

Report to the Southwest Florida Water Management District

Water Knowledge and Attitudes of West Central Florida Residents

Submitted by the Survey Research Center at
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June 11, 2003

During February and March 2003, the Survey Research Center at the Bureau of Economic and Business Research conducted a survey of residents of western Florida to determine their knowledge of and attitudes about water management. The sample was divided into three strata: northern, southern, and Tampa Bay. The SRC completed 200 interviews in each of the three strata (as determined by GENESYS). The survey consisted of sixty-eight questions, and took an average of 14 minutes and 52 seconds to complete.

The sample for the survey was randomly generated by the GENESYS sample generation program. Based on the response rate for each of the strata, sample numbers were released to interviewers up to six times. Of the 3487 telephone numbers generated by GENESYS, 601 resulted in completed interviews. As is common with randomly generated telephone numbers, a large proportion (41%) of the same consisted of non-working numbers, disconnected numbers, businesses, and other dispositions in which respondents are never available.

DISPOSITION CODE	DESCRIPTION	RECORDS
1100	Complete	601
1200	Partial Complete	3
2110	Strong Refusal	398
2120	Soft Refusal	321
2210	Resp Never Available	
2221	Ans Machine, No Message	219
2222	Ans Machine, Message	16
2320	Phys/Mentally Unable	12
2330	Lang Unable-don't use for SP	9
2340	Misc Unable	13
3120	Busy	27
3130	No Answer	269
3150	Technical Phone Problems	12
4200	Fax/Data Line	236
4310	Non-working Number	96
4320	Disconnected Number	809
4410	Number Changed	42
4420	Cell Phone	3
4510	Business/Government/Other Org	290
4520	Institution	3
4530	Group Quarters	
4700	No Eligible Respondent	61
5100	Callback, Resp Not Selected	36
5200	Callback, Respondent Selected	11
TOTAL SAMPLE		3487

Sample Disposition Table

The overall cooperation rate for the survey was 45%, and was calculated by dividing the number of completes by the number of completes and refusals.

Cooperation Rate	0.45
Response Rate	0.32

Table of Cooperation and Response Rates

Cooperation rates for surveys in which respondents are contacted via randomly generated numbers and have not been previously contacted by mail tend to be lower than cooperation rates for other surveys. Even so, we found that respondents to this survey were less cooperative than we expected them to be. We suspect that the elevated refusal rate may be attributed to the subject of the survey. In the introduction, respondents were asked to participate in “a study to assess Floridians' knowledge of the Southwest Florida Water Management District.” We suspect that those respondents who were familiar with the Southwest Florida Water Management District were more likely to participate in the survey than those who had never heard of SWFWMD. Also, respondents tend to be more cooperative when they perceive that there are no right or wrong answers to a survey; respondents are more hesitant to participate when they know that their knowledge is being assessed.

The response rate of 32% was calculated using AAPOR's most conservative response rate approach. Recent research in telephone survey response rates has shown that the results of surveys with response rates between thirty and seventy percent do tend to accurately represent the population under study. Because we believe that respondents unfamiliar with SWFWMD refused to participate more than those who know of SWFWMD, we suspect that responses to this survey may overestimate the knowledge of the survey population.

Survey Demographics

The demographics of survey respondents are summarized below. Six percent of respondents were in the youngest age category, between 18 and 24. A third of respondents were between 25 and 44. Another third were between the ages of 45 and 64. Twenty-eight percent of respondents were over the age of 65. Of the respondents, the majority (56 percent) said they were married. Another 24 percent of respondents were single. Eight percent of the respondents were divorced. Nine percent were widowed. Family incomes were fairly evenly distributed over the range of possible answer choices. Fewer respondents belonged to the lower income levels than the higher ones. Of the respondents, almost half had a high school degree or GED. Another 35 percent had college degrees. Thirteen percent had graduate degrees. Only six percent had not completed high school. Of the respondents, the majority said that they were white (87 percent). Hispanics accounted for another five percent of the respondents. The remaining categories, African American and American Indian, were eight percent of the respondents combined. Respondents were almost evenly divided by sex. Just over half of the respondents were men (51 percent), while the remaining respondents were women (49 percent).

What is your age?

Response Categories	Number of Responses	Percent of Responses
Refused	5	.8
18-24	37	6.2
25-44	194	32.3
45-64	195	32.4
65 +	170	28.3
Total	601	100.0

What is your marital status?

Response Categories	Number of Responses	Percent of Responses
Refused	11	1.8
Don't know	1	.2
Married	338	56.2
Single	144	24.0
Separated	7	1.2
Divorced	48	8.0
Widowed	52	8.7
Total	601	100.0

Family's household income from all sources (in dollars)

Response Categories	Number of Responses	Percent of Responses
Refused	75	12.5
Don't know	12	2.0
<14,999	49	8.2
15,000-24,999	67	11.1
25,000-34,999	99	16.5
35,000-49,999	108	18.0
50,000-74,999	105	17.5
75,000+	86	14.3
Total	601	100.0

Highest level of school completed

Response Categories	Number of Responses	Percent of Responses
Refused	4	.7
Less than high school	36	6.0
High School/GED	271	45.1
College degree	213	35.4
Graduate degree	77	12.8
Total	601	100.0

Race

Response Categories	Number of Responses	Percent of Responses
Refused	13	2.2
Don't know	3	.5
White	521	86.7
African American	20	3.3
Hispanic	30	5.0
American Indian	3	.5
Other	11	1.8
Total	601	100.0

Sex

Response Categories	Number of Responses	Percent of Responses
Male	309	51.4
Female	292	48.6
Total	601	100.0

Survey Responses: Knowledge

The survey included a number of questions that assess respondents' knowledge of the Southwest Florida Water Management District, local water issues, and watersheds in general. The results of these questions indicate that survey respondents had moderate knowledge of watershed issues. A majority of respondents, 74 percent, had heard of the Southwest Florida Water Management District. Almost eighty percent of respondents were able to correctly identify a watershed as "an area where all water drains into a common water body." However, only about a quarter of respondents said that they live in a watershed and 29 percent said that they could name their watershed. Although just less than fifty percent believed that actions they take impact the watershed, over eighty percent of respondents believed that there is a long-term water supply problem in west central Florida.

Have you ever heard of the Southwest Florida Water Management District?

Response Categories	Number of Responses	Percent of Responses
Don't know	5	.8
Yes	443	73.7
No	153	25.5
Total	601	100.0

Do you live in a watershed?

Response Categories	Number of Responses	Percent of Responses
Yes	155	25.8
No	362	60.2
Don't know	80	13.3
Refused	4	0.7

Can you name your watershed?

Response Categories	Number of Responses	Percent of Responses
Yes	174	29
No	387	64.4
Don't know	39	6.5
Refused	1	0.2

Does action you take have an impact on your watershed?

Response Categories	Number of Responses	Percent of Responses
Yes	286	47.6
No	251	41.8
Don't know	61	10.1
Refused	3	0.5

Which of the following represents a watershed?

Definition Choices	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Offshore region of Gulf of Mexico	209	34.8	392	65.2
An area where all water drains into a common water body	473	78.7	128	21.3
A canal	336	55.9	265	44.1
Don't know	68	11.3	533	88.7
Refused	8	1.3	593	98.7

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

Response Categories	Number of Responses	Percent of Responses
Refused	2	.3
Don't Know	39	6.5
Yes	451	75.0
No	109	18.1
Total	601	100.0

Survey Responses: Agency Responsibilities and Performance

Survey respondents were asked to evaluate the responsibilities of various government agencies in watershed protection. The majority of respondents said that all five of the government agencies they were asked about provide watershed protection. The regional environmental or planning agency (79 percent) and the Florida Department of Environmental Protection (77 percent) were the two agencies that respondents most often perceived as responsible for watershed protection.

Survey respondents were also asked to evaluate the responsibilities and performance of the Southwest Florida Water Management District. Almost everyone, 92 percent, said that SWFWMD is responsible for preserving and protecting the water resource. A large majority also said that SWFWMD is responsible for flood control (74 percent) and regulating water use (72 percent). Fewer respondents said that SWFWMD is responsible for controlling growth (52 percent) and setting water rates (43 percent).

Finally, respondents were asked to rate the performance of the Southwest Florida Water Management District on five tasks, one a scale of good, fair, or poor. In general, a large proportion of respondents gave a neutral response or declined to answer. Respondents most frequently approved of SWFWMD's performance in ensuring an adequate water supply (45 percent said "good") and managing the water supply (44 percent said "good"). Respondents most often disapproved of SWFWMD's performance in educating the public about water resources (22 percent said "poor").

Which of the following agencies provide watershed protection?

Response Categories	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Local governments	411	68.4	190	31.6
Regional environmental or planning agency	472	78.5	129	21.5
Florida Department of Environmental Protection	465	77.4	136	22.6
Federal Environmental Protection Agency	438	72.9	163	27.1
Water management district	358	59.6	243	40.4
Don't know	30	5	571	95
Refused	1	0.2	600	99.8

What do you feel are the main responsibilities of the
Southwest Florida Water Management District?

Response Categories	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Regulate water use	434	72.2	167	27.8
Control growth	313	52.1	288	47.9
Preserve and protect the water resource	554	92.2	47	7.8
Flood control	442	73.5	159	26.5
Set water rates	260	43.3	341	56.7
Don't know	24	4	577	96
Refused	3	0.5	598	99.5

How would you rate the Southwest Florida Water Management District's performance?

Managing the water supply

Response Categories	Number of Responses	Percent of Responses
Refused	5	0.8
Don't Know	93	15.5
Good	266	44.3
Fair	186	30.9
Poor	51	8.5
Total	601	100

Educating the public about water resources

Response Categories	Number of Responses	Percent of Responses
Refused	2	0.3
Don't Know	47	7.8
Good	193	32.1
Fair	229	38.1
Poor	130	21.6
Total	601	100

Ensuring an adequate water supply

Response Categories	Number of Responses	Percent of Responses
Refused	3	0.5
Don't Know	61	10.1
Good	273	45.4
Fair	198	32.9
Poor	66	11
Total	601	100

Identifying and developing new water sources

Response Categories	Number of Responses	Percent of Responses
Refused	6	1
Don't Know	137	22.8
Good	157	26.1
Fair	211	35.1
Poor	90	15
Total	601	100

Protecting the watersheds

Response Categories	Number of Responses	Percent of Responses
Refused	6	1
Don't Know	92	15.3
Good	239	39.8
Fair	197	32.8
Poor	67	11.1
Total	601	100

Survey Responses: Awareness and Attitudes

Survey respondents indicated that they are very concerned about threats to watersheds and strongly support protecting them. Over 98 percent of respondents said that water conservation was important to them. Of these, 85 percent said that water conservation was very important. Similarly, 90 percent of respondents said that preserving watersheds for the future was important to them. The majority of respondents, 76 percent, said that watersheds were very important for water quality. Less than 60 percent said that watersheds were very important for property values (58 percent) and visual aesthetics (55 percent). Half of the survey respondents said that watersheds are very important for recreational opportunities.

Respondents also demonstrated awareness of actions that can impact watersheds. Over 80 percent of respondents said that storm water runoff, fertilizers and pesticides, and litter impact watersheds. Another 71 percent said vehicle washing impacts watersheds. Less than 60 percent said that lawn and plant clippings impact watersheds. Still, 70 percent said that population growth and healthy watersheds can coexist.

How important is water conservation to you?

Response Categories	Number of Responses	Percent of Responses
Refused	1	.2
Don't know	1	.2
Very important	508	84.5
Important	84	14.0
Not important	7	1.2
Total	601	100.0

How important is it to you to preserve watersheds for the future?

Response Categories	Number of Responses	Percent of Responses
Refused	1	.2
Don't know	8	1.3
Very important	561	93.3
Important	28	4.7
Not important	3	.5
Total	601	100.0

Watersheds can provide natural beauty to view, affect property values, afford recreational opportunities, affect water quality and impact flooding. Please rank the following in terms of their importance:

Visual aesthetics

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Don't know	12	2
Very Important	328	54.6
Somewhat Important	222	36.9
Not Important	38	6.3
Total	601	100

Property values

Response Categories	Number of Responses	Percent of Responses
Refused	2	0.3
Don't know	12	2
Very Important	349	58.1
Somewhat Important	198	32.9
Not Important	40	6.7
Total	601	100

Recreation opportunities

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Don't know	12	2
Very Important	299	49.8
Somewhat Important	230	38.3
Not Important	59	9.8
Total	601	100

Water quality

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Don't know	23	3.8
Very Important	458	76.2
Somewhat Important	95	15.8
Not Important	24	4
Total	601	100

Please tell me which of the following can impact your watershed:

Response Categories	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Stormwater runoff	516	85.9	85	14.1
Fertilizers and pesticides	521	86.7	80	13.3
Litter	490	81.5	111	18.5
Vehicle washing	426	70.9	175	29.1
Lawn/plant clippings	329	54.7	272	45.3
Don't know	30	5	571	95
Refused	9	1.5	592	98.5

Continued population growth and healthy watersheds can coexist--

Response Categories	Frequency	Percent
Refused	3	.5
Don't know	22	3.7
Strongly Agree	147	24.5
Agree	274	45.6
Disagree	103	17.1
Strongly Disagree	52	8.7
Total	601	100.0

Survey Responses: Awareness and Activism

Respondents were asked to indicate their support for legislation to protect water resources, report on measures they had taken to conserve water, and evaluate issues that would compel them to save water. Support was high, greater than 70 percent, for each of the four measures to protect watersheds. Growth management was most popular, with 84

percent of respondents in favor. Responses were more mixed when respondents were asked how much they would be willing to pay each year to protect watersheds. While 24 percent were unwilling to pay any more, 69 percent were willing to pay some amount.

In general, respondents reported that they had taken many of the steps to conserve water named in the survey. Most respondents, 94 percent, said that they repair water leaks promptly. A large majority of respondents also said that they has followed lawn water restrictions (91 percent), limited water use while shaving and showering (87 percent), and combined loads of clothing and dishes (87 percent). Over 70 percent of respondents had also landscaped with drought-tolerant plants and used low flow toilets and showerheads. Flow restrictors on faucets were the least popular measure; only 57 percent of respondents had tried this.

Finally, respondents were asked what would motivate them to save water. Of the seven items suggested, all were considered to be motivators to save water by over 75 percent of the respondents. A declared water shortage and fear of running out of water were considered to be most motivating. Free household conservation kits were considered to be least motivating.

Would you support further watershed protection through:

Response Categories	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Land purchases	470	78.2	131	21.8
Regulation/mitigation	446	74.2	155	25.8
Growth management	502	83.5	99	16.5
Zoning Restrictions	471	78.4	130	21.6
Don't know	33	5.5	568	94.5
Refused	11	1.8	590	98.2

How much would you be willing to pay additionally each year to protect watersheds?

Response Categories	Frequency	Percent
Refused	8	1.3
Don't know	35	5.8
Up to \$10	140	23.3
\$10 to \$25	132	22.0
\$25 to \$100	141	23.5
Not willing to pay more	145	24.1
Total	601	100.0

Please tell me if you have taken any of the following steps to conserve water:

Response Categories	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Follow lawn watering restrictions	548	91.2	53	8.8
Landscape with drought-tolerant plants	435	72.4	166	27.6
Have low flow toilets	442	73.5	159	26.5
Have low flow showerheads	446	74.2	155	25.8
Use flow restrictors on faucets	343	57.1	258	42.9
Repair water leaks promptly	563	93.7	38	6.3
Limit water use while shaving, showering, etc.	523	87	78	13
Combine loads of clothes or dishes when washing	523	87	78	13
Don't know	3	0.5	598	99.5
Refused	0	0	601	100

Which of the following would encourage you to save more water?

Response Categories	Number of "Yes" Responses	Percent of "Yes" Responses	Number of "No" Responses	Percent of "No" Responses
Fear of running out of water	520	86.5	81	13.5
Materials on how to save water	481	80	120	20
Free household conservation kits	453	75.4	148	24.6
Rebates for water saving appliances	487	81	114	19
A declared water shortage	521	86.7	80	13.3
Penalties for excessive water use	498	82.9	103	17.1
Cost of water	484	80.5	117	19.5
Don't know	1	0.2	600	99.8
Refused	4	0.7	597	99.3

Survey Responses: Media Use

Respondents were asked how often they used various forms of media to get information about current events, water, and water conservation. The responses showed that, in general, respondents used newspapers and print media, television, and cable television to get information. They tended to use the radio, Internet, friends and family, and brochures less often for information. These results held over all three forms of information, although respondents tended to use the Internet more for current events than for information about water and water resources.

How often do you use the following sources to receive information about current events?

Newspapers or print media

Response Categories	Number of Responses	Percent of Responses
Don't know	1	0.2
Often	428	71.2
Sometimes	85	14.1
Seldom	60	10
Never	27	4.5
Total	601	100

Internet

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Often	155	25.8
Sometimes	126	21
Seldom	109	18.1
Never	210	34.9
Total	601	100

Radio

Response Categories	Number of Responses	Percent of Responses
Don't know	1	0.2
Often	189	31.4
Sometimes	155	25.8
Seldom	139	23.1
Never	117	19.5
Total	601	100

Television

Response Categories	Number of Responses	Percent of Responses
Often	386	64.2
Sometimes	133	22.1
Seldom	57	9.5
Never	25	4.2
Total	601	100

Cable Television

Response Categories	Number of Responses	Percent of Responses
Refused	3	0.5
Often	317	52.7
Sometimes	102	17
Seldom	67	11.1
Never	112	18.6
Total	601	100

Brochures or pamphlets

Response Categories	Number of Responses	Percent of Responses
Don't know	4	0.7
Often	57	9.5
Sometimes	134	22.3
Seldom	218	36.3
Never	188	31.3
Total	601	100

Friends or family

Response Categories	Number of Responses	Percent of Responses
Don't know	2	0.3
Often	115	19.1
Sometimes	179	29.8
Seldom	164	27.3
Never	141	23.5
Total	601	100

Any other source where you get information about current events?

Response Categories	Number of Responses	Percent of Responses
Don't know	1	0.2
Yes	105	17.5
No	495	82.4
Total	601	100

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

Newspapers/print media

Response Categories	Number of Responses	Percent of Responses
Don't know	1	0.2
Often	239	39.8
Sometimes	185	30.8
Seldom	114	19
Never	62	10.3
Total	601	100

Internet

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Often	42	7
Sometimes	92	15.3
Seldom	151	25.1
Never	315	52.4
Total	601	100

Radio

Response Categories	Number of Responses	Percent of Responses
Often	78	13
Sometimes	146	24.3
Seldom	174	29
Never	203	33.8
Total	601	100

Television

Response Categories	Number of Responses	Percent of Responses
Often	238	39.6
Sometimes	186	30.9
Seldom	121	20.1
Never	56	9.3
Total	601	100

Cable Television

Response Categories	Number of Responses	Percent of Responses
Refused	2	0.3
Don't know	3	0.5
Often	192	31.9
Sometimes	141	23.5
Seldom	109	18.1
Never	154	25.6
Total	601	100

Brochures/pamphlets

Response Categories	Number of Responses	Percent of Responses
Often	44	7.3
Sometimes	128	21.3
Seldom	205	34.1
Never	224	37.3
Total	601	100

Friends/family

Response Categories	Number of Responses	Percent of Responses
Don't know	1	0.2
Often	76	12.6
Sometimes	151	25.1
Seldom	159	26.5
Never	214	35.6
Total	601	100

Any other source where you get information about water?

Response Categories	Number of Responses	Percent of Responses
Don't know	2	0.3
Yes	95	15.8
No	504	83.9
Total	601	100

How often do you seek water conservation information from the following sources?

Newspapers/print media

Response Categories	Number of Responses	Percent of Responses
Refused	3	0.5
Don't know	4	0.7
Often	192	31.9
Sometimes	173	28.8
Seldom	119	19.8
Never	110	18.3
Total	601	100

Internet

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Don't know	4	0.7
Often	48	8
Sometimes	93	15.5
Seldom	116	19.3
Never	339	56.4
Total	601	100

Radio

Response Categories	Number of Responses	Percent of Responses
Refused	2	0.3
Don't know	1	0.2
Often	57	9.5
Sometimes	142	23.6
Seldom	140	23.3
Never	259	43.1
Total	601	100

Television

Response Categories	Number of Responses	Percent of Responses
Refused	2	0.3
Don't know	2	0.3
Often	177	29.5
Sometimes	188	31.3
Seldom	107	17.8
Never	125	20.8
Total	601	100

Cable Television

Response Categories	Number of Responses	Percent of Responses
Refused	4	0.7
Don't know	1	0.2
Often	151	25.1
Sometimes	137	22.8
Seldom	95	15.8
Never	213	35.4
Total	601	100

Brochures/pamphlets

Response Categories	Number of Responses	Percent of Responses
Refused	2	0.3
Don't know	1	0.2
Often	39	6.5
Sometimes	145	24.1
Seldom	164	27.3
Never	250	41.6
Total	601	100

Friends/family

Response Categories	Number of Responses	Percent of Responses
Refused	3	0.5
Don't know	1	0.2
Often	59	9.8
Sometimes	133	22.1
Seldom	150	25
Never	255	42.4
Total	601	100

Any other source where you get information about water conservation?

Response Categories	Number of Responses	Percent of Responses
Refused	1	0.2
Don't know	1	0.2
Yes	69	11.5
No	530	88.2
Total	601	100

