

2022 Northern Issues Survey Report



This report represents data collected
November 4 – 23, 2022

Submitted by

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Executive Summary

Background & Goals

The Southwest Florida Water Management District (District) reached out to The Taproot Agency to conduct a panel survey of residents in three Florida counties focused on information related to local springs. The District has found that they have been competing in the media with scientists and activists who disagree with the District's analysis about water issues, which has led to a perceived increase in misconceptions in the region. The District wanted to see if the misconceptions are widespread throughout the residents in these counties or not.

Through a full messaging strategy, the District provides resources discussing various topics related to springs health and role as a vital resource to the state's ecology, economy and quality of life. The Springs Coast region includes Citrus and Hernando counties, as well as portions of Marion and Pasco counties, thus having a better understanding of what residents in those counties know about their springs and the health of these critical water resources was important for future educational messaging and campaigns.

Methods of Data Collection and Analysis

The Taproot Agency deployed a panel survey to gather needed responses from Citrus, Hernando and Marion counties. The survey was active November 4 – 23, 2022, and gathered 1,235 responses. Respondents were only excluded if they selected "Other" as their county of residence to ensure we were only capturing responses in the desired geographic region. In this report, data from the 2019 My Home, My Springs report is provided as a point of comparison for questions that supply trending data from surveys completed in previous years.

The survey sample resulted in a theoretical margin of error of approximately +/-3% at the 95% confidence level. Below is the margin of error for each county at the 95% confidence level:

- Marion – 4%
- Hernando – 5%
- Citrus – 5%

Survey Sample Description

Survey respondents represented the following:

- Balance between three targeted counties, Marion (41%), Hernando (30%) and Citrus (24%)
- Balance across age ranges: 25 – 45 (36%), 46 – 65 (31%) and Over 65 (26%)
- 88% of respondents are full-time residents in their respective Florida county

Survey Insights

General:

- 73% of respondents indicated visiting local springs in the last 5 years, with Rainbow and Silver Springs being the most common destination.
- Similar to recent surveys specifically related to the Weeki Wachee and the Chassahowitzka Rivers, respondents in this survey got their information regarding local springs from (top three):
 - Friends/family/word of mouth (40%)

- Social media (33%)
- Internet search engines (22%)
- Most respondents rated the health of local springs as either excellent (24%) or good (43%). This result is similar to responses seen in a 2019 public perception survey also conducted by the District.
 - Later in the survey respondents were asked how much they agreed that the health of local springs is important to them. 49% strongly agreed with that statement and 31% agreed.
- Exactly half (50%) of respondents indicated having heard of the District prior to this survey.
- When asked about the credibility of other organizations or government entities, the following were the top two “very credible” groups:
 - U.S. Fish and Wildlife Service (50%)
 - Florida Fish and Wildlife Conservation Commission (49%)
 - Note: the District was 31% somewhat credible and 28% very credible

Springs information:

- When asked to write in known concerns facing local springs, the top two responses were pollution (16%) and the number of people visiting (15%). 45% of respondents indicated not knowing of any current challenges.
- When provided a list to select from following the open-ended question regarding known challenges the top three choices related to either the number of people recreating on the river or water being removed for various uses.
 - Too many people recreating on the river at one time (34%)
 - Too much water being pumped out of the springs for development due to population growth (30%)
 - Too much water being taken from the springs by bottled water companies (29%)
- When asked how much they agree with the following statement, “The SWFWMD scientists have the expertise to maintain the springs in our area,” 70% were either neutral or in agreement (strongly agree & agree) with that statement. This was only asked of respondents who answered they had heard of the District in a previous question.
- 65% of respondents agree (25% strongly agree; 40% agree) that “some recreational activities done at springs and rivers may negatively impact the springs and rivers.”
- Most respondents agree (30% strongly agree; 41% agree) that “each spring system is unique, and the challenges are different.”
- The top two factors identified that affect the health of local springs “a great deal” were:
 - Growth and development (37%)
 - Over fertilization (30%)
- Those who indicated knowing about the District prior to this survey were asked to rate the District’s performance in three areas.
 - Protecting springs in your area
 - 21% excellent; **40% good**
 - Educating people about what they can do to help protect the springs
 - 18% excellent; **33% good**
 - Ensuring that not too much water is drawn out of the ground for various uses
 - 14% excellent; 25% good; **36% ok**

Demographics

In which county do you live?

	2022
Citrus	24%
Hernando	30%
Marion	41%
Other*	5%

*Respondents terminated from survey.

Which category best fits your age?

	2022
Under 25	7%
25 – 45	36%
46 – 65	31%
Over 65	26%
Prefer not to answer	1%

Note: In the 2019 survey, the age range selections were different.

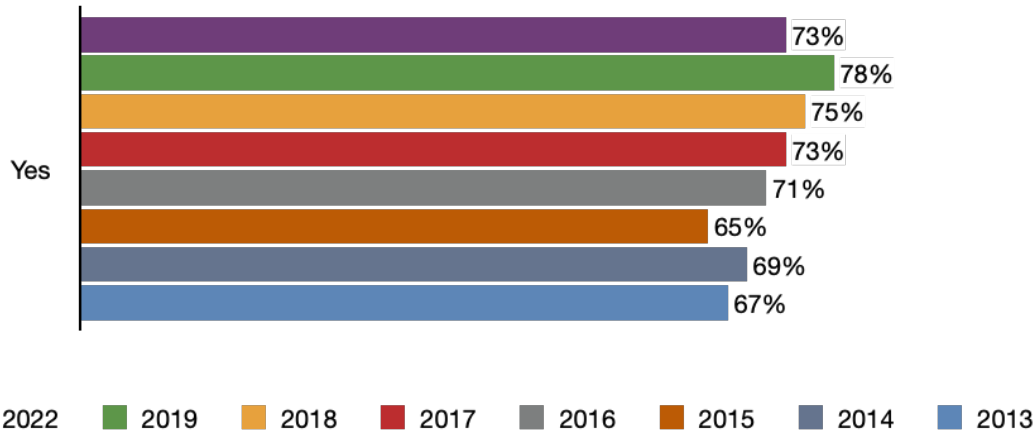
- Under 35 – 36%
- 35 to 64 – 52%
- 65 or older – 11%
- Prefer not answer – 1%

Do you live full-time or part-time in Florida?

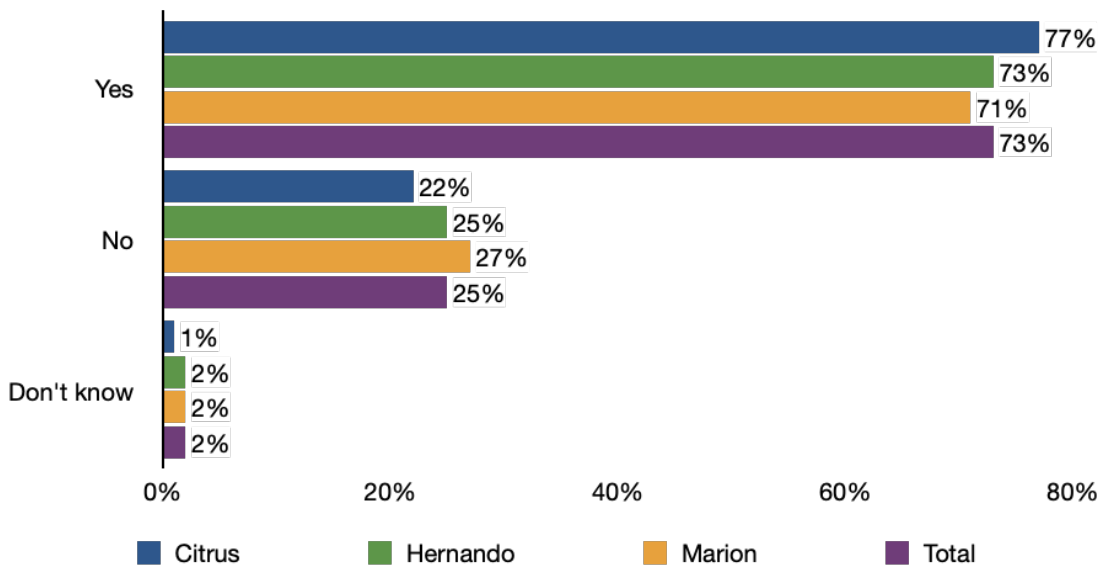
	2019	2022
Full-time	83%	88%
Part-time	13%	7%
Prefer not to answer	4%	5%

Springs Awareness

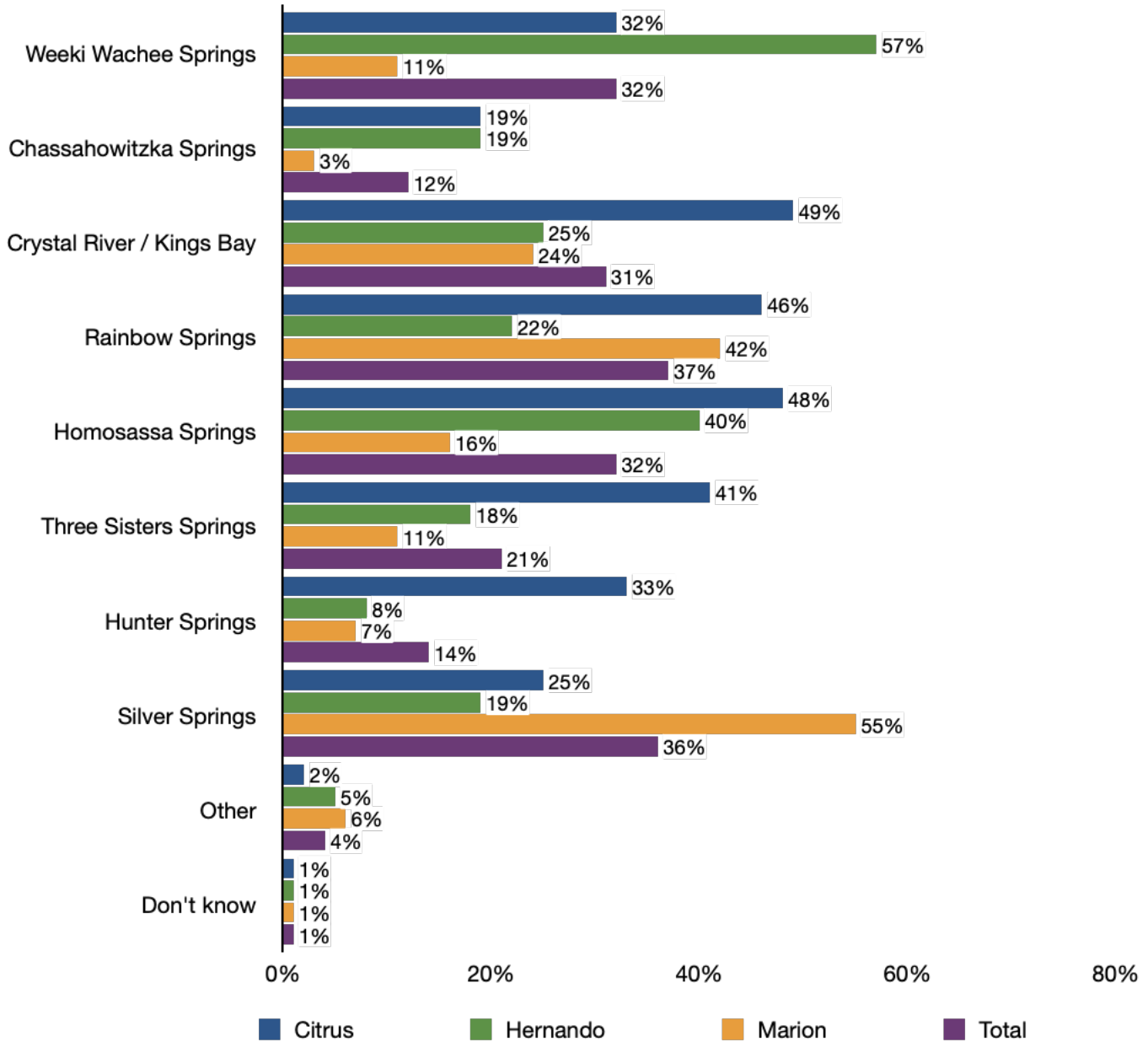
Have you visited any springs in your area in the last 5 years?



2022 Responses by County



Below is a list of springs in your area. Select all springs you visited in the past five years.



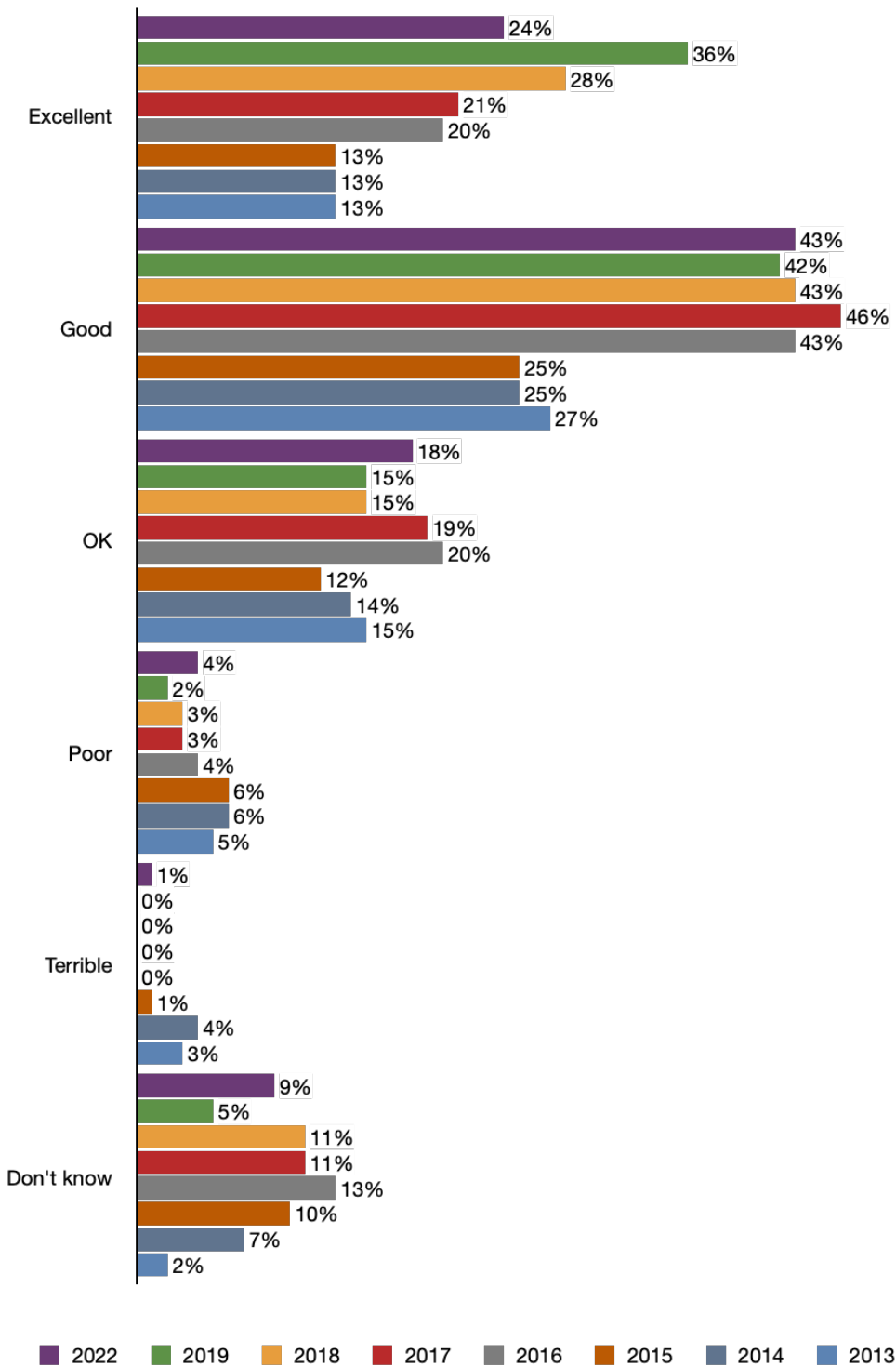
*Only respondents who indicated “Yes” they had visited a local spring in the last 5 years answered this question.

*Other written responses (recorded as entered by respondents, separated by semicolons, responses in **bold** were recorded multiple times): **Alexander Springs**; **Big Blue Springs**; fanning springs, ponce de Leon springs; **Bluebird Springs**; Eagles Nest; **Ginnie**; Hart Springs; **Jenni springs**; **Juniper Springs**; Silver Glen Springs; Manatee Springs; Otter Springs; Spring Hill; Springs on my property; St. Augustine; Wekiva.

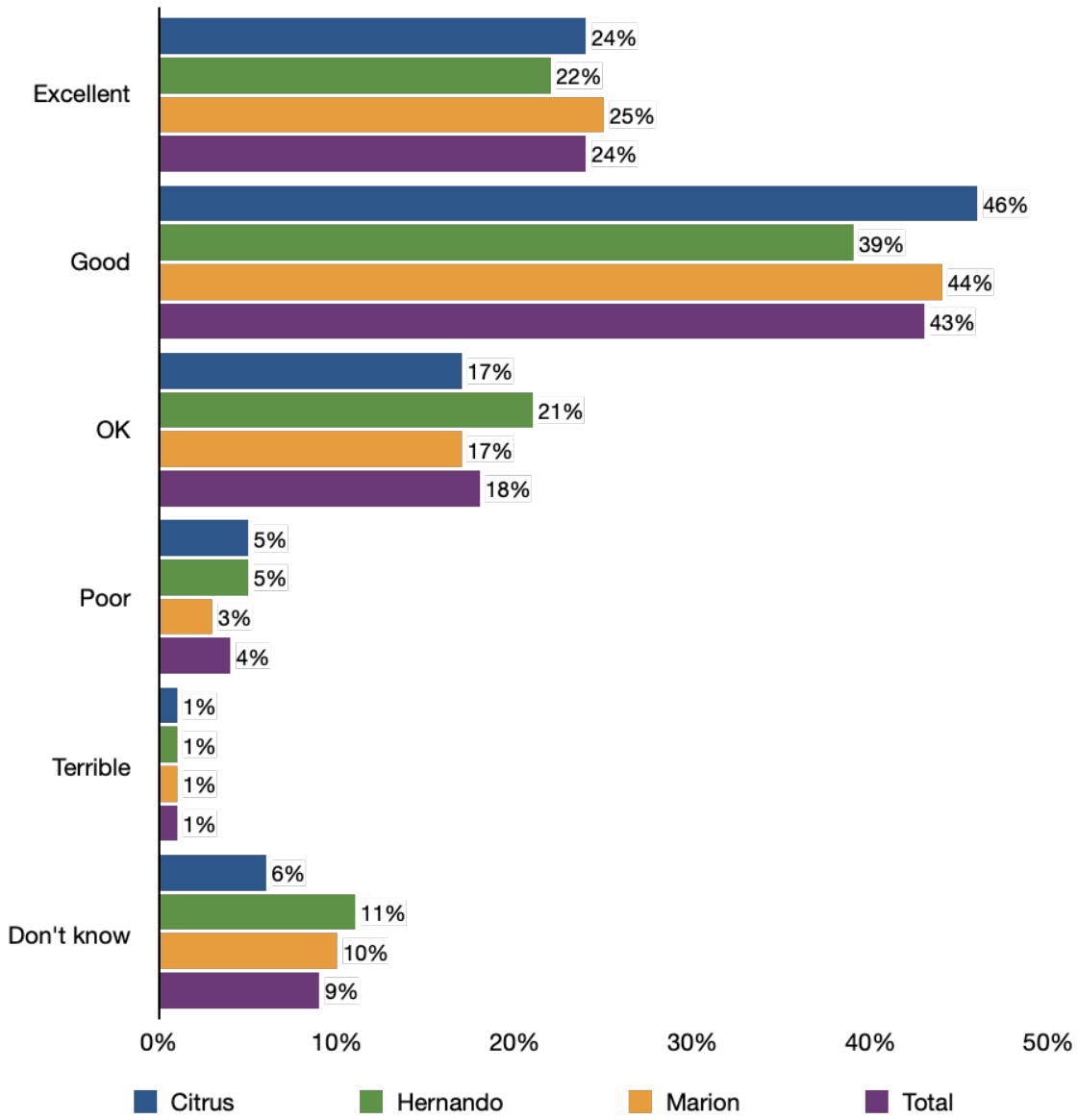
For comparison, the table below provides responses from the 2019 survey as well as 2022.

	2019	2022
Weeki Wachee Springs	12%	32%
Chassahowitzka Springs	8%	12%
Crystal River/Kings Bay	10%	31%
Rainbow Springs	13%	37%
Homosassa Springs	8%	32%
Three Sisters Springs	9%	21%
Hunter Springs	9%	14%
Silver Springs	9%	36%
Other. Please specify.	0%	4%
Don't specifically remember / Don't know	1%	1%

How would you rate the health of the springs in your area – would you say they are:



2022 Responses by County



Known Challenges with Springs

Based on what you know or might have heard, please list up to three things you know or may have heard are wrong with the springs.

2022 Only	
I haven't heard anything is wrong with the springs	45%
Pollution	16%
People (number, activities, etc.)	15%
Algae/bacteria	9%
Wildlife (manatees, alligators, fish, etc.)	7%
Clarity/color of the water	6%
Water level	6%
Facilities/management at springs (including funding)	5%
Trash	5%
Vegetation	5%
Bottled water	3%
Chemicals/fertilizer	3%
Climate/environmental (general)	3%
Vessels (motorboats, kayaks, canoes, etc.)	3%
Erosion	2%
Flow	2%
Water temperature (mostly cold)	2%
Other	2%
Accidents	1%
Clean up (general)	1%
Development in area	1%
Food source for wildlife	1%
Runoff	1%
Safety	1%
Septic	1%

Note: In the 2019 survey, the following responses/themes were recorded in this open-ended question:

- Algae/algal blooms
- Bacteria
- Dirty water/poor water quality/clarity/availability
- Contaminants/chemicals
- Pollution
- Fertilizer/fertilizer runoff
- Overcrowding
- Invasive vegetation
- Litter/trash
- Septic runoff

**Based on what you know or have heard, what challenges do local springs face?
Select all that apply.**

2022 Only	
Too many people recreating on the river at one time	34%
Too much water being pumped out of the springs for development due to population growth	30%
Too much water being taken from the springs by bottled water companies	29%
Impaired water quality	27%
No challenges at the moment	25%
Murky water	24%
Not enough rainfall to replenish the springs	22%
Minimum flow requirements set by government don't protect springs	15%
Other*	4%

*Other written responses (recorded as entered by respondents, separated by semicolons): wildlife needs care; Trash left; Too short hours; Too much development on shores around springs; Too many motorized vessels on weeki wachee river; Too many motorised boats and jet slis; To many rentals of kayaks boats for profit; Shore erosion, manatee danger, wildlife habitat needs protecting; Rodman Reservoir; Reduced wildlife; Pollution boats n trash; pollution; People/development; People need to take their trash with them; Other needs for water. The springs are fed from Georgia Alabama; Nitrates from fertilizer; Nitrates from fertilizer; Motor boats; Invasive plants; debris in the river traveling to the Springs; Boats; A little of all the above.

Note: This question was not included in previous surveys.

Where do you get information about springs? Please select all that apply.

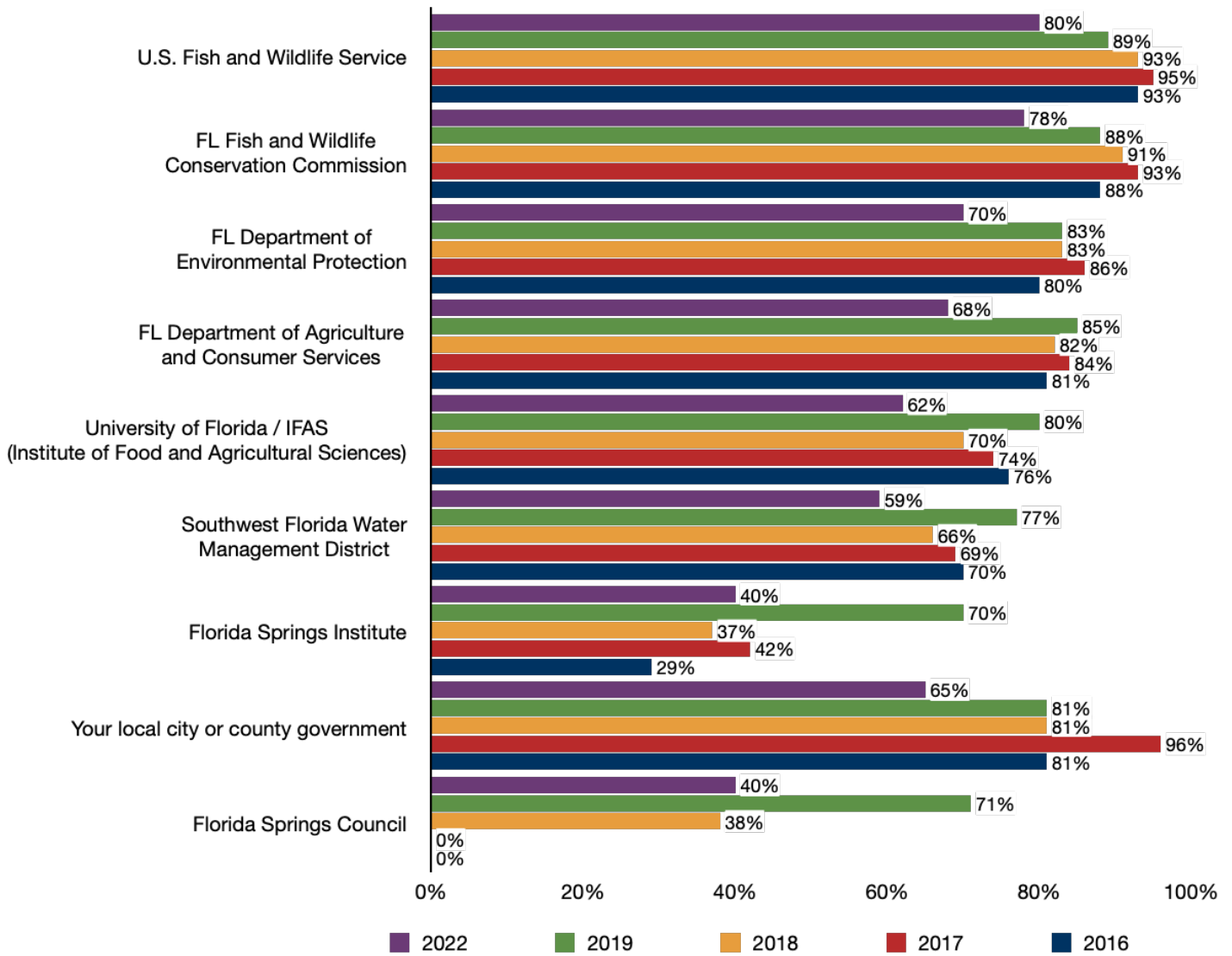
All Counties	
Friends/Family/Word of mouth	40%
Social media (Facebook, Twitter, Instagram, YouTube, etc.)	33%
Other websites, blogs, etc.	26%
Internet search engines (Google, Bing, etc.)	22%
City/County/State government websites	20%
Neighborhood newsletters/blogs/forums	18%
Television	18%
Newspaper print	14%
Newspaper online	14%
Water Management District website at WaterMatters.org	14%
Advocacy or community groups	13%
I don't get information about springs	12%
Community event	10%
Radio	7%
Kayak shop	4%
Don't know	4%

Note: This question was not included in previous surveys.

Below is a list of groups you may have heard of. Please tell us if you believe they are Very Credible, Somewhat Credible, or Not at all Credible. If you have never heard of them, let us know that too.

2022 Only	Very Credible	Somewhat Credible	Not at all credible	Don't know	Haven't heard of them
U.S. Fish and Wildlife Service	50%	30%	4%	12%	5%
Florida Fish and Wildlife Conservation Commission	49%	29%	4%	12%	6%
Florida Department of Environmental Protection	36%	34%	6%	16%	8%
Florida Department of Agriculture and Consumer Services	35%	33%	5%	18%	10%
University of Florida/IFAS (Institute of Food and Agricultural Sciences)	34%	28%	3%	19%	16%
Southwest Florida Water Management District	28%	31%	7%	15%	19%
Rainbow River Conservation	23%	24%	3%	21%	28%
Florida Springs Institute	21%	19%	3%	23%	35%
Your local city or county government	20%	45%	15%	17%	4%
Save Crystal River	19%	21%	4%	22%	34%
Withlacoochee Aquatic Restoration (WAR)	18%	21%	4%	22%	35%
Homosassa River Alliance	18%	22%	3%	23%	34%
Florida Springs Council	17%	23%	3%	23%	33%
Weeki Wachee River Happenings Facebook group	13%	20%	7%	22%	37%

Very Credible & Somewhat Credible Combined

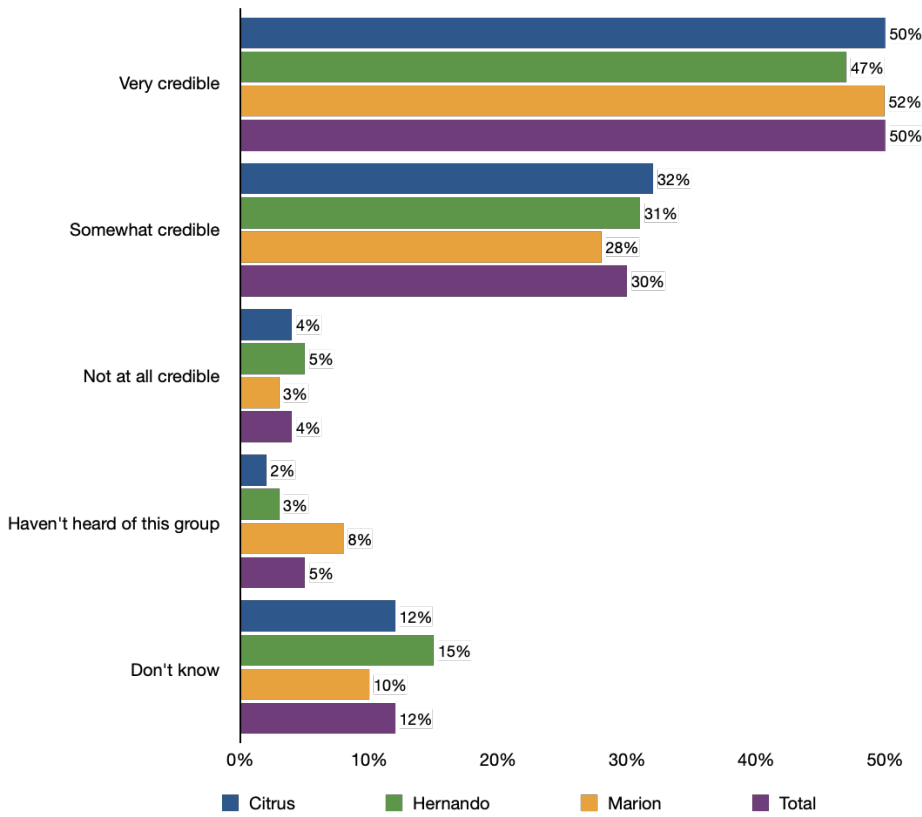


Note: In the 2019 survey, the following groups were included that were not repeated in the 2022 survey:

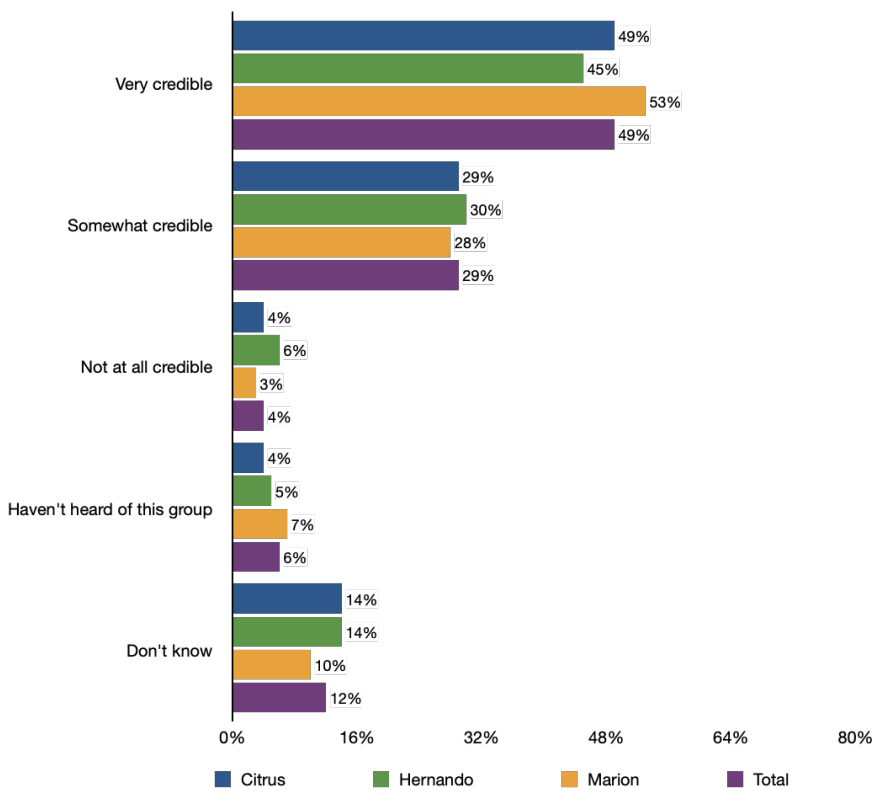
- “Save the Manatee” Organization
- US Environmental Protection Agency
- The Sierra Club
- Florida Citizens for Cleaner Springs

What follows are 2022 responses by county for each group.

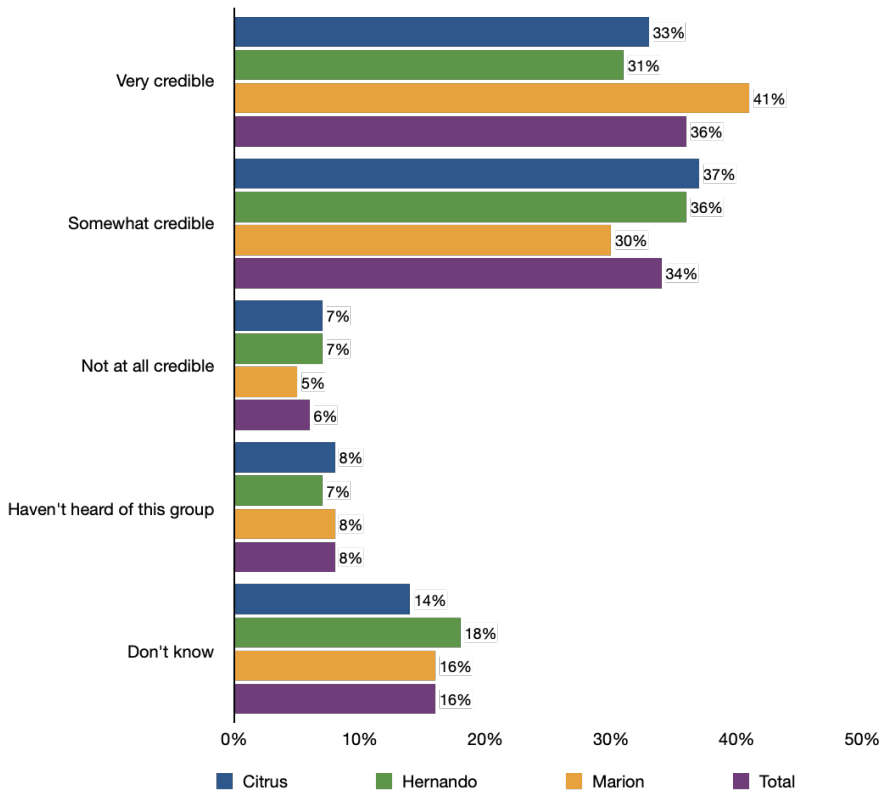
U.S. Fish and Wildlife Service



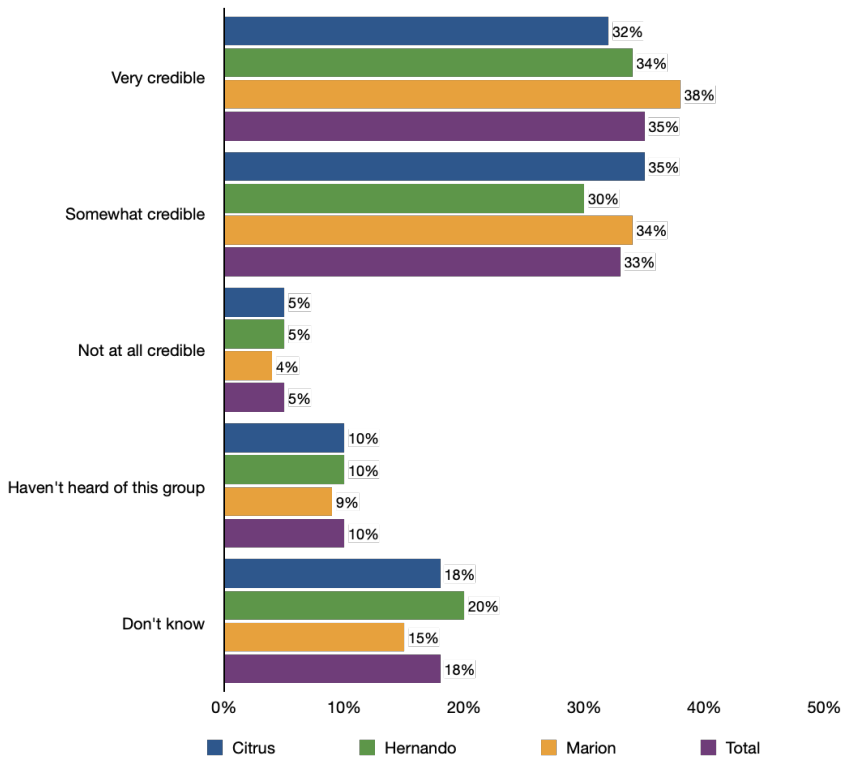
Florida Fish and Wildlife Conservation Commission



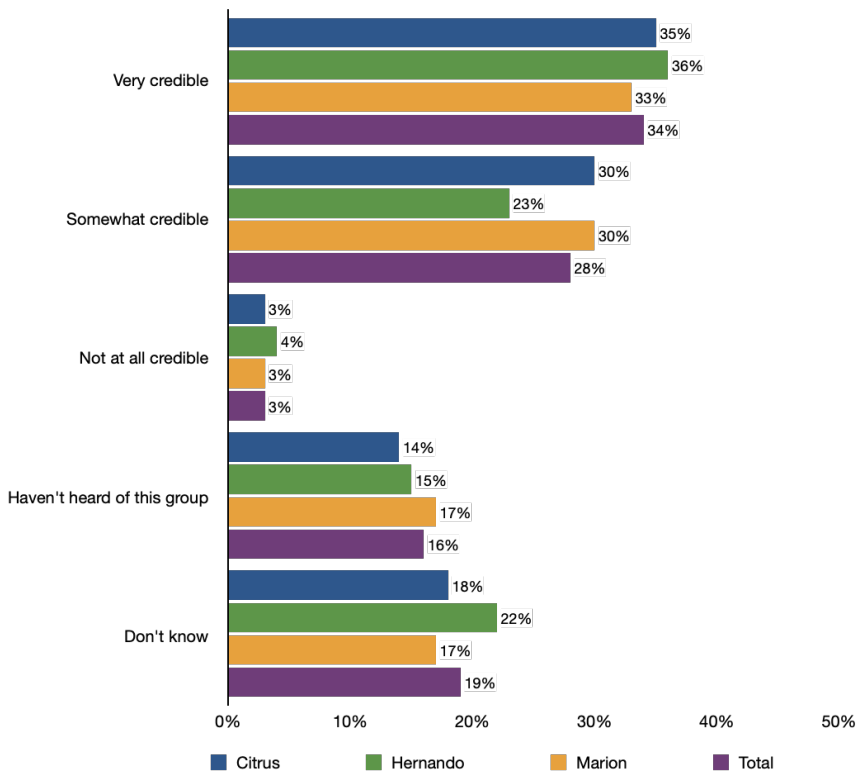
Florida Department of Environmental Protection



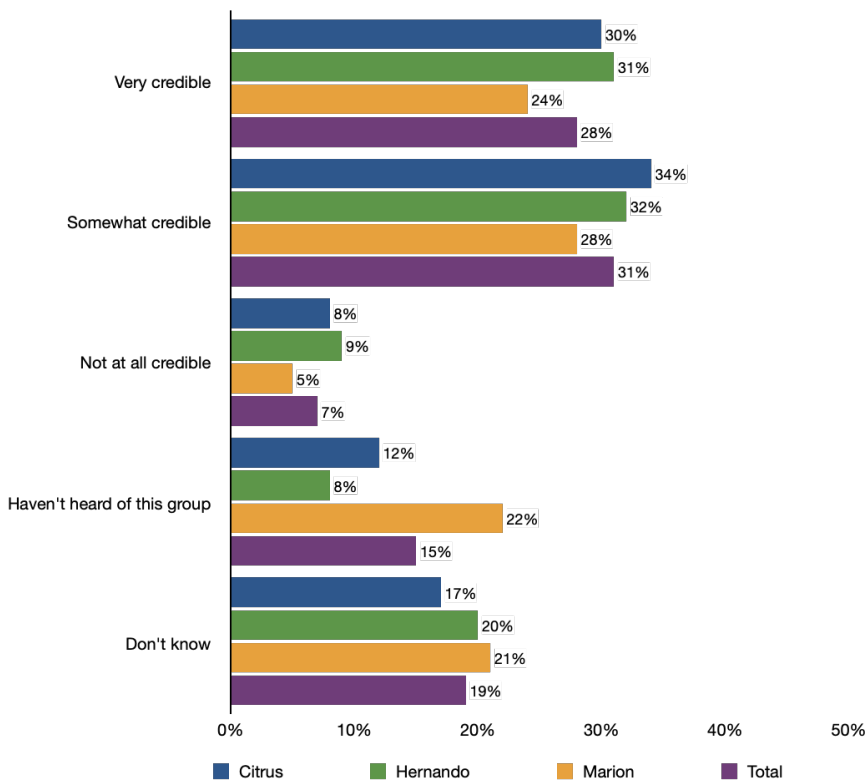
Florida Department of Agriculture and Consumer Services



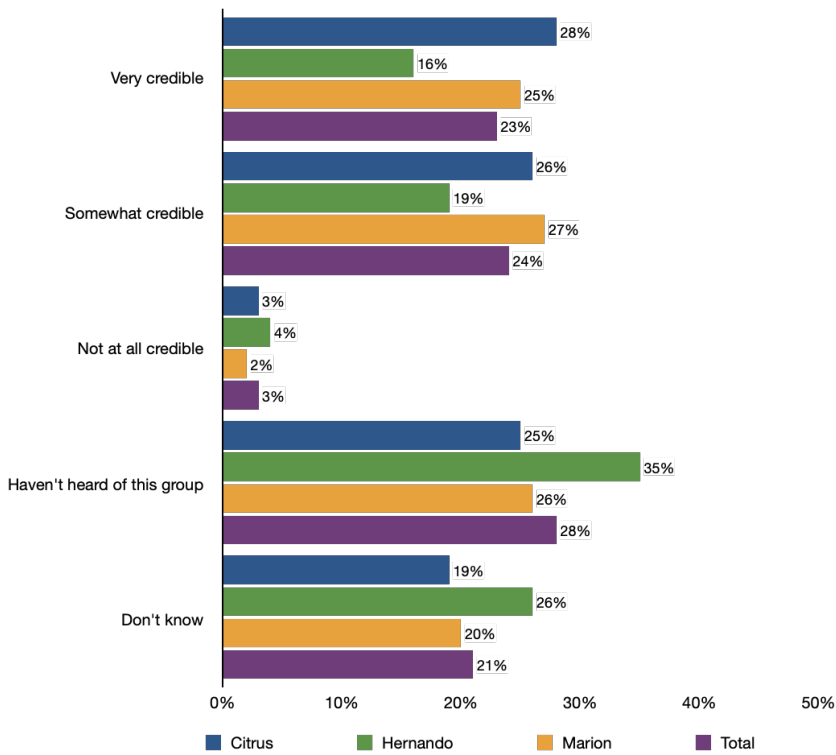
University of Florida / IFAS (Institute of Food and Agricultural Sciences)



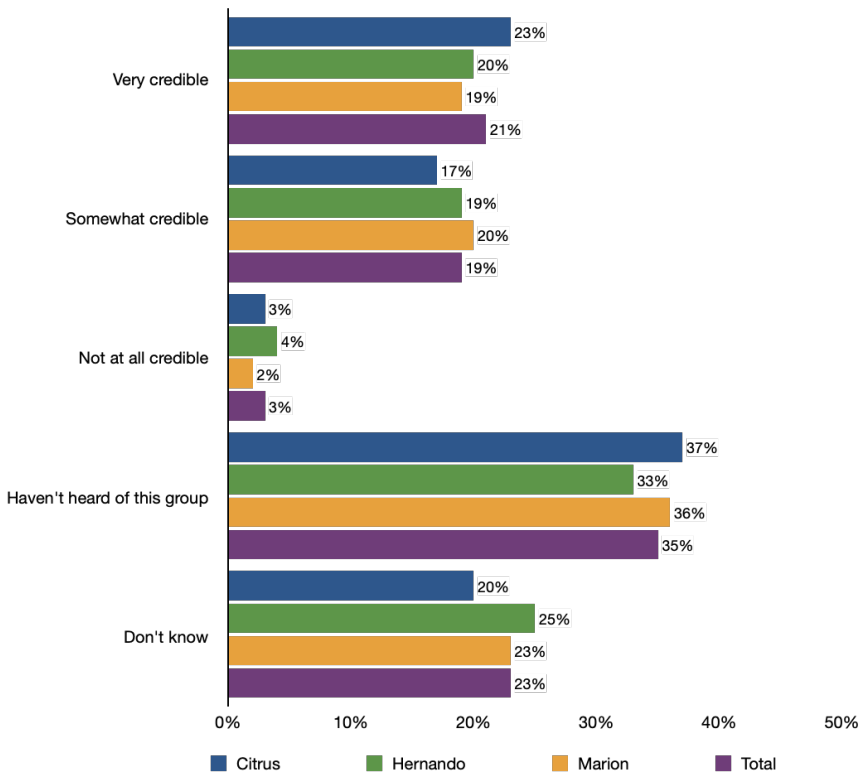
Southwest Florida Water Management District



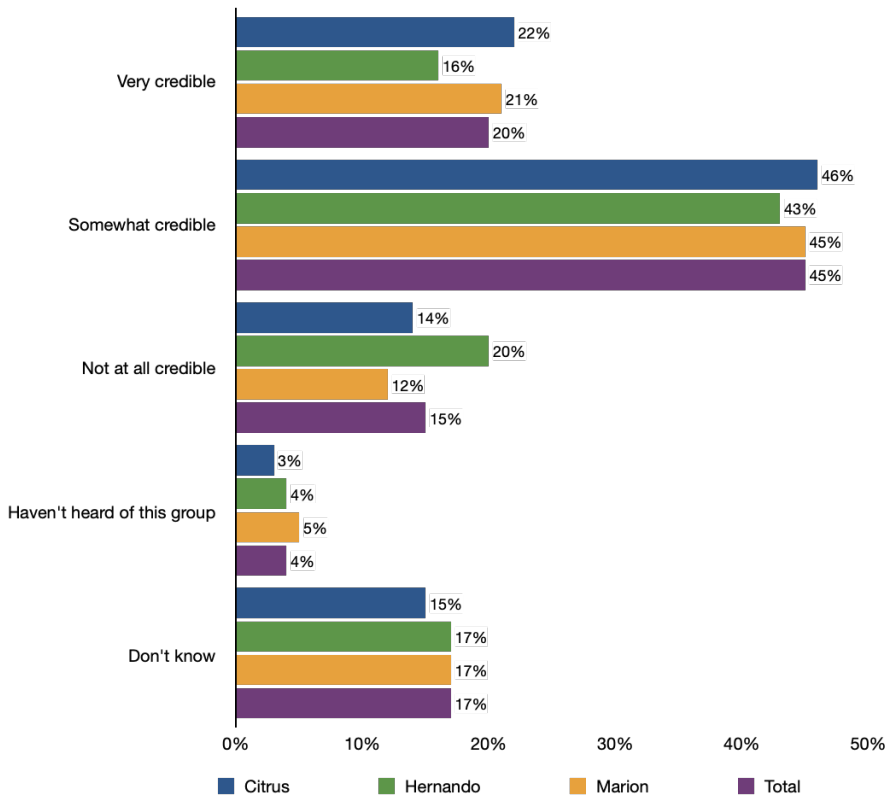
Rainbow River Conservation



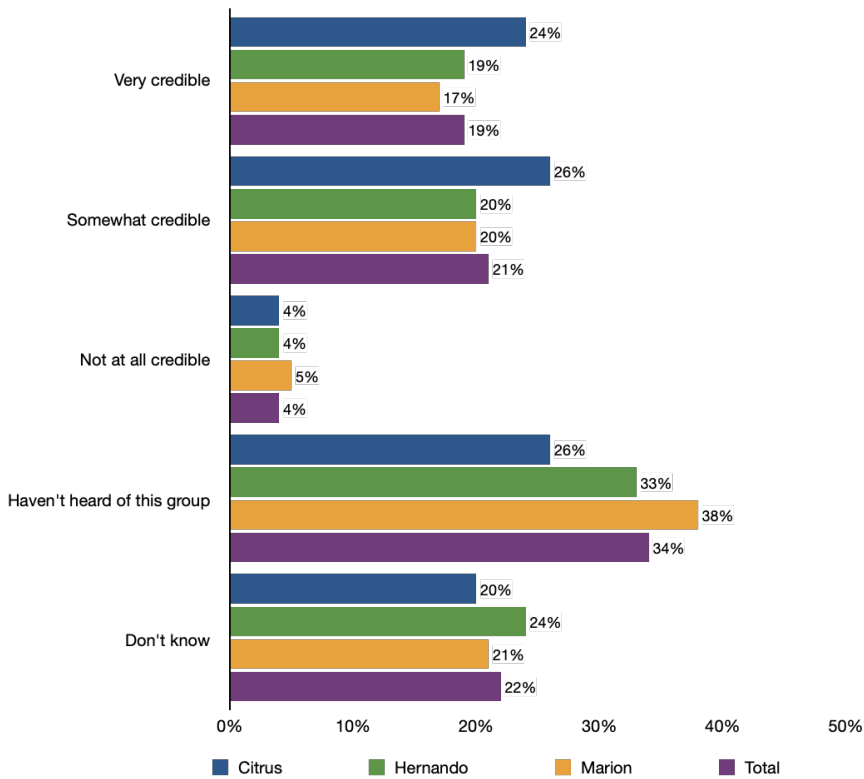
Florida Springs Institute



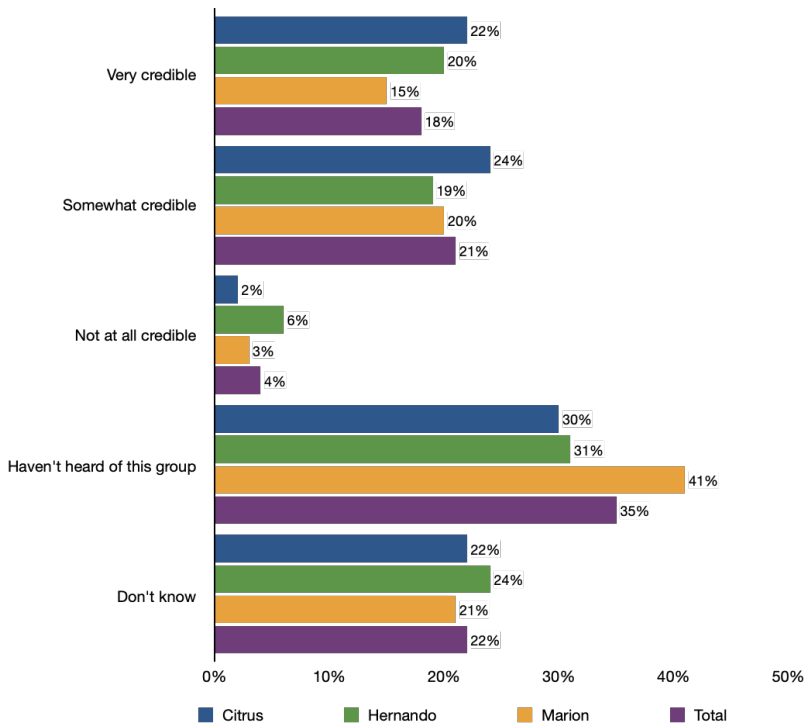
Your local city or county government



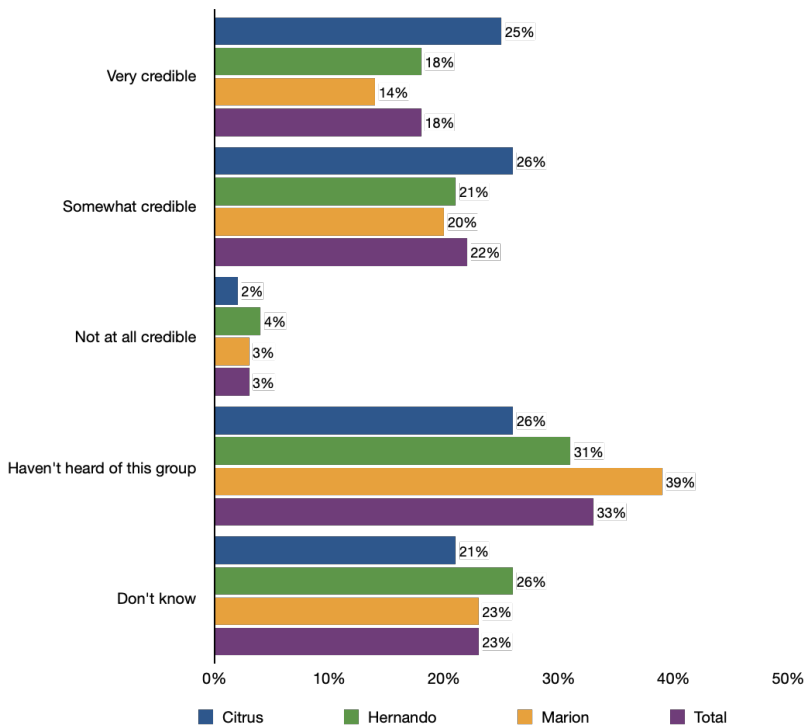
Save Crystal River



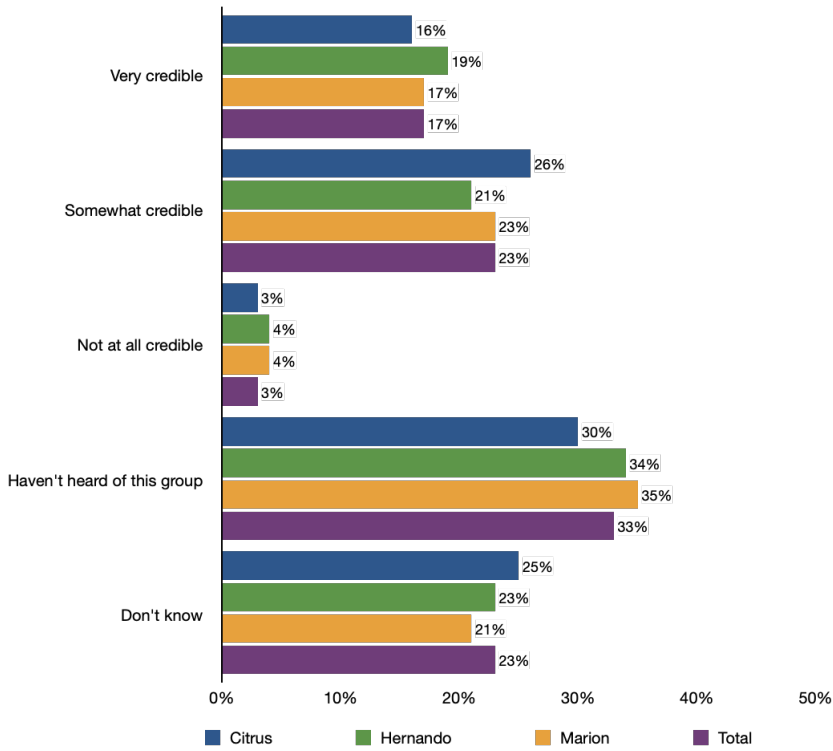
Withlacoochee Aquatic Restoration (WAR)



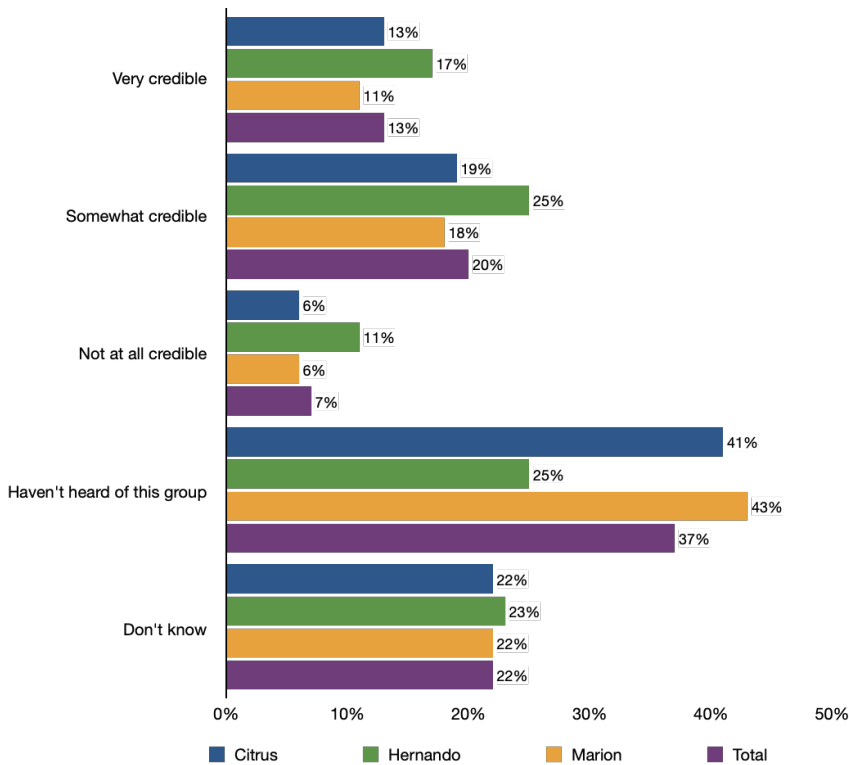
Homosassa River Alliance



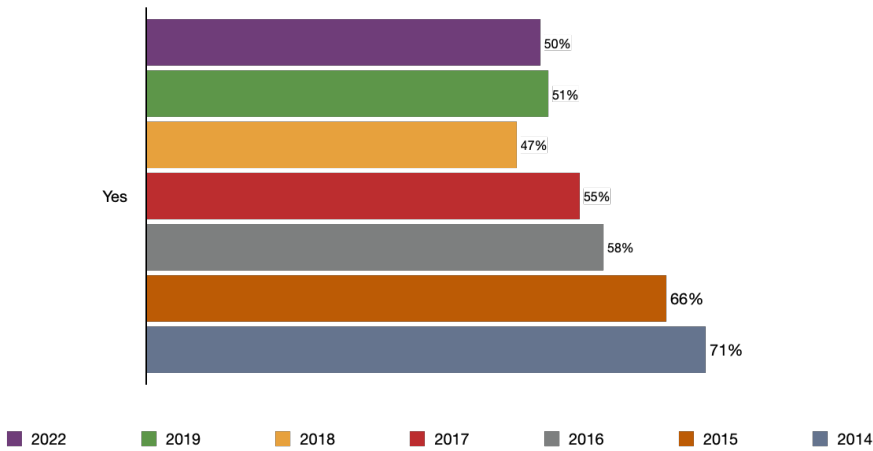
Florida Springs Council



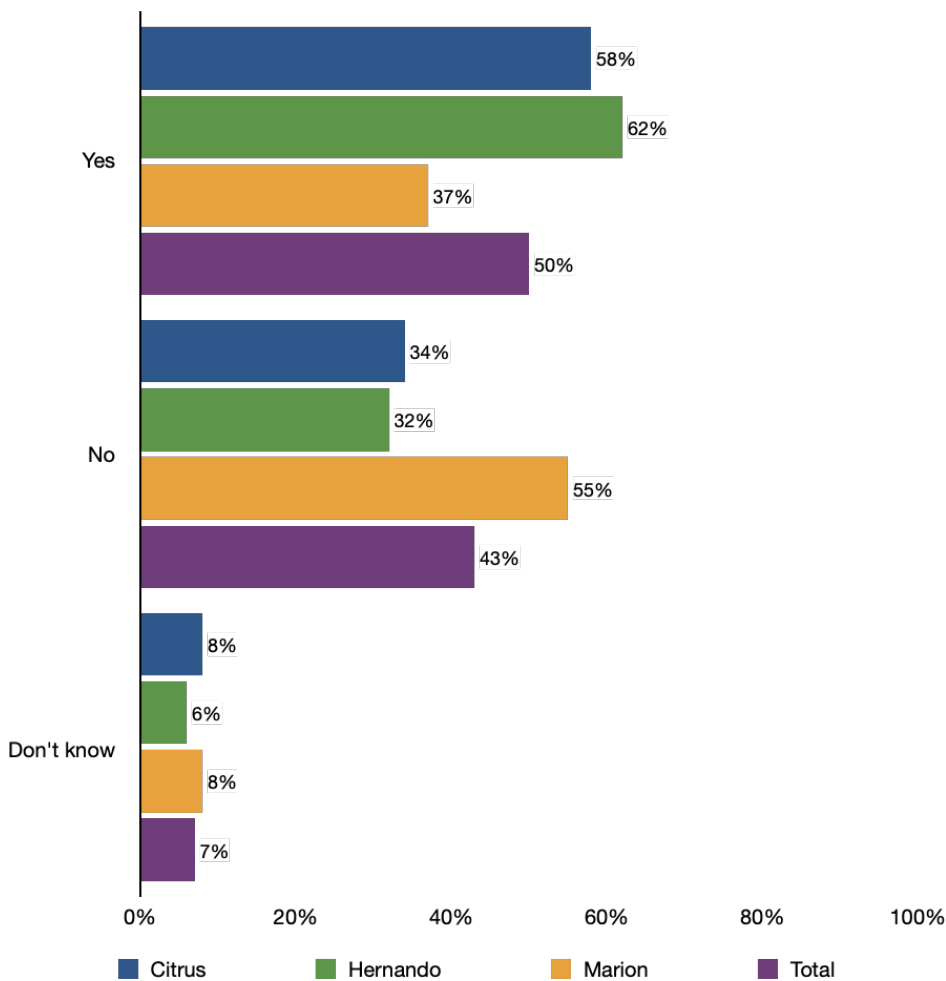
Weeki Wachee River Happenings Facebook group



Before today's survey, had you ever heard of the Southwest Florida Water Management District, sometimes called Swiftmud?



2022 Responses by County

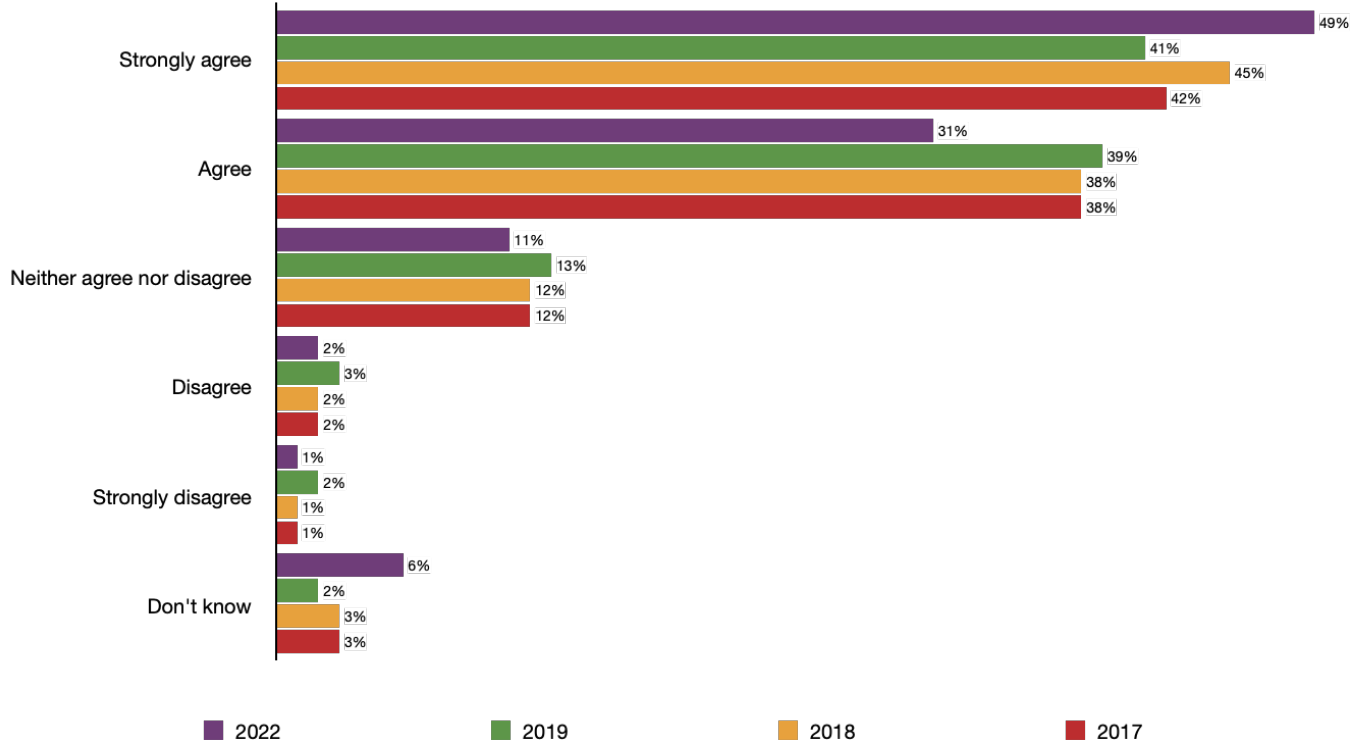


Below is a list of statements. Tell us how much you agree or disagree with each statement.

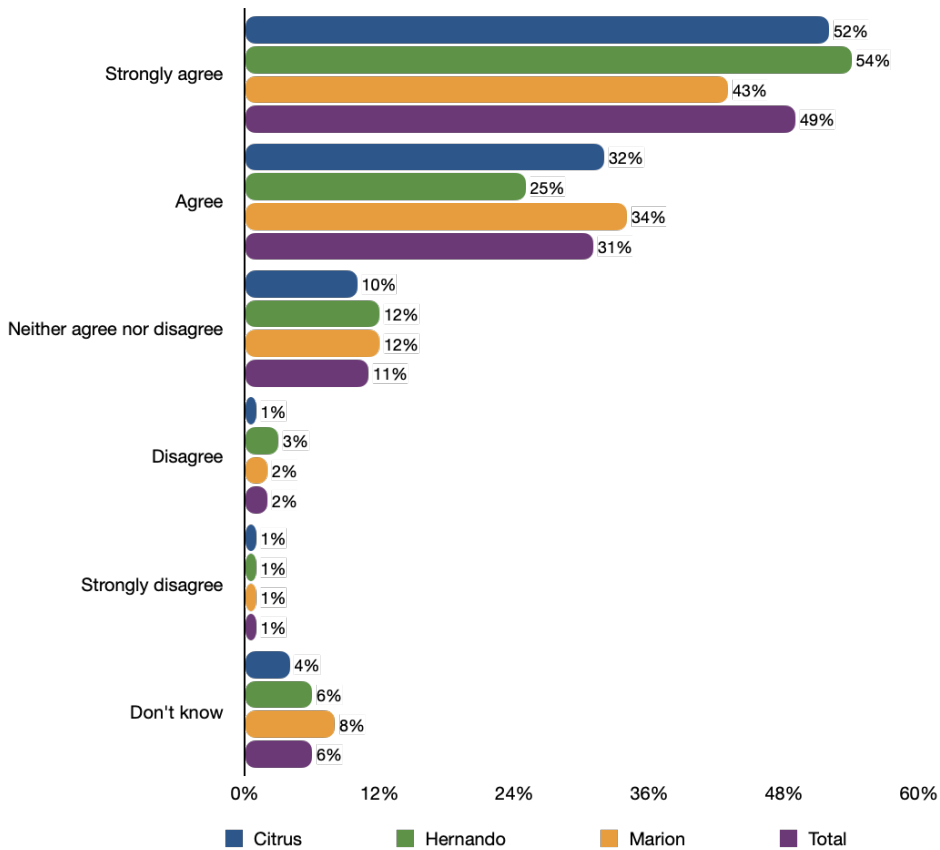
2022 Only	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	Don't know
A spring's flow is directly related to the amount of rainfall received.	9%	33%	23%	11%	2%	21%
The health of springs in your area is important to you.	49%	31%	11%	2%	1%	6%
Too much water from the aquifer is being pumped out of the ground for various uses.	21%	30%	20%	3%	2%	25%
Bottled water companies are taking too much water from some springs in your region.	21%	26%	20%	5%	2%	26%
The SWFWMD is the leader in taking the right actions to improve the health of the springs in your area.	12%	26%	24%	6%	3%	29%
The SWFWMD is committed to improving the health of the springs in your area.	16%	36%	19%	4%	3%	22%
The SWFWMD scientists have the expertise to maintain the springs in our area.	12%	34%	24%	5%	2%	24%
Some recreational activities done at springs and rivers may negatively impact the springs and rivers.	25%	40%	17%	4%	2%	12%
The springs' minimum flow levels that are set by the government are a protective measure for our springs systems.	12%	28%	22%	7%	2%	29%
A springs' flow is directly related to the amount of water pumped from the spring.	13%	31%	20%	7%	2%	28%
A springs' flow is directly related to the amount of groundwater pumped from the aquifer.	14%	32%	19%	6%	2%	28%
Lack of rain has the biggest effect on a springs' flow.	11%	32%	25%	10%	2%	19%
Each spring system is unique, and the challenges are different.	30%	41%	13%	3%	1%	12%

What follows are responses (by year, then 2022 by county) for each of the statements that were retaining over recent surveys for trending data reporting.

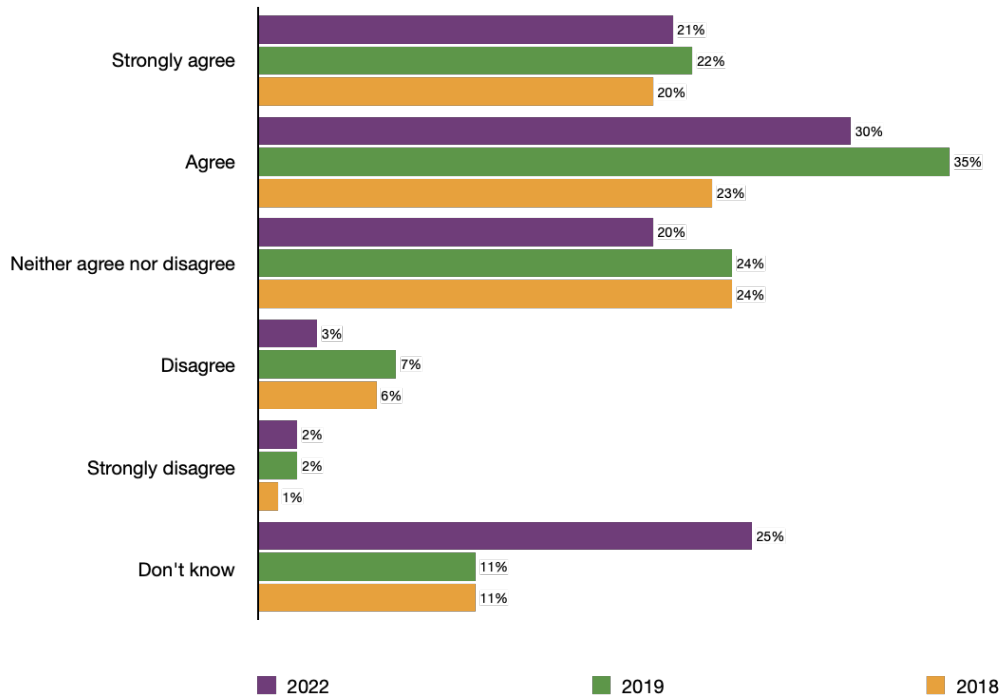
The health of springs in your area is important to you



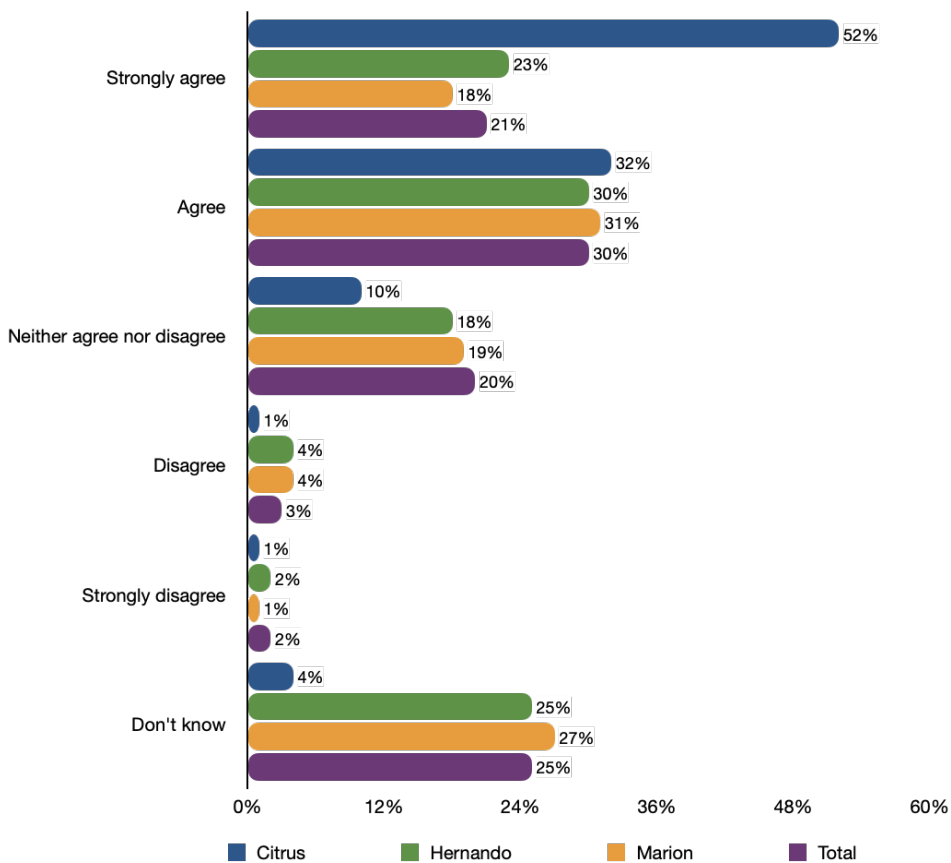
2022 Responses by County



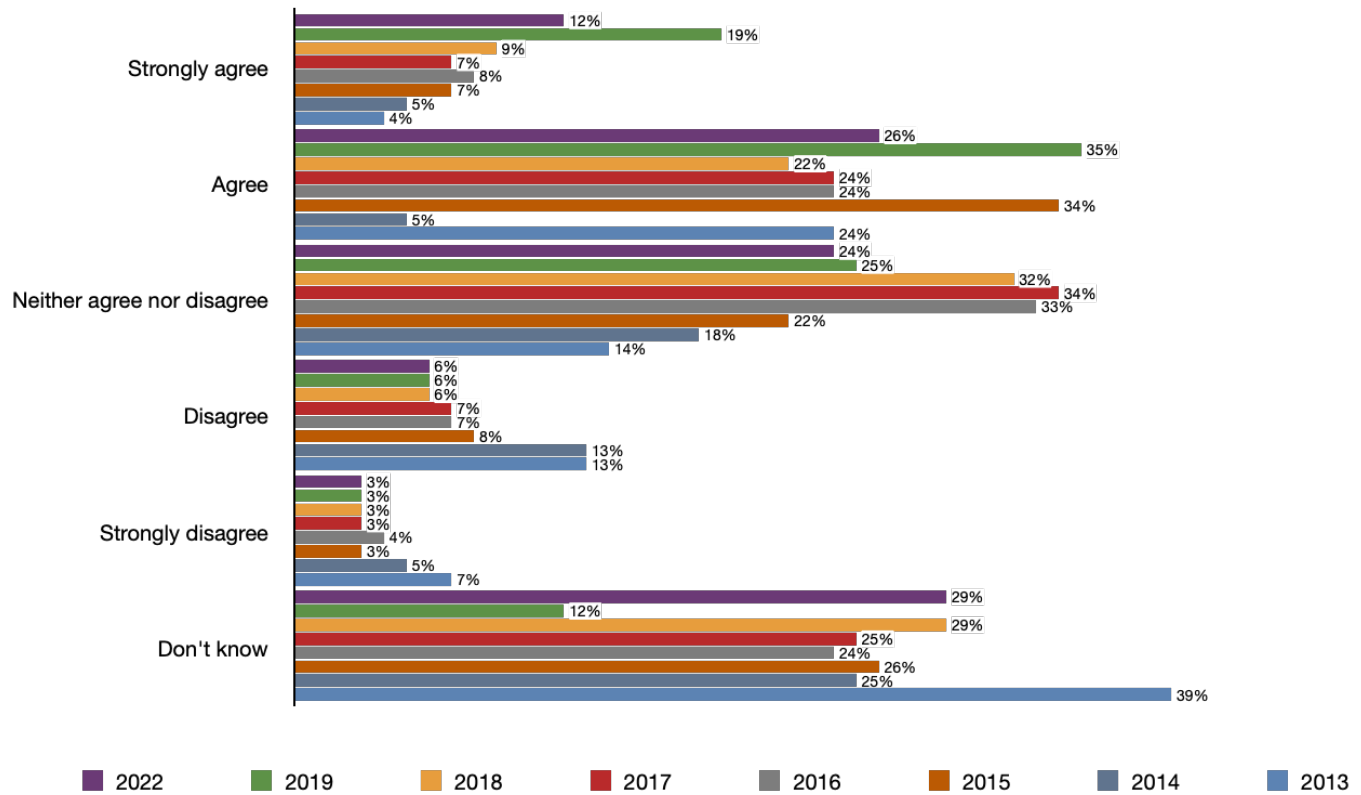
Too much water from the aquifer is being pumped out of the ground for various uses.



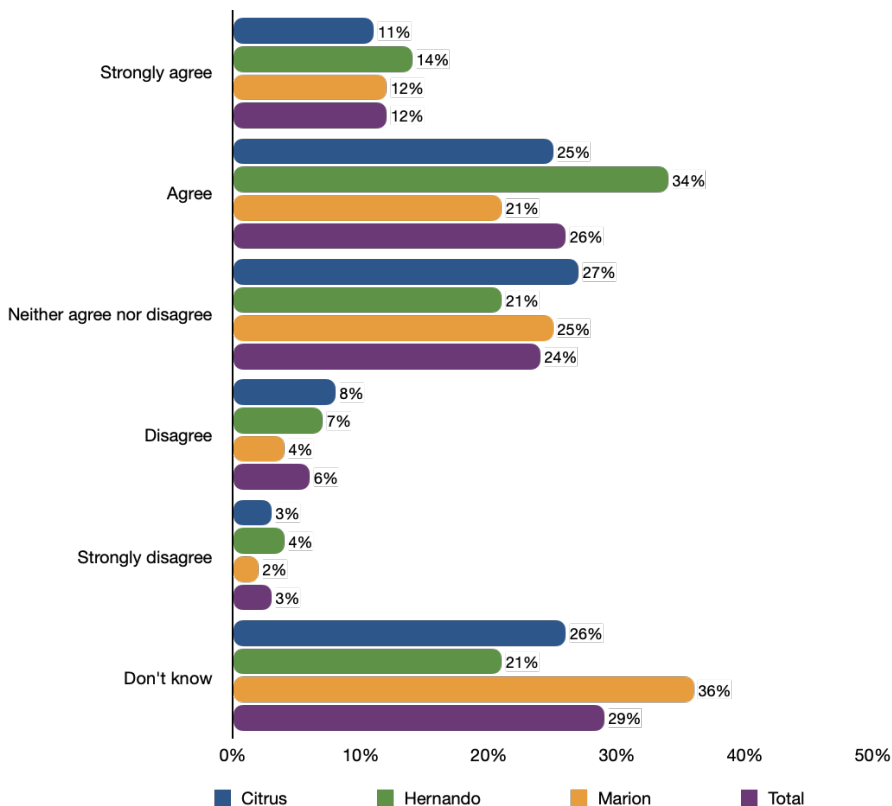
2022 Responses by County



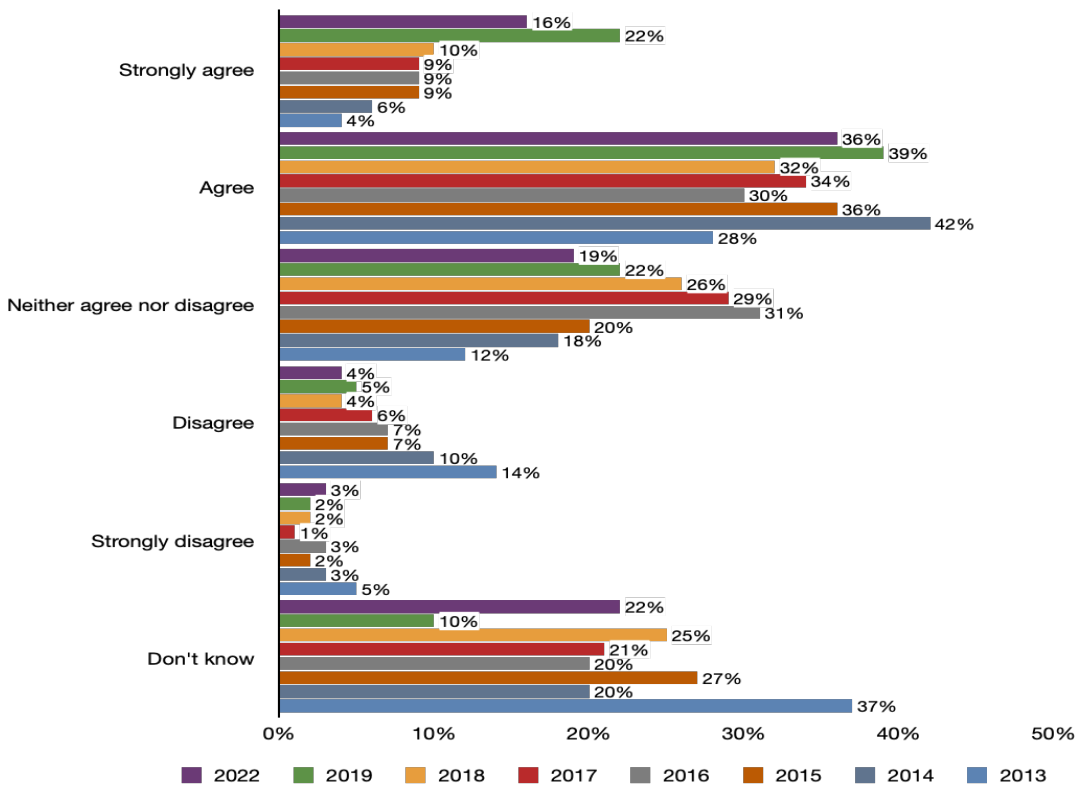
The SWFWMD is the leader in taking the right actions to improve the health of the springs in your area.



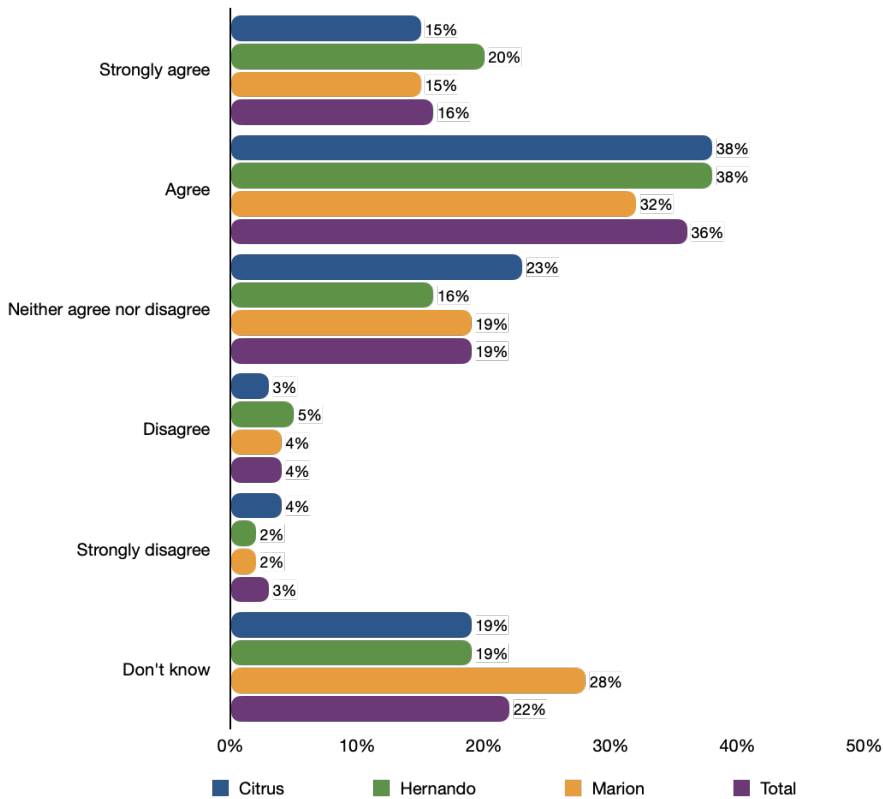
2022 Responses by County



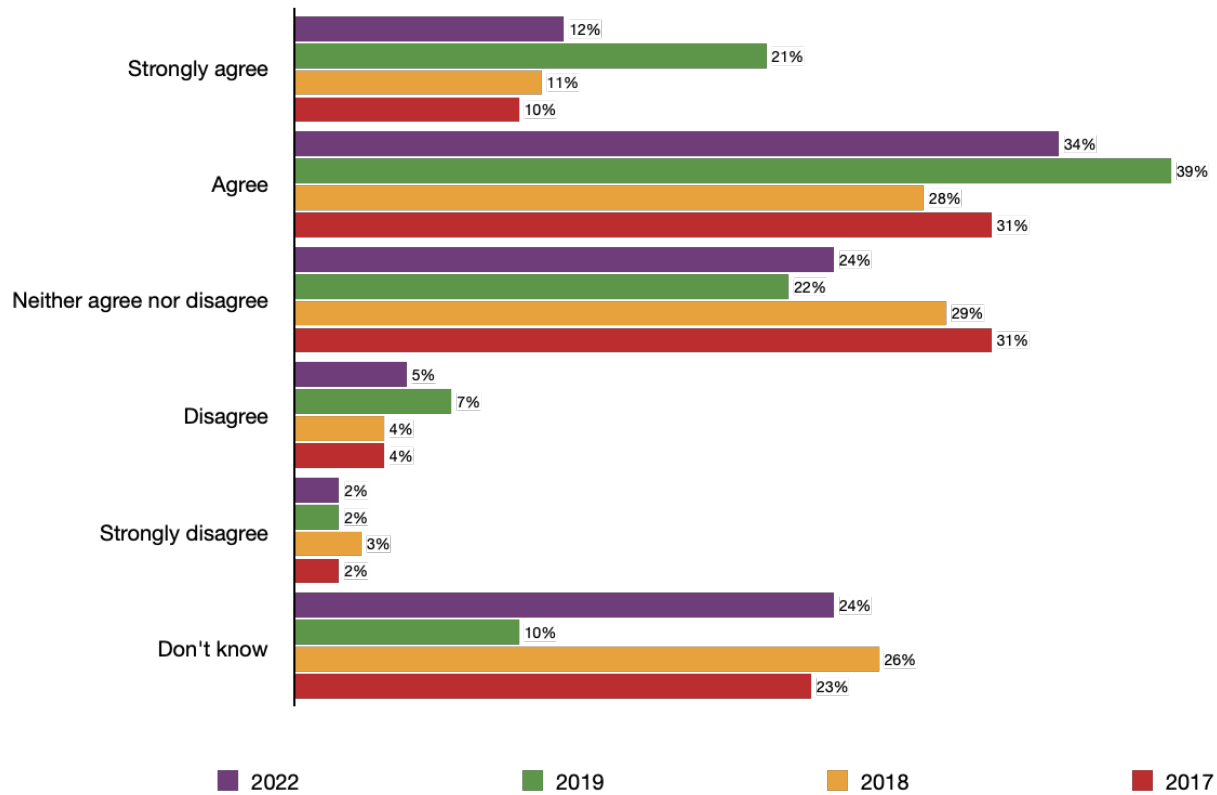
The SWFWMD is committed to improving the health of the springs in your area.



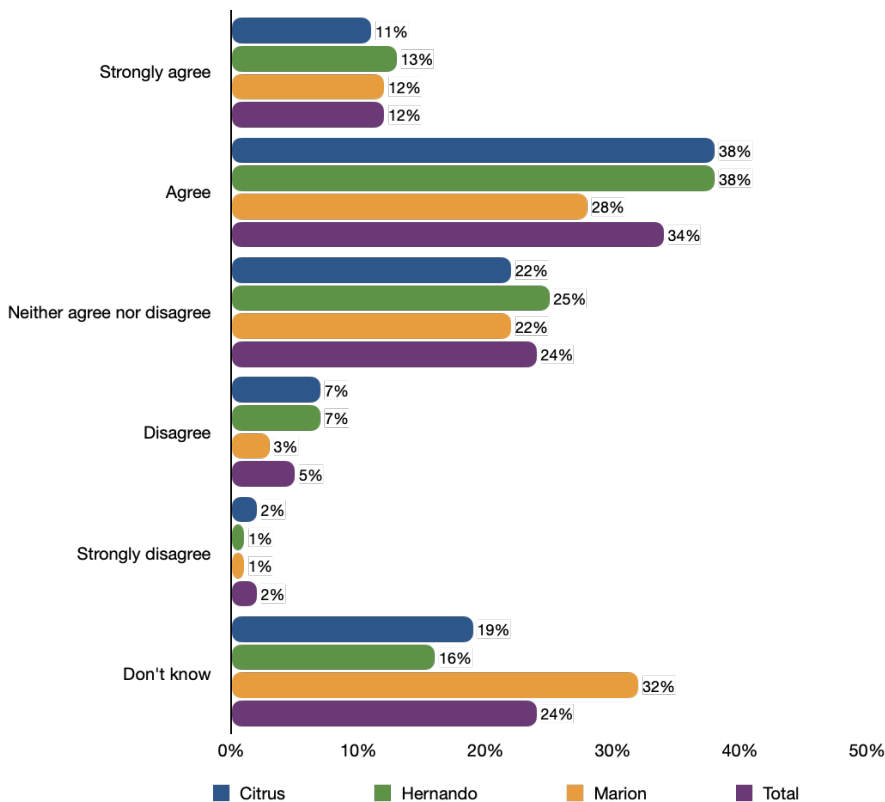
2022 Responses by County



The SWFWMD scientists have the expertise to maintain the springs in our area.



2022 Responses by County



Please tell me how much each of the following affects the health of the springs in your area. Use a scale of 1 to 5 where 1 means “not at all” and 5 means “a great deal.”

	“A Great Deal” 5	4	3	2	“Not at all” 1
Growth and development	37%	31%	22%	7%	3%
Over fertilization	30%	25%	30%	12%	3%
Too much water being used	27%	33%	26%	9%	5%
Rainfall	27%	29%	28%	11%	4%
Bottled water pumping	26%	29%	29%	10%	5%
Sea level rise	15%	18%	34%	22%	11%

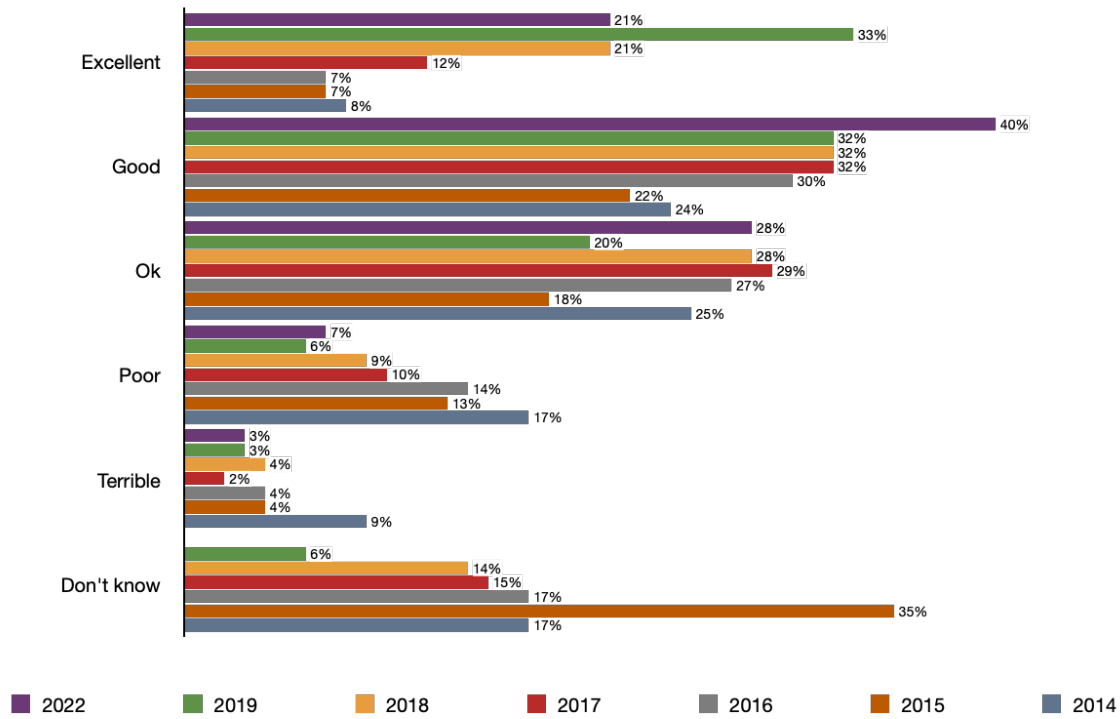
Note: This question was not included in the 2019 survey.

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

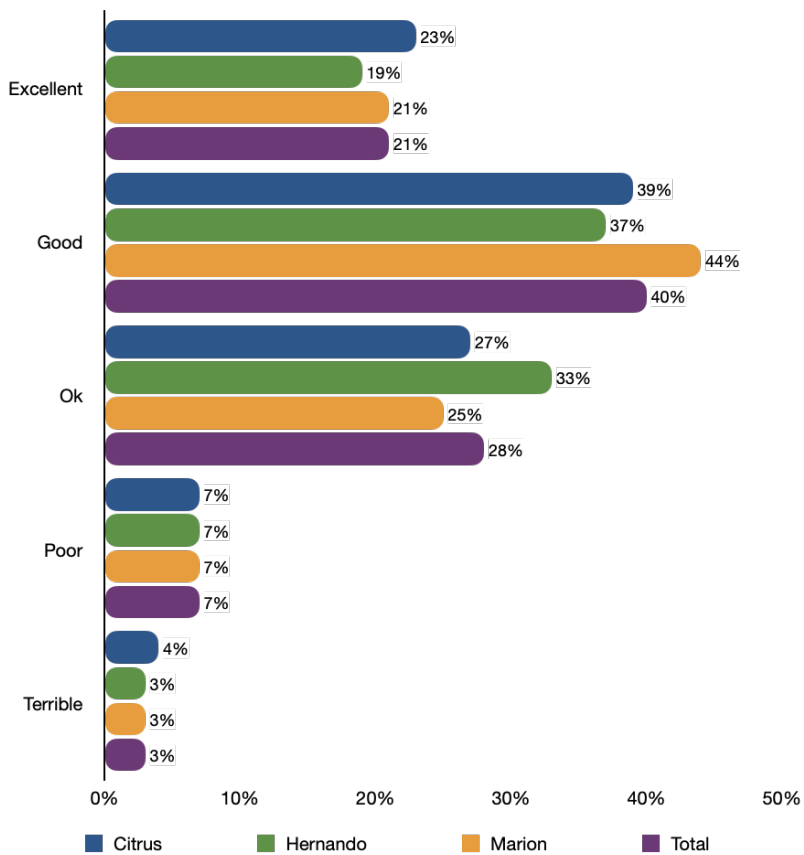
2022 Only	Excellent	Good	Ok	Poor	Terrible
Protecting springs in your area	21%	40%	28%	7%	3%
Educating people about what they can do to help protect the springs	18%	33%	28%	16%	4%
Ensuring that not too much water is drawn out of the ground for various uses	14%	25%	36%	17%	8%

*Only respondents who indicated they had heard of the Southwest Florida Water Management District in a previous question were asked to rate the performance of the District.

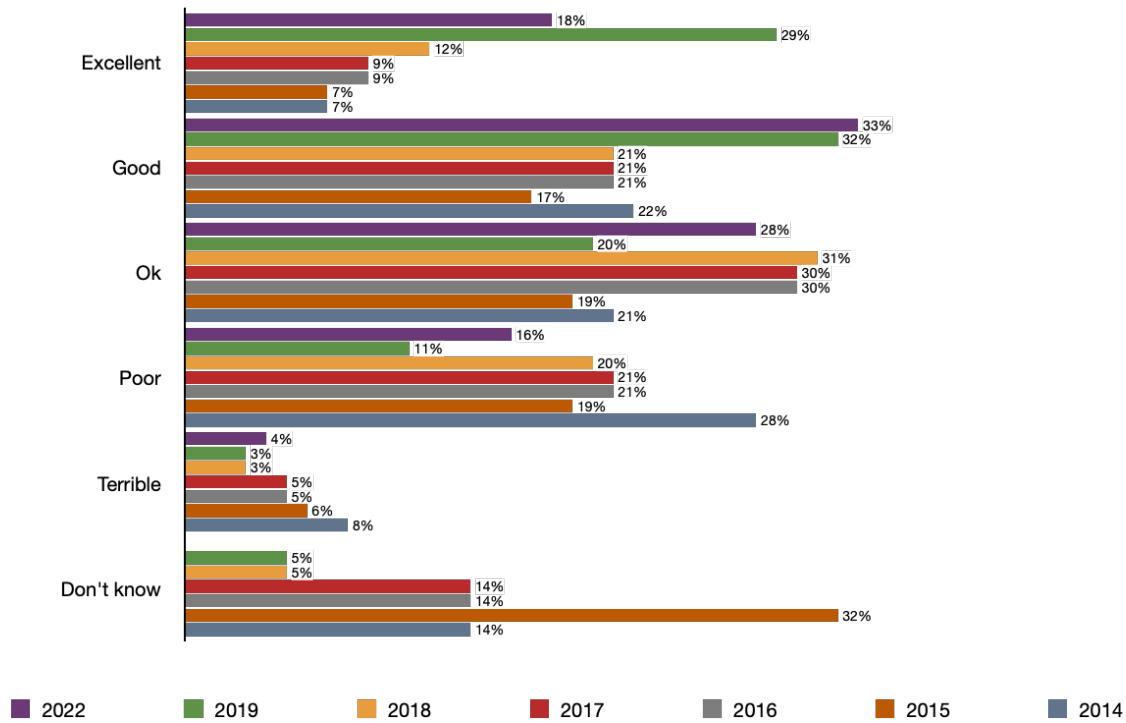
Protecting springs in your area



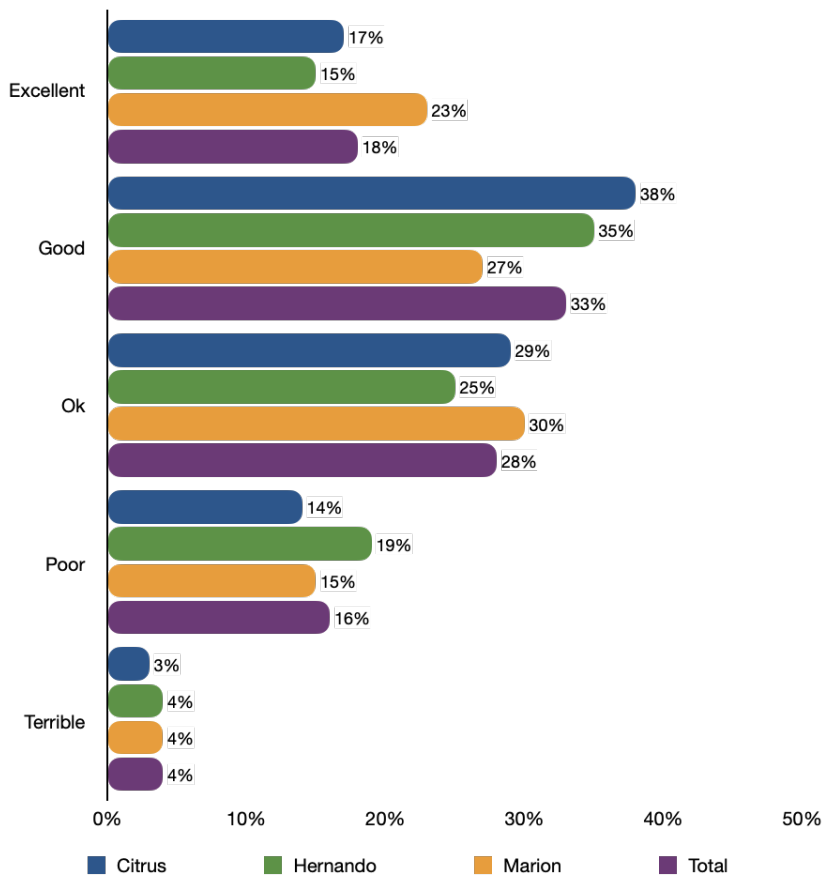
2022 Responses by County



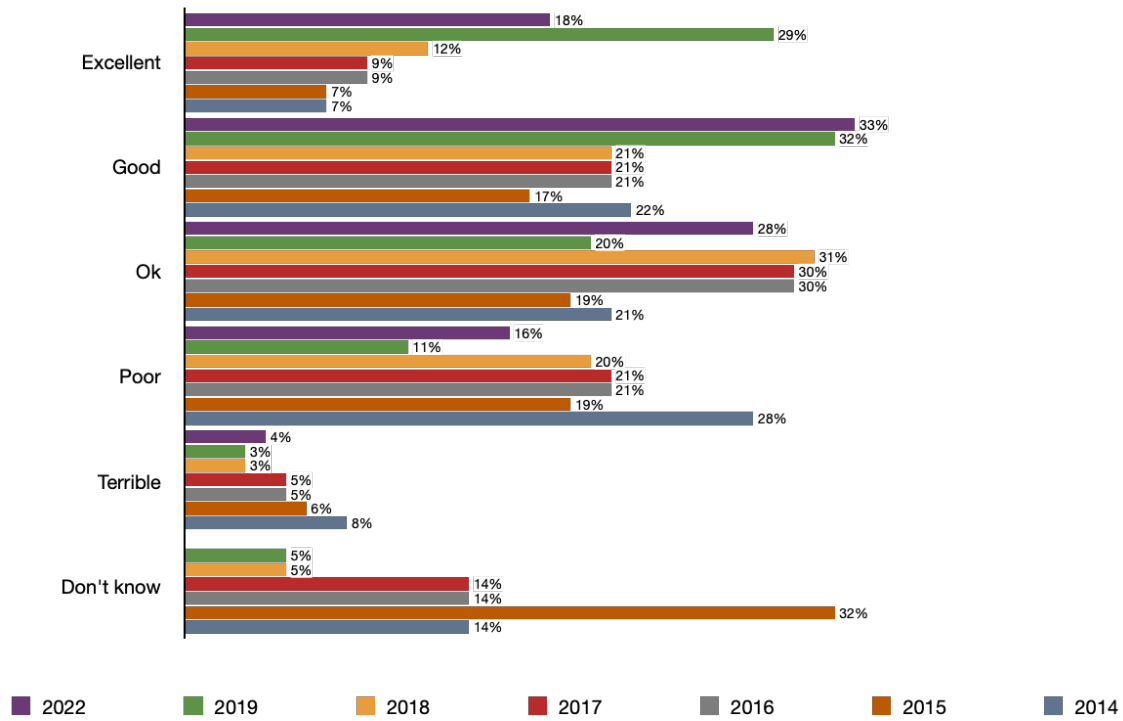
Educating people about what they can do to help protect the springs



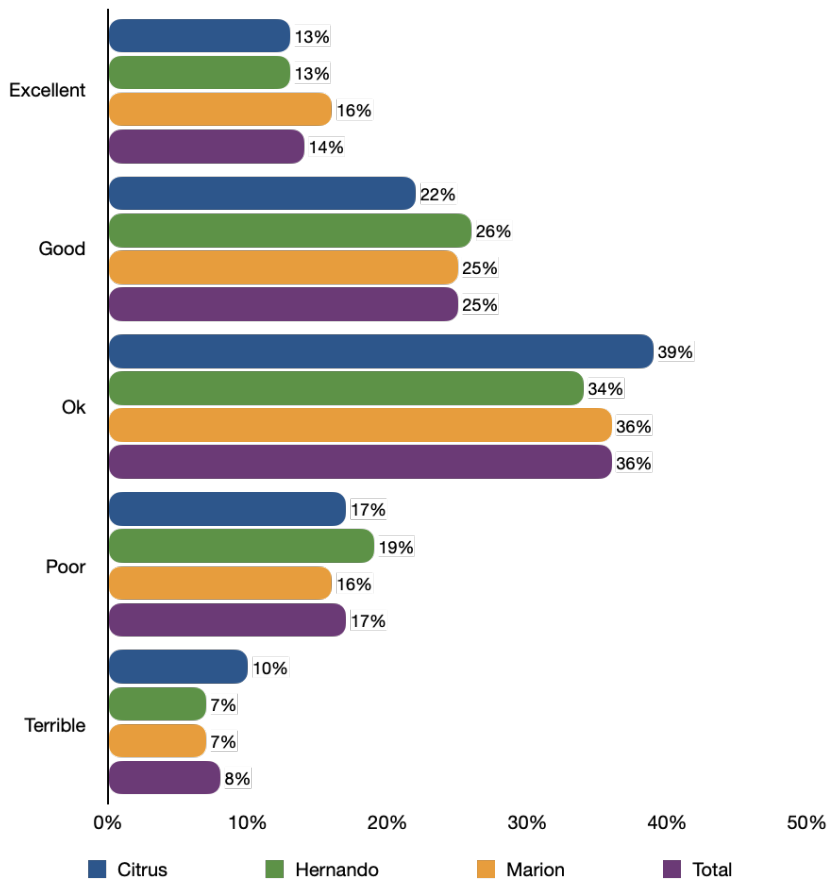
2022 Responses by County



Ensuring that not too much water is drawn out of the ground for various uses



2022 Responses by County



Appendix I: 2022 Northern Issues Survey

We are conducting a short public opinion poll of people in Florida. Your answers will remain anonymous. Please complete all the questions appearing on each page. Always scroll down to make sure you have answered each question before moving to the next page. When you are ready to move on to the next page, click the button located in the lower portion of the screen.

1. In which county do you live?

- a. Citrus
- b. Hernando
- c. Marion
- d. Other [Terminate]

2. Have you visited any springs in your area in the last 5 years?

- a. Yes
- b. No [Skip to Q4]
- c. Don't know [Skip to Q4]

3. Below is a list of springs in your area. Select all springs you visited in the past five years.

- a. Weeki Wachee Springs
- b. Chassahowitzka Springs
- c. Crystal River/Kings Bay
- d. Rainbow Springs
- e. Homosassa Springs
- f. Three Sisters Springs
- g. Hunter Springs
- h. Silver Springs
- i. Other. Please specify. [Text box]
- j. Don't specifically remember/Don't know

4. How would you rate the health of the springs in your area - would you say they are:

- a. Excellent
- b. Good
- c. OK
- d. Poor
- e. Terrible
- f. Don't know

5. Based on what you know or might have heard, please list up to three things you know or may have heard are wrong with the springs.

- a. Concern 1 [Text box]
- b. Concern 2 [Text box]
- c. Concern 3 [Text box]
- d. I haven't heard anything is wrong with the springs

6. Based on what you know or have heard, what challenges do local springs face? [Rating Scale]

- a. No challenges at the moment
- b. Too many people recreating on the river at one time
- c. Murky water
- d. Too much water being pumped out of the springs for development due to population growth
- e. Too much water being taken from the springs by bottled water companies
- f. Minimum flow requirements set by government don't protect springs.
- g. Not enough rainfall to replenish the springs
- h. Impaired water quality
- i. Other [Text box]

7. Where do you get information about springs? Please select all that apply.

- a. Community event
- b. Radio
- c. Internet search engines (Google, Bing, etc.)
- d. Social media (Facebook, Twitter, Instagram, YouTube, etc.)
- e. Television
- f. Newspaper print
- g. Newspaper online
- h. City/County/State government websites
- i. Water Management District website at WaterMatters.org
- j. Other websites, blogs, etc.
- k. Kayak shop
- l. Neighborhood newsletters/blogs/forums
- m. Friends/Family/Word of Mouth
- n. Advocacy or community groups
- o. I don't get information about springs
- p. Don't know

8. Below is a list of groups you may have heard of. Please tell us if you believe they are Very Credible, Somewhat Credible, or Not at all Credible. If you have never heard of them, let us know that too. [RANDOMIZE]

- a. Southwest Florida Water Management District
- b. Florida Department of Environmental Protection
- c. University of Florida/IFAS (Institute of Food and Agricultural Sciences)
- d. Florida Department of Agriculture and Consumer Services
- e. U.S. Fish and Wildlife Service
- f. Florida Springs Institute
- g. Florida Fish and Wildlife Conservation Commission
- h. Your local city or county government
- i. Florida Springs Council
- j. Save Crystal River
- k. Rainbow River Conservation
- l. Withlacoochee Aquatic Restoration (WAR)
- m. Homosassa River Alliance
- n. Weeki Wachee River Happenings Facebook group

9. Before today's survey, had you ever heard of the Southwest Florida Water Management District, sometimes called Swiftmud?

- a. Yes
- b. No [Skip to Q11]
- c. Don't know [Skip to Q11]

10. Below is a list of statements. Tell us how much you agree or disagree with each statement using the scale Strongly agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree, or Don't Know.

- a. A spring's flow is directly related to the amount of rainfall received.
- b. The health of springs in your area is important to you.
- c. Too much water from the aquifer is being pumped out of the ground for various uses.
- d. Bottled water companies are taking too much water from some springs in your region.
- e. The Southwest Florida Water Management District is the leader in taking the right actions to improve the health of the springs in your area.
- f. The Southwest Florida Water Management District is committed to improving the health of the springs in your area.
- g. The Southwest Florida Water Management District scientists have the expertise to maintain the springs in our area.
- h. Some recreational activities done at springs and rivers may negatively impact the springs and rivers.
- i. The springs' minimum flow levels that are set by the government are a protective measure for our springs systems.
- j. A springs' flow is directly related to the amount of water pumped from the spring.
- k. A springs' flow is directly related to the amount of groundwater pumped from the aquifer.
- l. Lack of rain has the biggest effect on a springs' flow.
- m. Each spring system is unique, and the challenges are different.

11. Please tell me how much each of the following affects the health of the springs in your area. Use a scale of 1 to 5 where 1 means "not at all" and 5 means "a great deal."

- a. Over fertilization
- b. Growth and development
- c. Bottled water pumping
- d. Too much water being used
- e. Sea level rise
- f. Rainfall

12. Using a scale of Excellent, Good, OK, Poor and Terrible, how would you rate the Southwest Florida Water Management District's performance in: [Only display if "Yes" in Q9]

- a. Protecting springs in your area
- b. Educating people about what they can do to help protect the springs
- c. Ensuring that not too much water is drawn out of the ground for various uses

13. Which category best fits your age?

- a. Under 25
- b. 25 – 45

- c. 46 – 65
- d. Over 65
- e. Prefer not to answer

14. Do you live full-time or part-time in Florida?

- a. Full-time
- b. Part-time
- c. Prefer not to answer