); central area (49%); southern area (65%)]

- Pet Waste — "Yes", Can Impact My Watershed
  - Respondents under the age of 45 (60%) were less likely to correctly identify that pet waste could impact a watershed than those 45 and older (71%).
  - Full-time residents (68%) were a little more likely to identify pet waste as having an impact on watersheds than part-time residents (61%).
  - Women (71%) were more likely than men (61%) to correctly identify that pet waste has an impact on watersheds.
  - Identifying pet waste as having an impact on the watershed does not differ by area. [northern area (67%); central area (67%); southern area (66%)]

Nearly two-thirds (61%) of the respondents report that they pick up their pet's waste and dispose of it in the garbage. Half of the respondents in the survey reported they had a pet (see Figure 13). While most dispose of their pet waste in the garbage, 26 percent said they leave it on the ground or bury it. These pet owners may consider pet waste as harmless or even beneficial organic material and may not be aware of the bacteria or other pathogens that can be released into the water from waste that is not properly disposed of.

Figure 13. Disposal of Pet Waste

Do you have a pet? [Q9]		
Yes	51%	
	How do you dispose of your pet's waste? (Number of Respondents =308)	
	Pickup and dispose of in garbage	62%
	Leave on ground	26%
	Other – Please specify	12%
No	49%	

- Pet Waste —"Pick-up and Dispose of in Garbage
  - Respondents under the age of 45 (56%) were less likely to correctly identify that pet waste should be disposed of in garbage than those 45 and older (68%).
  - Full-time residents (62%) were a little more likely to dispose of pet waste by picking it up and disposing of it in the garbage than part-time residents (55%).
  - Women (65%) were more likely than men (57%) to correctly identify that pet waste should be placed in the garbage.
  - Respondents living in the area five years or less (73%) were more apt to dispose of pet waste properly than those residing in the area more than 5 years (58%).
  - Respondents living in an apartment or condominium (75%) disposed of pet waste in the garbage more than those living in a house (60%).
  - Identifying pet waste as having an impact on the watershed does not differ by area. [northern area (60%); central area (65%); southern (61%)]

SECTION 4

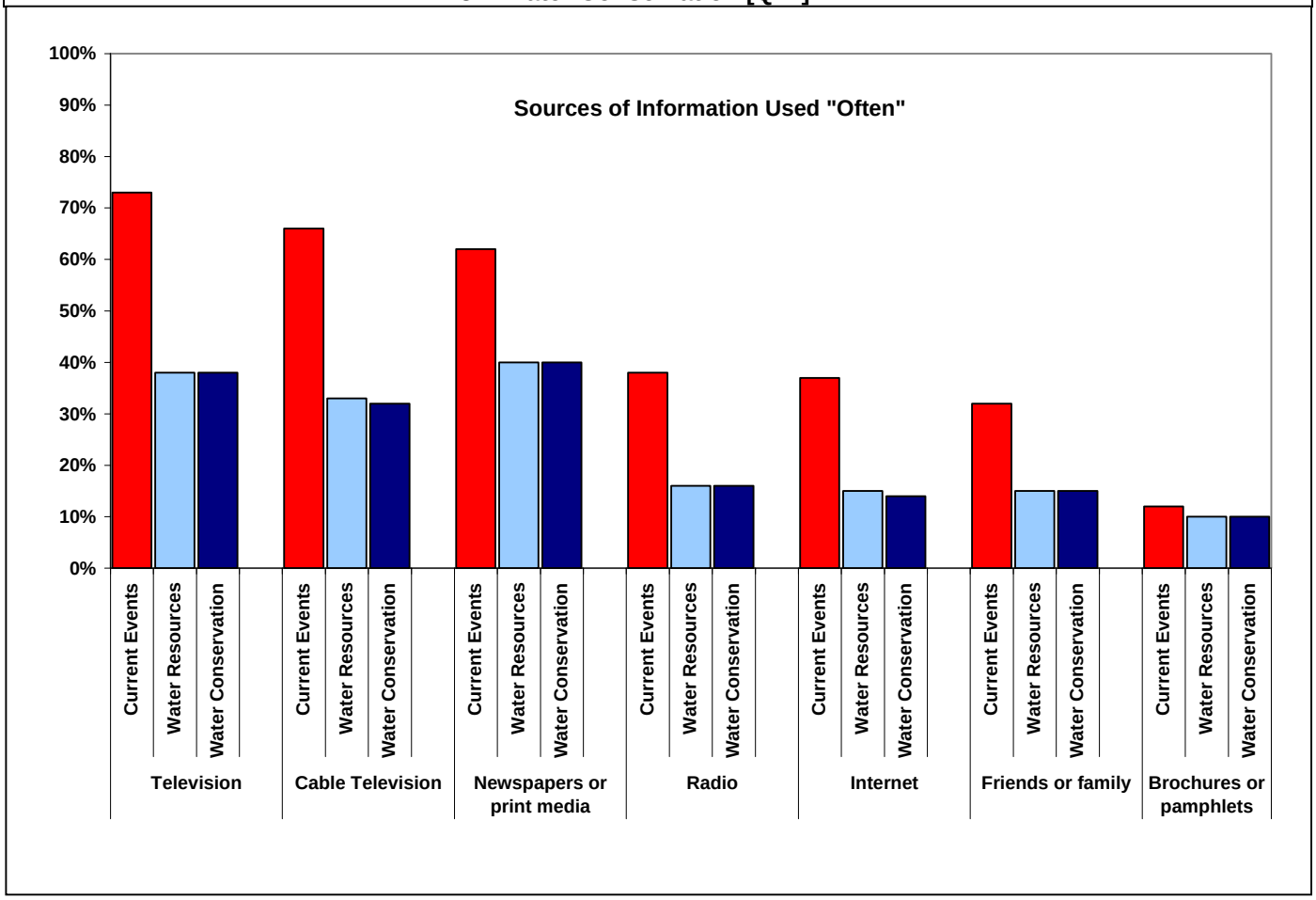
SOURCES OF INFORMATION

In 2004, respondents used television (73%) most often to obtain information about current events while using newspapers or other print media (40%) most often to obtain information about water resources and water conservation. There have been a couple of changes in media use between 2003 and 2004 (see Figure 14). In 2003, newspapers and other print media were used most often for information about current events rather than television as reported in 2004. In addition, there was increased use of family and friends as a source of information about current events between 2003 and 2004 (19% vs. 32%). The Internet was used more often in 2004 (37%) than in 2003 (26%) as a source for current events.

Figure 14. Sources of Information

How often do you use the following sources to receive information about . . .

- **Current Events [Q13]**
- **Water Resources [Q15]**
- **Water Conservation [Q21]**



The patterns and types of sources used for obtaining information about water conservation was similar to that used to gather information about water resources. There were few shifts concerning the source used most often for water resources or water conservation. One notable change was a doubling of the Internet use between 2003 (7%) and 2004 (14%) as a most often source for water resources information and water conservation.

Source of Information about Current Events

Characteristics Affecting Sources of Information for Current Events. It is important to determine if ratings vary by demographic characteristics of the respondents. The use of various information sources used "Often" were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed.

- Television/Cable Television — Use "Often".
  The patterns of using television and cable television were similar. Television was used most often to gather information about current events. Cable television was used a bit less often than television as a source of information for current events. Educational level did not affect using television/cable television as a source of information about current events.

  - Homeowners use television/cable television more often than renters.
    Television: Owners (74%) Renters (68%)
    Cable Television: Owners (68%) Renters (57%)

  - Respondents living in apartments or condominiums use television/cable television more than those in houses.
    Television: Apartment/Condominium (81%) House (71%)
    Cable Television: Apartment/Condominium (73%) House (65%)

  - Part-time residents use television/cable television more often than full-time residents.
    Television: Part-time Residents (81%) Full-Time Residents (72%)
    Cable Television: Part-time Residents (73%) Full-Time Residents (64%)

  - Older respondents (45 and over) use television/cable television more often than younger ones (under 45).
    Television: 45 Years and Over (77%) Under 45 Years (64%)
    Cable Television: 45 Years and Over (71%) Under 45 Years (58%)

  - There is not much difference among the regions for use of television/cable television for information about current events.
    Television: AREA: Northern (77%) Central (71%) Southern (70%)
    Cable Television: AREA: Northern (70%) Central (66%) Southern (61%)

- Newspapers and Other Print Media — Use "Often".
  - Homeowners (66%) use newspapers or other print media more often as a source of information about current events than renters (44%).
  - As educational level increases, the proportion using newspapers or other printed media also increases. [< High school (28%); High School/GED (59%); College Degree (67%); Graduate Degree (83%)]
  - Respondents over 45 (70%) use newspapers or other print media more often as a source of information about current events than those under 45 years old (49%).
  - There was no difference between men and women who used newspapers and printed media often to learn about current events.
  - Newspaper and printed media use did not differ by area. [northern area (61%); central area (64%); southern area (61%)]

- Radio — Use "Often".
  There were few patterns observed concerning the demographics of respondents using the radio often as a source for information about current events.
  - Younger respondents use the radio more as a source of information about current events than older respondents.
    [18-24 Years (48%) 25-64 Years (41%) 65 Years and Over (31%)
  - There were no differences found due to gender, residency status, ownership, type of dwelling, or education.
  - Respondents in the central area (45%) rely on the radio more than the northern (34%) and the southern (36%) for current event information.

- Internet — Use "Often".
  - Younger respondents use the Internet more as a source of information about current events than older respondents.
    [18-24 Years (55%) 25-64 Years (45%) 65 Years and Over (21%)
  - Full-time residents (39%) use the Internet more often as a source of information about current events than part-time residents (31%).
  - Men (43%) use the Internet more often then women (33%) as a source of information about current events.
  - Homeowners (39%) use the Internet more often as a source of information about current events than renters (30%).

- Respondents who live in the area five years or less (41%) were more likely to use the Internet often as a source for current events than those who lived in the area more than five years (35%).

- Respondents in the northern area (30%) used the Internet less than the central area (42%) and southern area (40%) residents.

- Friends and Family — Use "Often".
  - Full-time residents (33%) use family and friends more often as a source of information about current events than part-time residents (21%).

  - Women (33%) and men (29%) use family and friends as a source of information about current events at about the same rate.

  - Owners (40%) use family and friends more often as a source of information about current events than renters (30%).

  - Respondents who live in the area five years or less (26%) were less likely to use family and friends often as a source for current events than those who lived in the area more than five years (34%).

  - Respondents with a high school degree or less (28%) were less likely to rely on family and friends for information about current events than those with a college or graduate degree (35%).

  - Relying on friends and families for information about current events did not differ by area. [northern area (32%); central area (35%); southern (28%)]

- Brochures or pamphlets — Use "Often".
  There were few patterns observed concerning the demographics of respondents using the brochures or pamphlets often as a source for information about current events.
  - Respondents living in houses (9%) were less likely to use brochures or pamphlets as a source of information about current events than apartment or condominium respondents (19%).

  - Women (15%) are more likely than men (7%) to use brochures or pamphlets.

  - Respondents over 45 (14%) use brochures or pamphlets more often as a source of information about current events than those under 45 years old (7%).

  - Respondents in the southern area (7%) used the brochures or pamphlets less than the central area (16%) and southern area (13%) residents.

Sources of Information about Water Resources and Water Conservation

Characteristics Affecting Sources of Information for Water Resources and Water Conservation. Respondents were asked about sources of information they used to learn about water resources or water conservation. The distinction between the water resources and water conservation to some respondents could be confusing. To minimize the confusion, the questions about information sources for water conservation were asked later during the interview. The patterns of information sources used for both of these areas were similar. Newspapers, or other print media, television and cable television were the top three media used to obtain information about water resources and water conservation. Family and friends and the Internet were used about one-half as much which brochures or pamphlets were used the least. A few respondents indicated that information sent by the water department or in their water bills was an important source of information as well. It is important to determine if ratings vary by demographic characteristics of the respondents. The use of various information sources used "Often" were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed. The information sources for both water resources and water conservation are listed below.

- Newspapers and Other Print Media — Use "Often".
  - Owners tend to use newspapers or other print media more often as information source than renters.

Water Resources	Water Conservation
Owners (42%) vs. Renters (31%)	Owners (42%) vs. Renters (35%)

  - Those with a college or graduate degree were slightly more likely to use newspapers or other printed material as an information source than those with an educational level of high school or less.

Water Resources	Water Conservation
High School or less (37%) vs. College or Graduate Degree (44%)	High School or less (25%) vs. College or Graduate Degree (49%)

  - Respondents living in houses or mobile homes/trailers were slightly less likely to read newspapers or other print media than those living in apartments or condominiums.

Water Resources	Water Conservation
House/ Mobile Home (39%) vs. Apartment/ Condominium (49%)	House/ Mobile Home (38%) vs. Apartment/ Condominium (48%)

  - The central area respondents read newspapers or printed media more for information than did the northern and southern area respondents.

Water Resources	Water Conservation
Areas: Northern (37%) Central (48%) Southern (36%)	Areas: Northern (38%) Central (48%) Southern (35%)

- Television — Use "Often".
  Cable television appeared to have similar patterns of use as television when compared to television.
  - Respondents living in houses were slightly more likely to use television or cable television for water information than those living in apartments or condominiums.

Water Resources	Water Conservation
Television House (33%) vs. Apartment/ Condominium (52%) Cable Television House (30%) vs. Apartment/ Condominium (47%)	Television House (30%) vs. Apartment/ Condominium (43%) Cable Television House (34%) vs. Apartment/ Condominium (50%)

  - Those with a graduate degree were less likely to use television or cable television than respondents with an educational level of high school or less.

Water Resources	Water Conservation
Television College degree or less (22%) vs. Graduate Degree (41%) Cable Television College degree or less (22%) vs. Graduate Degree (36%)	Television College degree or less (27%) vs. Graduate Degree (42%) Cable Television College degree or less (27%) vs. Graduate Degree (37%)

  - Respondents 45 years old or older are more likely than those younger to use television or cable television as a source of information about water.

Water Resources	Water Conservation
Television Under 44 yrs (29%) vs 45 Yrs + years (43%) Cable Television Under 44 yrs (25%) vs 45 Yrs + years (39%)	Television Under 44 yrs (38%).vs 45 Yrs + years (22%) Cable Television Under 44 yrs (43%).vs 45 Yrs + years (29%)

  - Women use some form of television more than men as a source of water information.

Water Resources	Water Conservation
Television Women (42%) vs Men (32%) Cable Television Women (37%) vs Men (28%)	Television Women (42%) vs Men (32%) Cable Television Women (37%) vs Men (28%)

- The northern area used television less for water information than did the central and southern areas.

Water Resources	Water Conservation
Television Areas: Northern (32%) Central (40%) Southern (42%) Cable Television Television Areas: Northern (28%) Central (34%) Southern (38%)	Television Areas: Northern (37%) Central (48%) Southern (36%) Cable Television Television Areas: Northern (37%) Central (48%) Southern (36%)

- Radio — Use "Often".
  There were no patterns related to demographics found for using the radio to obtain information about water.
  - The central area used the radio to obtain information about water more for information than did the northern and southern areas.

Water Resources	Water Conservation
Areas: Northern (10%) Central (23%) Southern (15%)	Areas: Northern (11%) Central (24%) Southern (13%)

- Family and Friends — Use "Often".

  - Those residing in the area for more than five years said family and friends provided water information at slightly higher rates than those who were newer to the area.

Water Resources	Water Conservation
Live in area 5 yrs or < (8%) vs. Live in area +5 yrs (18%)	Live in area 5 yrs or < (9%) vs. Live in area +5 yrs (15%)

  - Women were more apt than men to rely on family and friends for information about water.

Water Resources	Water Conservation
Women (19%) vs Men (10%)	Women (18%) vs Men (10%)

  - The southern area relied the least on family and friends for water information.

Water Resources	Water Conservation
Areas: Northern (18%) Central (17%) Southern (11%)	Areas: Northern (17%) Central (18%) Southern (9%)

- Internet — Use “Often”.

  - Respondents 65 years old or older are less likely than those younger to the Internet as a source of information about water.

Water Resources	Water Conservation
Television Under 65 yrs (17%) vs 65 Yrs + years (9%)	Television Under 65 yrs (17%) vs 65 Yrs + years (8%)

  - The central area used the Internet to obtain information about water more than did the northern and southern areas.

Water Resources	Water Conservation
Areas: Northern (11%) Central (19%) Southern (15%)	Areas: Northern (12%) Central (18%) Southern (13%)

- Brochures and Pamphlets — Use “Often”.
  This was the method used least often used to obtain information. There were no patterns related to demographics that emerged.

  - The central area used brochures the most to obtain information about water more for information; the northern and southern areas used brochures about the same.

Water Resources	Water Conservation
Areas: Northern (7%) Central (14%) Southern (8%)	Areas: Northern (7%) Central (15%) Southern (7%)

ACTIONS AND MOTIVATORS FOR WATER CONSERVATION

A slight majority of the respondents believe that current water conservation rules are effective. Respondents were asked their opinion about whether current water conservation rules saved water. 2004 survey respondents expressed less confidence in the effectiveness of water conservation rules than respondents in 2003. In 2004, just over half (51%) of the respondents reported that they thought current water conservation rules saved water, compared to 63 percent in the 2003 survey. (See Figure 15). In 2004, about a third (32%) indicated that they did not think current rules were saving water and 17 percent said they did not know.

Figure 15. Current Water Conservation Rules

In your opinion, do you personally think that current water conservation rules are saving water? [Q 23]

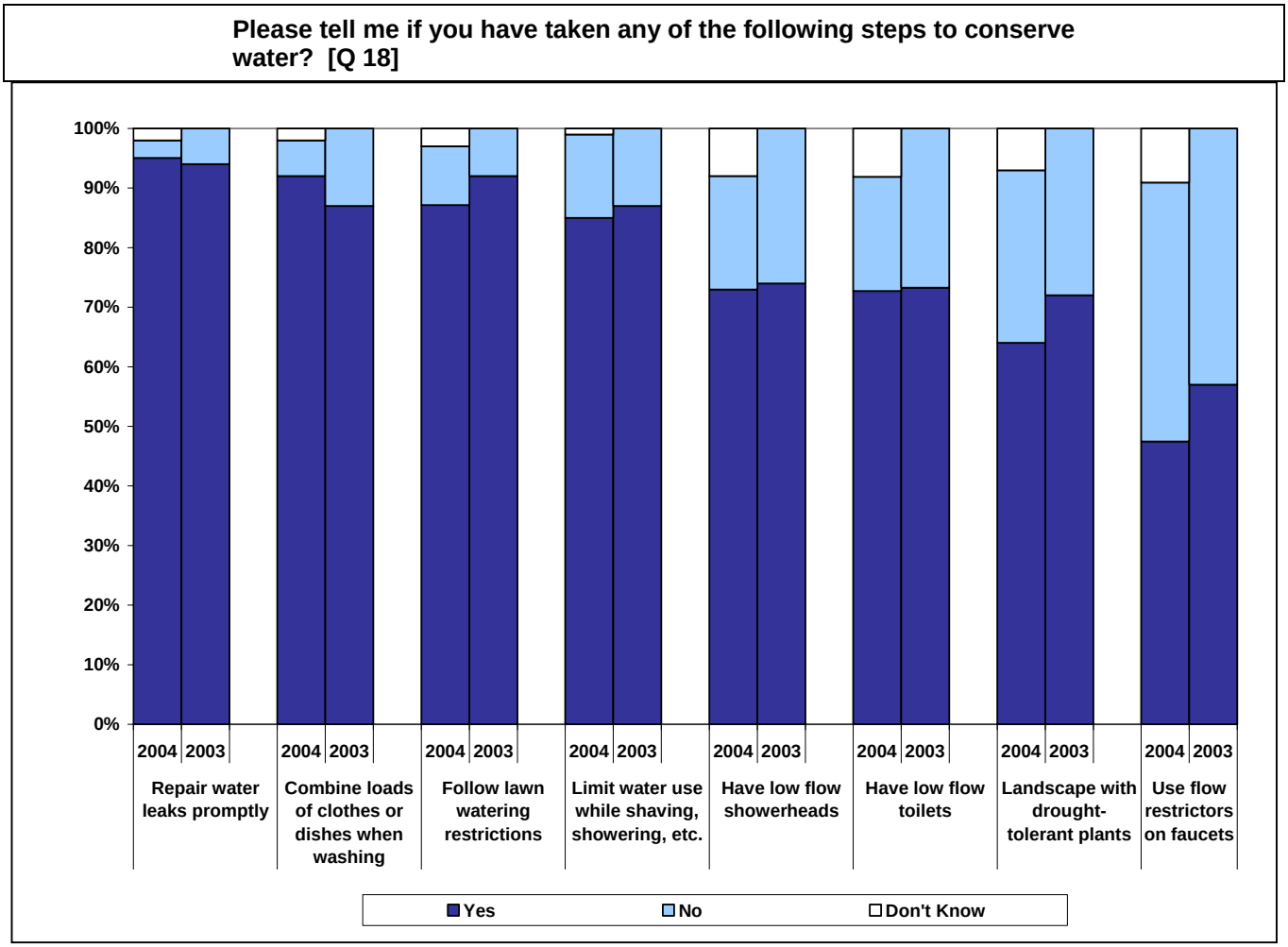
	2004	2003
Yes	51%	63%
No	32%	28%
Don't Know	17%	9%

An examination of the demographic characteristics of respondents who believed that current rules are saving water showed no notable differences. There was also little variation by area.

- In the southern area 54 percent of the respondents think that current water conservation rules are saving water. Fifty percent said “Yes” in both the central area and northern area.

Most water conservation practices are followed by a large majority of the respondents . Respondents were asked about their use of a number of water conservation practices (see Figure 16). Almost all of the 2004 survey respondents (96%) reported that they "repair water leaks promptly" and 92 percent said that they "combine loads of clothes and dishes when washing" (See Figure 14). Over 80 percent reported that they "follow lawn watering restrictions" and "limit water use while shaving or showering." Fewer respondents said that they used devices to restrict water flow. Seventy-three percent reported that they used low-flow showerheads and 72 percent reported that they used low-flow-toilets, while only 47 percent said that they used flow-restrictors on their faucets. Respondents were also asked if they landscaped with drought-tolerant plants and 64 percent said that they did. In the 2003 survey response rates for use of the different water conservation actions varied in a similar fashion, with most respondents (94%) saying that they "repair leaks promptly" and the fewest (57%) reporting that they "use flow restrictors on faucets."

Figure 16. Steps Taken To Conserve Water



Characteristics Affecting the Use of Steps to Conserve Water. The use of water conservation practices was examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed. The use of a number of water conservation practices varied to some extent by type of residence, home ownership, and gender. Demographic characteristics also accounted for variation in respondents' uncertainty about their use of water flow devices. The use of drought-tolerant plants was the only action that varied by region.

- Repair Water Leaks Promptly-"Yes" step taken.
  - No notable differences based on demographic characteristics or region were observed.

- Combine loads of clothes or dishes when washing-"Yes" step taken.
  - Homeowners (95%) were more likely to use this practice than renters (83%)
  - Women (94%) were slightly more likely than men (89%) to conserve water by combining loads of clothes or dishes.

- Follow lawn watering restrictions-"Yes" step taken.
  - 91 percent of respondents who live in houses or trailers/mobile homes were more likely to respond that they used this practice than those in apartments or condominiums (66%).
  - Homeowners (91%) were more likely to use this practice than renters (74%).
  - 90 percent of women, compared to 84% of men reported that they took this step.

- Limit water use while shaving, showering, etc.-"Yes" step taken.
  - No notable differences based on demographic characteristics or region were observed.

- Use of low-flow toilets-"Yes" step taken"
  - 75 percent of respondents who live in houses reported that they use low-flow toilets, compared to 60 percent who live in apartments or condominiums.
  - Respondents tended to be somewhat more uncertain about their use of water-saving devices than other water conservation measures. Eight percent said they did not know if they used low-flow toilets. 18 percent of respondents who replied that they rented their home gave a "don't know" response to this item, compared to 6 percent of homeowners.

- Use of low-flow showerheads-"Yes" step taken.
  - 76 percent of homeowners reported that they use low-flow showerheads, compared to 59 percent of renters.

- 8 percent of respondents gave a “don’t know” response to this item. A higher percentage of renters (14%) said that did not know about their use of this practice, compared to 7 percent of homeowners.

- Women (10%) were slightly more likely to say that they did not know about their use of low-flow showerheads, compared to 6% of men.

- Use of flow-restrictors on faucets-“Yes” step taken.
  - Over half of the men (52%) said that they used this device, compared to women (44%).

  - 9 percent of all respondents gave a “don’t know” response to this item. A slightly higher percentage of renters (17%) said that did not know about their use of this practice, compared to homeowners (8%)

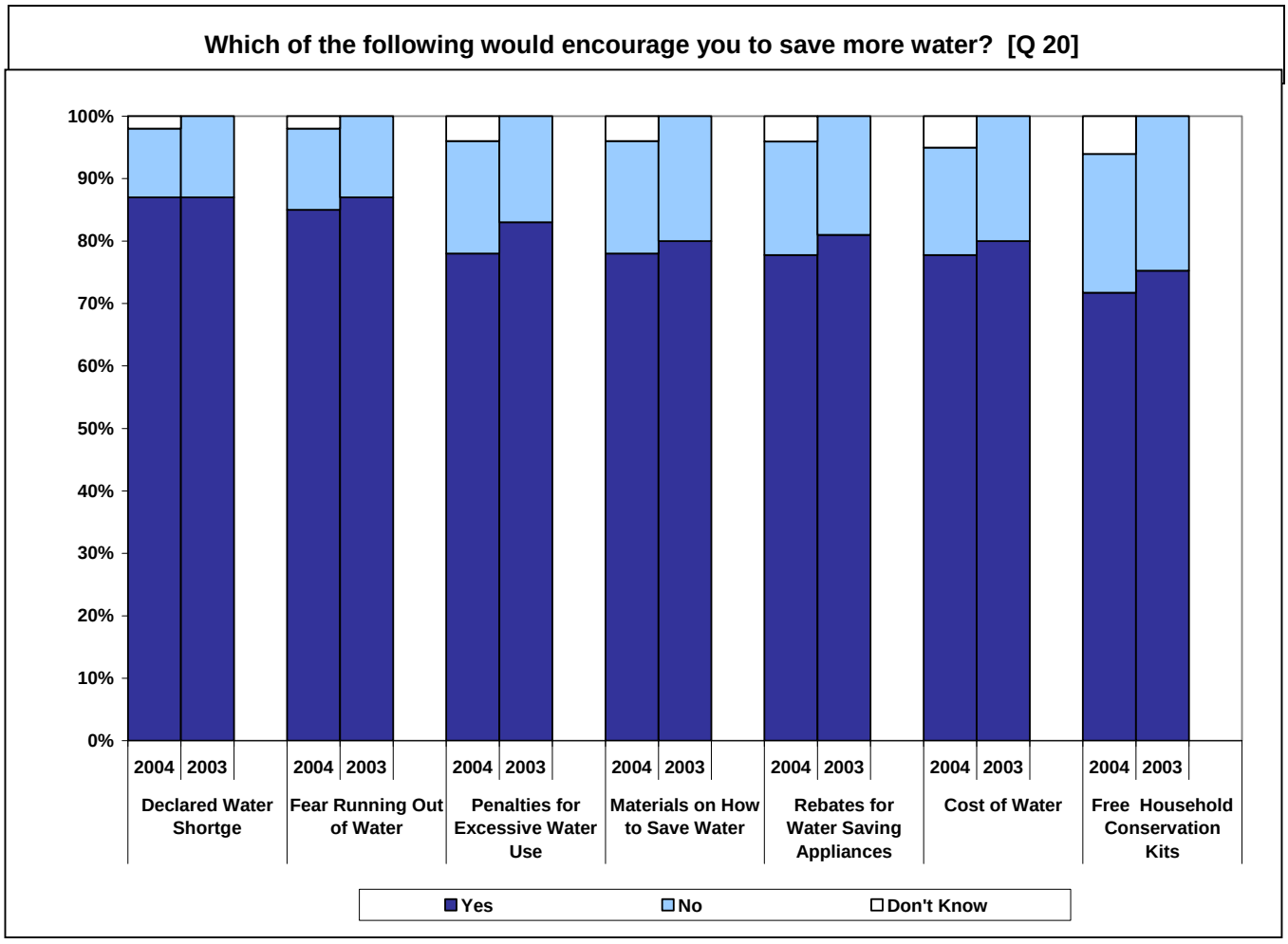
  - Women (12%) were slightly more likely to say that they did not know about their use of faucet flow-restrictors, compared to men (6%).

- Use of drought-tolerant plants-“Yes” step taken.
  - 68 percent of respondents who live in houses or trailers/mobile homes were more likely to respond that they landscaped with drought-tolerant plants than those who live in apartments or condominiums (41%.)

  - Use of drought-tolerant plants was the only water conservation practice for which the respondent’s region made much of a difference. Northern area residents (70%) were more likely to use this practice than those in the central area (63%) and the southern area (60%).

Over 80 percent of the respondents would be encouraged to save more water by a declared water shortage and fear of running out of water. A smaller majority reported that they would be encouraged by financial incentives and informational materials.
Respondents were asked what would encourage them to save more water. 87 percent responded that they would be encouraged by a declared water shortage and 85 percent said "fear of running out of water" (See Figure 17). 77 to 78 percent of respondents said that rebates, the cost of water, penalties for excessive water use, and materials on how to save water would motivate them to save more. Free household conservation kits were viewed as a motivator by 71 percent of the respondents. Response rates in 2003 were similar for "declared water shortage" (87%) and "fear of running out of water" (87%.) For the other factors the percentage of 2003 respondents who said "Yes" was slightly higher than in 2004.

Figure 17. Incentives to Save More Water



Characteristics Affecting What Would Encourage Respondents to Save More Water. Responses to what respondents said would encourage them to save more water were examined within categories of various demographic characteristics to see if any patterns emerged. Response rates varied to some extent by gender, age, homeownership, type of residence, and region. The following patterns were observed:

- Fear of Running out of Water-"Yes," would encourage
  - A slightly higher percentage of women (89%), compared to men (81%), said this would encourage them to save more water.

- Materials on How to Save Water-"Yes," would encourage .
  - Women (81%) were more likely than men (73%) to say that they would be encouraged by instructional materials to save water.

  - Respondents in the southern area (73%) were slightly less likely to say that instructional materials would encourage them than residents in the central area (80%) and those in the northern area (81%.)

- A Declared Water Shortage-"Yes," would encourage
  - A slightly higher percentage of homeowners (88%) than renters (83%) said that a declared shortage would encourage them to save more water.

- Free Household Conservation Kits-"Yes," would encourage .
  - Respondents sixty-five or older (62%) were least likely to say that conservation kits would encourage them to save more water. Seventy-three percent of respondents 45 to 64 years of age said conservation kits would encourage them; 80 percent of respondents 25 to 44 years of age; and 76 percent of respondents age 18-24.

  - Central area residents (76%) were more likely to be motivated by conservation kits than southern area residents (69%) and northern area residents (69%.)

- Penalties for Excessive Water Use-"Yes," would encourage
  - 81 percent of respondents living in houses, compared to 75% of those in apartments or condominiums or mobile homes (66%) said that penalties would encourage them.

  - Women (80%) were slightly more likely to say that penalties would motivate them than men (75%.)

  - Central area residents (83%) were more likely to be encouraged to save by penalties than residents in the northern (78%) and residents in the southern (72%)

- Cost of Water-"Yes," would encourage

- Cost of water was less likely to be an incentive for more elder seniors. 73 percent of respondents age 65 and older, compared to 79 percent of respondents age 25-64 and 88 percent of respondents age 18-24 who said that cost would encourage them.

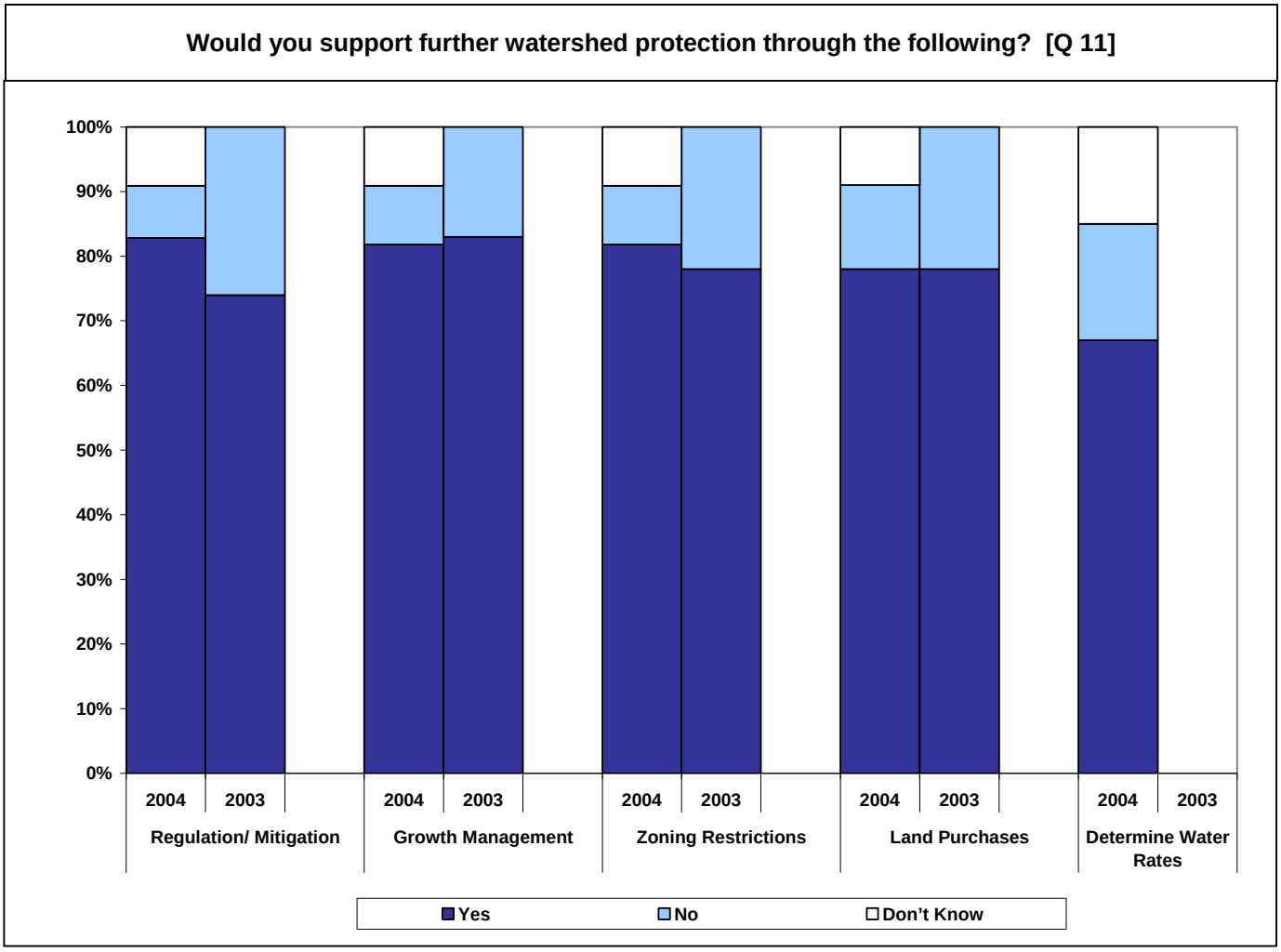
- 81 percent of central area residents said they would be encouraged to save by the cost of water, compared to those in the northern area (76%) and in the southern area (75%).

- <u>Rebates for Water Saving Appliances-"Yes," would encourage</u>
  - 80 percent of women said that rebates would be an incentive, while 72 percent of men said that rebates would encourage them to save.

Willingness to Support Watershed Protection

A majority of the respondents said they would support further watershed protection through each of the five measures mentioned . Respondents were asked if they would support various measures for watershed protection. Over 80 percent said they were in favor of "regulation/mitigation," "growth management," and "zoning restrictions" (See Figure 18). A smaller majority (78%) said they would support watershed protection through "land purchases " and "water rates" (67%.) Respondents were somewhat more likely to express uncertainty about this issue. Nine percent said they did not know about "regulation/mitigation," "growth management," "zoning restrictions," and "land purchases." Fifteen percent of respondents were uncertain about "determine water rates" as a way they would support further watershed protection. In 2003 a smaller percentage of respondents (74%) said they would support watershed protection through regulation/mitigation than in 2004. The percentages of 2003 respondents who said they would support the other measures were similar to those in 2004. Support for "determine water rates" was not asked of 2003 survey respondents.

Figure 18. Measures to Support Further Watershed Protection



Characteristics Affecting Support for Watershed Protection Measures. Responses related to support for further watershed protection were examined within categories of various demographic characteristics to see if any patterns emerged. Responses were also examined by the degree of importance respondents attributed to watershed preservation. From these analyses, the following patterns were observed:

- Zoning Restrictions-"Yes", would support
  - Homeowners (84%) said they would support watershed protection through zoning restrictions, compared to 74% of renters.
  - No notable differences in support for zoning restrictions were observed related to other demographic characteristics including, gender, type of dwelling unit, residential status, education, or age.
  - Support for zoning restrictions did not differ by area. [central area (82%); southern area (81%); northern area (81%)]
  - Support for this measure varied by the level of importance respondents attribute to the preservation of watersheds for the future. 85% of respondents who think watershed preservation is very important said they would support zoning restrictions, compared to 66% of those who said watershed preservation was somewhat important.

- Land Purchases-"Yes" would support
  - Respondents less than 45 years old (75%) were slightly more likely to support land purchases than respondents 45 and older (81%).
  - 83 percent of men said they would support land purchases, compared to 76% of women.
  - Support for land purchases was similar across regions with 75 percent of Central area residents saying "yes", compared to 79 percent Northern area residents and 80 percent of Southern area residents.
  - Support for this measure varied by the level of importance respondents attribute to the preservation of watersheds for the future. Eighty-one percent of respondents who think watershed preservation is very important said they would support land purchases, compared to 67 percent of those who said watershed preservation was somewhat important.

- Regulation/mitigation- "Yes" would support
  - Eighty-four percent of full-time Florida residents said they would support watershed preservation through regulation/mitigation, while 76 percent of part-time residents said they would.
  - Support varied somewhat by education level. Eighty-five percent of respondents with a college or graduate degree said they would support

watershed preservation through regulation/mitigation, compared to 80 percent of respondents with a high school degree or less.

- Support for this measure was similar across the three regions with 84 percent saying “Yes” in the northern area, 82 percent in the central area, and 81 percent in the southern area.

- Support for this measure varied by the level of importance respondents attribute to the preservation of watersheds for the future. 87 percent of respondents who think watershed preservation is very important said they would support land purchases, compared to 71 percent of those who said watershed preservation was somewhat important.

- Growth Management- “Yes” would support
  - There were no notable differences in respondents’ support of watershed preservation through growth management due to gender, type of dwelling unit, residential status, education, homeownership, or age.

  - Similarly, there were no notable differences across the three regions with 80 percent of respondents in the northern and central area who said “Yes” and 84 percent in the southern.

  - Support for this measure varied by the level of importance respondents attribute to the preservation of watersheds for the future. 85 percent of respondents who think watershed preservation is very important said they would support growth management, compared to 70 percent of those who said watershed preservation was somewhat important.

- Determine Water Rates- “Yes” would support
  - Sixty percent of part-time residents compared to 69 percent of full-time Florida residents would support this measure.

  - There were no notable differences across the three regions with 67 percent of respondents in the northern and central area who said “Yes” and 68 percent in the southern area.

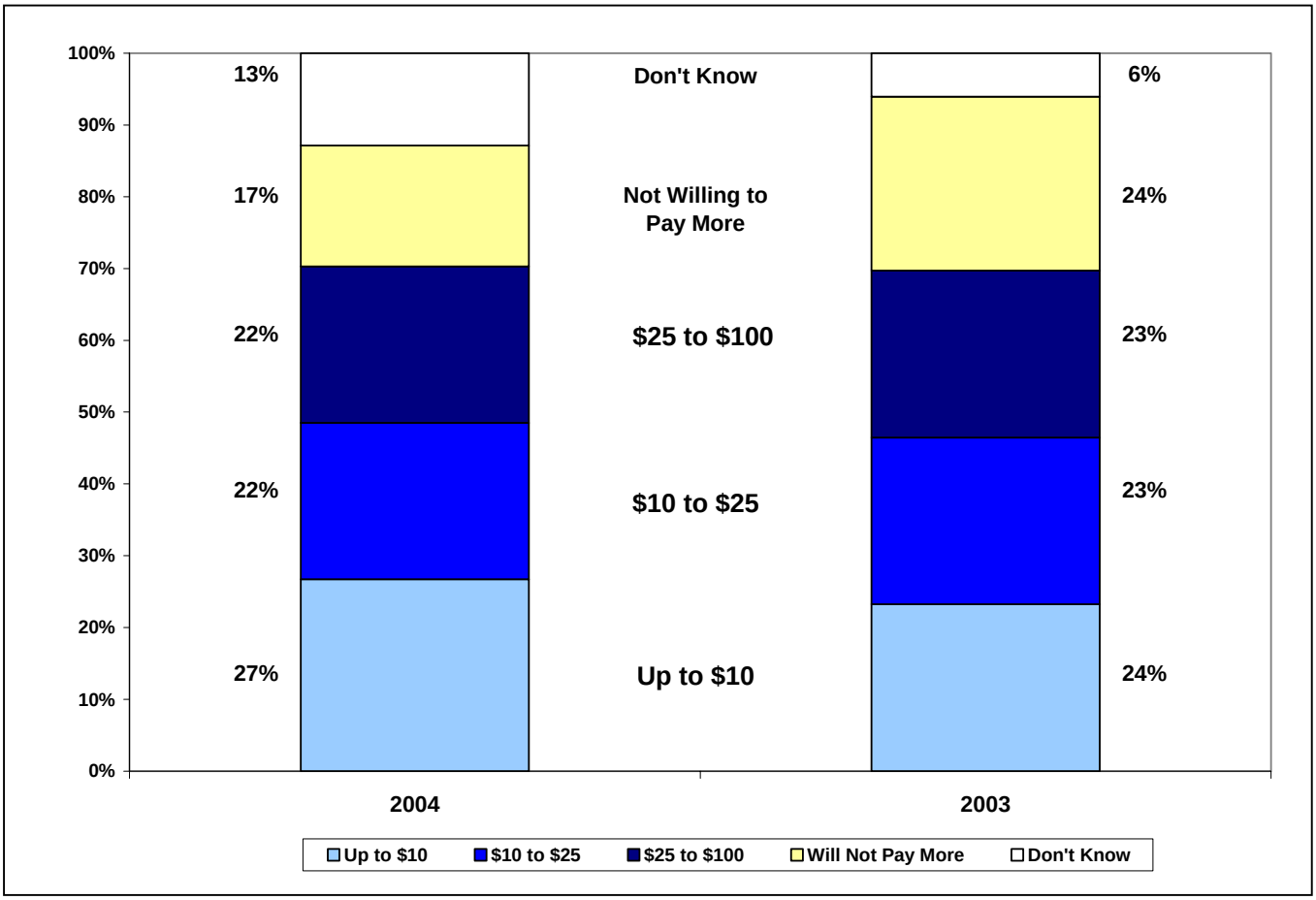
  - Support for this measure varied by the level of importance respondents attribute to the preservation of watersheds for the future. Seventy-two percent of respondents who think watershed preservation is very important said they would support this measure, compared to 53 percent of those who said watershed preservation was somewhat important.

Willingness to Pay

Compared to other actions respondents would take to protect watersheds, monetary support seems somewhat less popular among respondents. In 2004, a majority (71%) stated they would pay at least some additional amount, but only 22 percent said they would pay $25 or more and 17% were not willing to pay any more (see Figure 19). In 2003, the pattern was similar except a larger proportion of respondents (24%) were not willing to pay more. In 2004, 49 percent were wiling to pay at least $10 and 46 percent would pay at least $10 in 2003.

Figure 19. Willingness to Pay to Protect Watersheds

How much would you be wiling to pay additionally each year to protect watersheds? [Q 12]



Willingness to Pay.
There were no dominant patterns found when examining respondents' willingness to pay additional amounts for watershed protection due to demographic characteristics. Nor did the attitudes towards areas such as water conservation help predict the willingness to pay.

- Approximately 50 percent of the respondents regardless of area were willing to pay at least $10
  [northern area (49%); central area (51%); southern area (44%)].

- Slightly more respondents in the southern area (26%) were willing to pay between $25 and $100 for watershed protection compared to central (20%) and northern (19%) respondents.

- The proportion of respondents not willing to pay an additional amount for watershed protection was about the same in all of the areas.
  [northern area (18%); central area (17%); southern area (18%)].

SECTION 6

KNOWLEDGE OF SWFWMD AND RATINGS OF PERFORMANCE

In 2004. nearly two-thirds (62%) of those surveyed stated they had heard of the Southwest Florida Water Management District. About three-fourths of the survey respondents in 2003 heard of the SWFWMD. Figure 20 displays the question and responses. In 2004, those who said they heard of SWFWMD tended to be in the area longer, full-time residents, older, better educated and live in houses or trailers. There were no striking patterns concerning respondents' concern about the environment, preservation or other water resource issues that accounted for knowledge about the SWFWMD.

Figure 20.
Knowledge of Southwest Florida Water Management District [SWFWMD]

Have you ever heard of the Southwest Florida Water Management District? It is sometimes referred to as "Swiftmud. [Q24]

	2004	2003
Yes	62%	74%
No	34%	26%
Don't Know	4%	----

Characteristics Affecting Knowledge of SWFWMD. It is important to determine if there are any patterns associated with knowing about the SWFWMD. Responses were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed.

- Heard of SWFWMD — "Yes"

  - Older respondents were more likely to know about SWFWMD than younger ones.
    [Under 45Years (48%) vs. 45 Years and Over (71%)

  - Respondents residing in the area more than five years (70%) knew more about SWFWMD than those living in the area five years or less (45%).

  - Full-time residents (65%) knew about SWFWMD at higher rates than part-time residents (45%).

  - Apartment or condominium dwellers (54%) knew less about SWFWMD than those living in houses or trailers (64%).

  - Homeowners (66%) knew more about SWFWMD than renters (42%).

  - Respondents with more education knew about SWFWMD compared with those with high school educational levels or less.
    [College or Graduate degree (71%) vs. High School or less (58%)]

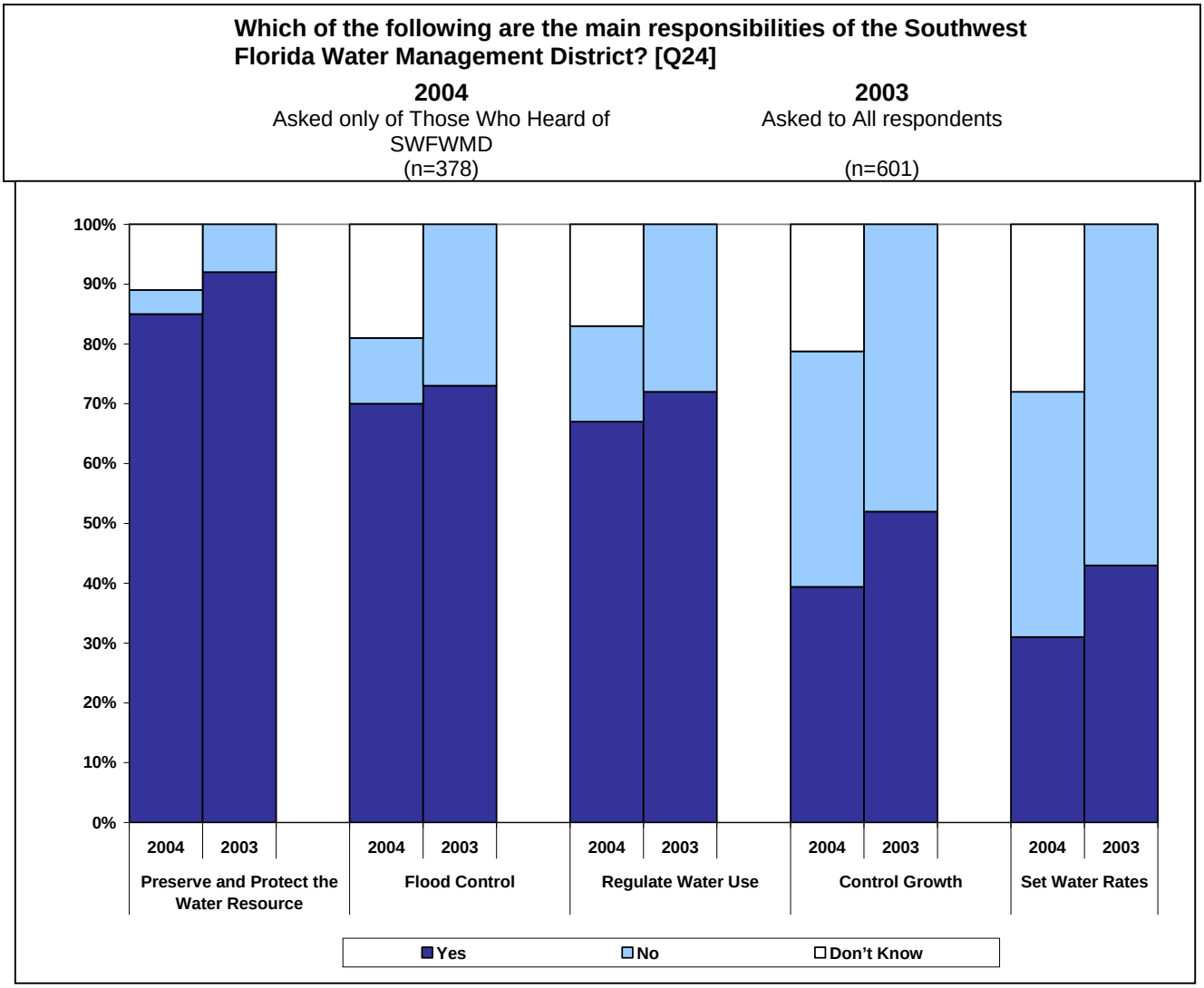
  - Men (60%) were only slightly less likely to know about SWFWMD than women (64%).

  - The northern area (67%) had the greatest knowledge about SWFWMD compared to the central (61%) and the southern (58%).

SWFWMD –Knowledge of Main Responsibilities

In 2004, 85 percent of the respondents who heard of the SWFWMD thought preservation and protection of the water resource were main responsibilities of the SWFWMD. About two-thirds cited flood control (70%) and regulation of water use as main responsibilities as well (see Figure 21). A majority of respondents did not view controlling growth (39%) and setting water rates (31%) as main responsibilities of SWFWMD. There was also a great deal of uncertainty about the SWFWMD's main responsibilities as evidenced by the relatively large number of respondents saying they "Didn't Know". In 2003, the question about main responsibilities was asked to all respondents rather than asked of those who stated they heard about the SWFWMD. Therefore, 2003 data are not directly comparable with 2004 results. However, the general pattern of findings was mirrored.

Figure 21. SWFWMD Performance



Characteristics Affecting the Identification of the Main Responsibilities of SWFWMD. It is important to determine if there are any patterns associated with knowledge about SWFWMD responsibilities. Responses were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed:

- Regulate Water Use — "Yes ". Home ownership was the only demographic characteristic for which percentage differences were notable. Regional differences were also limited.
    - Respondents who own their home (66%) identified this as a main SWFWMD responsibility compared to renters (79%)
    - No notable patterns were observed for the other demographic characteristics
    - Respondents in the southern area (62%) and northern area (64%) were less likely than those in the central area (76%) to identify water use regulation as a main responsibility.
- Control Growth — "Yes ".
  The control of growth is not a SWFWMD responsibility. The percentage of respondents who said it is a SWFWMD responsibility varied by a number of demographic characteristics as well as by region.
    - Full-time residents (41%) were more likely to identify controlling growth as a SWFWMD responsibility than part-time residents (29%.)
    - A higher percentage of renters (50%) than homeowners (39%) misidentified controlling of growth as a main responsibility.
    - A higher percentage of women (43%) than men (35%) said that control of growth is a responsibility.
    - Respondents in the northern area (43%) and central area (40%) were more likely than those in the southern area (34%) to incorrectly identify the control of growth as one of SWFWMD's main responsibilities.

- Preserve and Protect the Water Resource — "Yes ".
  No notable differences were observed related to type of residence, years of residence, home ownership, gender, education or age. Response rates across the three regions were similar.

  - Part-time residents (79%) were less likely to identify this responsibility than full-time residents (86%).

  - Responses were similar for the southern (88%) and central (87%) areas and slightly lower in the northern area (80%.) [

- Flood Control — "Yes ".
  Percentage differences were notable for two of the demographic characteristics. Response rates across the three regions were similar.

  - Part-time residents (61%) were less likely to identify this responsibility than full-time residents (71%)

  - A higher percentage of men (77%) than women (66%) said that flood control is a SWFWMD responsibility

  - Respondents in the southern area (68%) were slightly less likely than those in the central area (73%) and northern area (70%) to identify the flood control as one of SWFWMD's main responsibilities.

- Set Water Rates — "Yes ".
  Setting water rates is not a SWFWMD responsibility. The percentage of respondents who said it is a SWFWMD responsibility varied by a number of demographic characteristics as well as by region.

  - Residents in apartments or condominiums (44%) were more likely to say setting rates is a main SWFWMD responsibility than those in houses (30%.)

  - Renters (45%) were more likely to misidentify setting water rates as a SWFWMD responsibility than homeowners (30%.)

  - A higher percentage of respondents with a high school education (36%) said setting water rates is a main SWFWMD responsibility, compared to those with a college degree (29%) or graduate degree (22%.)

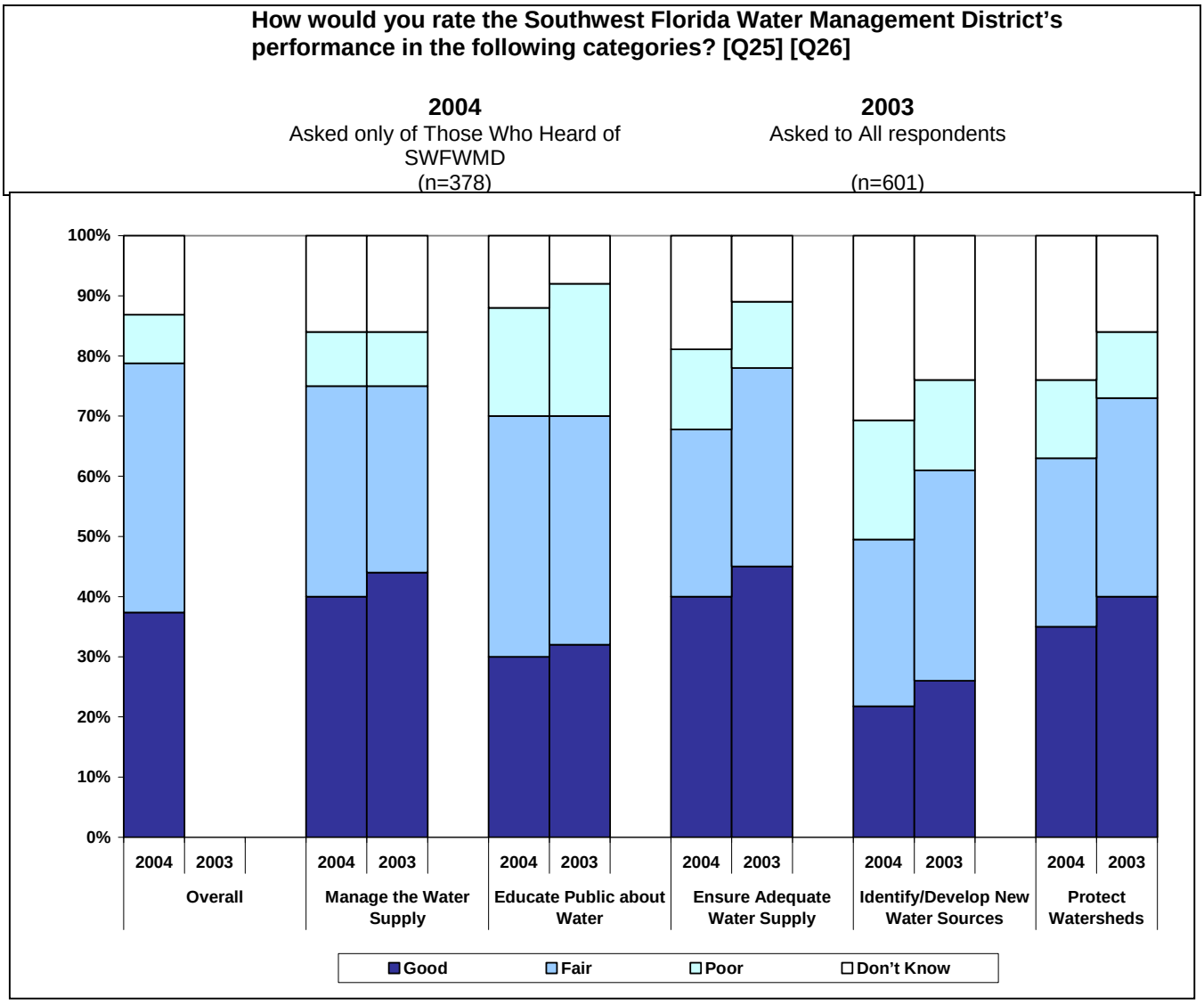
  - Younger respondents were more likely than older respondents to be incorrect about this responsibility. Respondents under age 45 (39%) misidentified setting water rates as a SWFWMD responsibility, compared to respondents over 45 or older (28%.)

- Respondents in the central area (40%) were more likely than those in the southern (26%) or northern area (26%) to incorrectly identify setting water rates as one of SWFWMD's main responsibilities.

SWFWMD Performance Ratings

In 2004, 78 percent of the 378 respondents who said they had heard of SWFWMD rated their overall performance as either "Good" or Fair". This question was not asked in 2003. In 2004, the 378 respondents who heard of SWFWMD were also asked to rate the its performance in five areas (see Figure 22). Managing the water supply (40%), ensuring an adequate water supply (36%), protecting the watersheds (35%), and educating the public about water resources (30%) were rated by around one-third of the respondents as "Good". Only 22 percent rated SWFWMD's performance in identifying and developing new water resources as "Good". There was also a large proportion (31%) that did not know how to rate this item. In 2003, the all respondents were asked to rate the five performance items rather than asked of those who stated they heard about the SWFWMD. Therefore, 2003 data are not directly comparable with 2004 results. However, the general pattern of findings was mirrored.

Figure 22. Performance of [SWFWMD]



Characteristics Affecting SWFWMD Performance Rating. It is important to determine if there are any patterns associated with how respondents rated SWFWMD's performance. Responses were examined within categories of various demographic characteristics to see if any patterns emerged. From these analyses, the following patterns were observed:

- Overall performance — "Good ".
  - No notable patterns were observed for any of the demographic characteristics
  - Response rates were similar across the three regions: southern area respondents (38%); central area (37%) and northern area (36%).

- Managing the Water Supply— "Good ".
  - No notable patterns were observed for any of the demographic characteristics
  - Response rates were similar for the three regions: southern area (43%), central area (43%) and northern area (33%).

- Educating the Public about Water Resources— "Good ".
  - Respondents who live in a house (29%) were less likely to rate this area of performance as "good" those in apartments or condominiums (39%.)
  - Older respondents rated this area of performance as "good" more often than younger respondents. Thirty-three percent of respondents 45 years and older rated this area as "good", compared to 20 percent of those younger than 45.
  - No notable patterns were observed for the other demographic characteristics
  - Respondents in the southern area (32%) and central area (32%) were more likely to say performance was "good" than those in the northern area (27%.)

- Ensuring an Adequate Water Supply— "Good ".
  - Homeowners (35%) were less likely to give a "good" rating than renters (45%)
  - Those who live in a house (34%) were less likely than respondents who live in apartments or condominiums (48%) to say performance in this area was "good."
  - Respondents in the southern area (41%) were more likely to give a "good" rating than those in the central (37%) and northern area (31%.)

- Identifying and Developing New Water Sources — "Good ".
  - There was a high percentage of respondents (30%) who said they "did not know" how to rate SWFWMD's ability to identify and develop new water sources.
  - Respondents who own their home (18%) were less likely than renters (50%)to rate this performance area as "good."
  - Fewer respondents who live in houses (18%) gave a "good" rating, compared to those living in apartments or condominiums (39%).
  - Rates were similar across the three regions: southern area (20%); central area (24%) and northern area (21%).

- Protecting the Watershed— "Good ".
  - There was a high percentage of respondents (24%) who said they "did not know how to rate SWFWMD's in terms of its ability to protect the watershed.
  - Men (41%) were more likely than women (32%) to rate SWFWMD as "Good" in protecting the watershed.
  - The southern area (48%) respondents rated performance protecting the watershed at higher rates than the central area (37%) or northern area (32%).