Weeki Wachee River Annual Report



This report represents data collected October 19 - 26, 2023

Submitted by

Sara Fay Project Lead

SWFWMD Research Manager Robin Grantham



Table of Contents

Executive Summary	1
Sample Demographics	5
River Behaviors & Opinions	8
Appendix I: 2023 Weeki Wachee River Annual Survey	27
Appendix II: "Other" text responses Q3	29
Appendix III: "Other" text responses Q4	30
Appendix IV: "Other" text responses Q5	30
Appendix V: "Other" text responses Q7	31
Appendix VI: Agreement statements all counties	34

Executive Summary

Introduction & Background

The Southwest Florida Water Management District and Hernando County, with support from the Florida Department of Environmental Protection, carried out a study regarding the recreational use of the Weeki Wachee River. The popularity of this destination as a recreational hub has highlighted concerns surrounding the degradation of the river and its ecosystems.

A study conducted by Wood Environment & Infrastructure Solutions showed that managing the kinds of activities that occur on the river and limiting where certain activities can occur may be as important, if not more important, as capping the number of users. Science-based recommendations were provided at the conclusion of the study with management options that could reduce the negative impacts of recreation on the river.

In February 2021 the District collaborated with The Taproot Agency to gather initial data in a social media presurvey regarding visitor behaviors at the river. A District-led campaign began on March 1, 2021, to educate targeted audiences about the recreational best management practices that will help protect the Weeki Wachee River and reduce ecological impacts. Following the campaign, a post-survey was conducted via social media in November 2021 to determine whether behaviors have changed because of the campaign. The first annual survey was conducted via social media in 2022.

In July 2023, a request was made to the Florida Fish & Wildlife Conservation Commission for the establishment of a Weeki Wachee Springs Protection Zone. This zone would apply from the spring boil within in Weeki Wachee State Park to approximately 5.61 miles downriver. The protection in this designated zone would prohibit anchoring, mooring, beaching, or grounding of vessels within the spring and the associated portions of the spring run.

This report provides data gathered during an annual follow-up survey conducted via social media in October 2023 to monitor potential continued behavior change as well as initial testing of knowledge of, and likelihood of complying with, the new Springs Protection Zone rules. The additional questions and responses related to this topic are highlighted in yellow in Appendix I where all survey questions are provided.

Methods of Data Collection and Analysis

The Taproot Agency deployed a social media survey using the ads function of the Facebook platform. The ad was active October 19 – 26, 2023, and gathered 540 total responses.

As in previous Weeki Wachee surveys, parameters were set for the Facebook ad to run in the geographic area of the following Florida counties: Citrus, Hernando, Hillsborough, Pasco, Pinellas and Polk. Respondents were only excluded based on whether they had visited the Weeki Wachee River. If their response was "more than five years ago," "don't know" or "never visited," they were terminated from the survey.

To avoid potentially skewed results/reactions and mirror the pre-survey, the members/followers of the following Facebook groups were also removed from this post-survey data: Friends of Weeki Wachee Preserve, Weeki Wachee River Rescue Team, Weeki Wachee River Rangers. 64% of respondents indicated not being a member of any of the social media groups, including those we were removing from this data.

The survey sample resulted in a theoretical margin of error of approximately +/-4% at the 95% confidence level.

Post-Survey Insights

The following insights were gleaned from the 2023 annual survey data represented in this report as it was compared to responses in previous surveys.

- Additional options were provided in the 2023 annual survey for respondents regarding how they planned for their trip(s) to the Weeki Wachee River. In previous surveys, many respondents wrote in that they were either local residents or had previously visited the area.
 - Responses for these two additional options in the 2023 survey were:
 - I'm a local resident 57%
 - Visited previously 37%
 - Drops in two responses to this question (search engines and word of mouth) may have resulted due to the inclusion of these new options.
 - As anticipated, respondents selecting the "Other" write-in option dropped from 30% (2022) to 4% (2023).
- Regarding exiting vessels on the river, responses remained consistent with previous surveys:
 - o 3%-point decrease in those indicating they do not exit their vessel while on the river
 - o 4%-point increase in those indicating they "let it float freely"
 - Of note, 23% of those choosing to write in a response in the other category mentioned anchoring or mooring their vessels while on the river. This indicates continued education will be needed regarding the new Springs Protection Zone rules prohibiting such behavior.
- Opinions recorded in how many respondents agreed with statements regarding actions while on the river were similar with the 2022 survey.
 - 5%-point decrease was recorded in those who strongly agree that climbing on banks and sand point bars damages the river. In addition to this decrease, three responses saw an increase:
 - Agree 1%-point increase
 - Disagree 5%-point increase
 - Strongly disagree 2%-point increase
 - Respondents remain neutral on whether sandy white bottoms are a sign of an unhealthy spring, indicating an area where further education on what this condition in the spring means to the health of the spring.
 - Small shifts (+/- 3% points) occurred in respondents opinions regarding whether people should stay in their vessels on the river, though there was a 7%-point increase in those who strongly disagreed with the statement.
- All previous surveys tested respondents' ability to recognize current challenges with the river. The following changes were recorded in the 2023 survey:

- A 1%-point increase was recorded between the 2022 and 2023 annual survey as to the number of respondents who don't believe the river is currently facing any challenges.
- Decreases or no change were recorded in recognition of the following challenges, topics covered in the education provided in the campaign.
 - Trampled vegetation no change
 - Too many people recreating on the river at one time 4%-point decrease
 - Worn down or eroded shorelines 3%-point decrease
- o Increases in recognition were recorded for the following challenges:
 - Too many kayakers 8% points
 - Climbing and rope swinging from trees 5% points
- The 2023 survey was the second to allow respondents to select "Too many motorized vehicles" as a current challenge the river is facing. There was a 4%-point increase in recognition of this challenge.
- As in all previous surveys, when respondents were asked how likely they were to take certain actions if they knew it would benefit the health of the river, the majority responded they were very likely to take those actions.
 - It is worth noting, there were decreases in respondents indicating they were very likely to take the following actions:
 - Stay in the vessel when possible 7% points
 - If you have to leave the vessel, tie off in shallow waters 2% points
 - Avoid docking on riverbanks 12% points
 - Don't trample vegetation or kick up silt 2% points
 - Avoid climbing on banks and walking on sand point bars 11% points
- As in previous surveys, internet and social media outlets were two of the most memorable vehicles for campaign messaging. While there was no change in the percentage of respondents indicating they saw messages on the internet about protecting the river, there was a 10%-point increase in those recalling messaging on social media.
- Finally, the 2023 annual survey also tested knowledge of the new springs protection zone.
 - o 69% of respondents indicated they had heard information about the new springs protection zone.
 - Those who indicated they had heard information were then asked what activities they recalled would be restricted with these new rules. The top three selected were:
 - No anchoring, mooring, grounding or beaching of vessels 90%
 - You must stay in your vessel at all times 47%
 - No swimming or snorkeling 25%

- A new statement was added to the likelihood question in the 2023 annual survey: "Follow the new Springs Protection Zone rules."
 - 66% of respondents indicated they were very likely to take this action (only asked of those who responded that they had heard of the Springs Protection Zone).
- There is a positive indication that a majority of people have not only heard about the new springs protection zone, but they also plan to follow the rules associated with these restrictions, and most recognized the correct restriction from a list of possibilities.

Sample Demographics

When was the last time you visited the Weeki Wachee River?

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
Within in the last six months	42%	51%	50%	68%
6 months to one year ago	21%	18%	16%	12%
One to five years ago	26%	19%	21%	14%
More than five years ago*	6%	7%	6%	4%
Don't know*	1%	1%	1%	<1%
Never visited*	4%	4%	6%	2%

* Respondent was terminated as not qualified for this survey.

In which Florida county do you live?

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
Citrus	9%	11%	10%	5%
Hernando	29%	19%	32%	43%
Hillsborough	12%	14%	4%	7%
Pasco	18%	19%	7%	15%
Pinellas	20%	24%	11%	15%
Polk	7%	4%	4%	3%
Other*	2%	8%	24%	8%
I don't live in FL	4%	2%	8%	4%

*Respondents were given the option to enter the name of their Florida county in a text box. Not all respondents who select the "Other" choice provided additional information. Responses that were recorded (single response unless otherwise noted): Bradford (1), Charlotte (1), Lake (6), Lee (1), Marion (5), Martin (1), Okaloosa (1), Orange (1), Sarasota (1), and Sumter (6).

The following table provides a breakdown by timeframe of when residents last visited the river.

Responses for each category are listed left to right as follows: 2021 Pre / 2021 Post / 2022 Annual / 2023 Annual.

(2021 Pre / 2021 Post / 2022 Annual / 2023 Annual) Recorded as %	With	in the la	st six mo	nths	6 m	onths to o	ne year a	igo	One to five years ago							
Citrus	44	47	42	56	20	13	35	11	36	40	23	33				
Hernando	56	71	69	83	23	14	14	9	21	15	17	9				
Hillsborough	41	58	42	71	21	24	17	21	38	18	42	8				
Pasco	48	63	44	71	27	19	17	11	26	19	39	18				
Pinellas	44	67	39	59	29	16	13	23	27	16	45	19				
Polk	36	69	75	61	24	15	17	22	39	15	8	17				
Other	22	55	36	65	11	23	29	6	67	23	35	29				
I don't live in FL	52	0	24	79	10	33	29	11	38	67	48	11				

River Behaviors & Opinions

Which of the following resources do you use when planning a trip to the Weeki Wachee River? Select all that apply.

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
YouTube videos	5%	8%	8%	4%
Social media pages (Facebook, Twitter)	19%	25%	27%	18%
Search engines (Google, Bing)	26%	25%	28%	11%
Travel Websites	3%	5%	5%	2%
WeekiWachee.com	20%	16%	17%	9%
Visitors Bureau	2%	2%	3%	<1%
Word of Mouth	30%	27%	34%	12%
I'm a local resident**				57%
Visited previously**				37%
Other*	30%	25%	30%	4%

* Responses entered in the "Other" text box are recorded in Appendix II.

** Choice only included beginning with the 2023 Annual Survey due to the high rate of write-in responses of this nature on past surveys.

Please select up to three recreation activities you engage in while on the Weeki Wachee River.

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
Boat (motorized vehicle)	13%	14%	19%	22%
Kayak or Canoe	77%	69%	80%	75%
Paddleboard	7%	18%	15%	22%
Fishing	N/A	N/A	10%	10%
Tubing	6%	5%	6%	5%
Swim or snorkel	41%	39%	41%	53%
Rope Swing	3%	5%	4%	3%
Observe wildlife (manatees, birds, etc.)	50%	50%	51%	55%
Camp	2%	2%	2%	2%
Hike	4%	4%	4%	3%
Picnic	9%	6%	7%	7%
Other*	3%	3%	3%	3%

* Responses entered in the "Other" text box are recorded in Appendix III.

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
I don't leave my vessel while I'm on the river	32%	33%	38%	35%
Park on riverbanks or sand point bars	40%	29%	26%	25%
Tie off in shallow waters	19%	24%	24%	23%
Let it float freely	5%	8%	5%	9%
Other*	4%	5%	8%	7%

If you exit your vessel, where do you leave it while on the river?

* Responses entered in the "Other" text box are recorded in Appendix IV.

How much do you agree or disagree with the following statements?

Responses for each category are listed left to right as follows: 2021 Pre / 2021 Post / 2022 Annual / 2023 Annual.

ALL RESPONDENTS (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Ag	ree		Ne	either A Disa		ior		Disa	gree		St	rongly	Disagr	ee
People should stay in their vessels on the river.	15	23	23	21	17	19	16	14	27	20	21	18	30	24	29	29	12	15	11	18
Climbing on banks and sand point bars damages the river.	28	40	41	36	31	28	26	27	23	17	20	18	15	11	8	13	4	4	4	6
Climbing trees and rope swings damages trees.	28	33	38	37	30	26	28	29	22	22	15	17	16	13	14	12	5	7	5	6
Sandy white bottoms are a sign of an unhealthy spring.	7	10	11	12	8	10	15	14	47	50	42	43	29	23	25	22	9	10	8	9
The number of vessels should be limited on the river.	31	41	36	38	42	33	34	28	13	12	13	16	11	10	11	13	3	5	6	5
Vessels should only be allowed to park in designated spots on the river.	26	34	33	34	34	31	27	32	15	12	17	13	18	14	18	14	7	9	5	7
The river is too crowded with visitors.	31	39	35	40	27	29	31	28	28	19	24	20	11	9	8	11	4	3	2	2
Vegetation is a sign of a healthy spring.*	-	-	-	40	-	-	-	41	-	-	-	15	-	-	-	4	-	-	-	1

* This statement was added beginning with the 2023 Annual Survey.

Note: what follows is a breakdown of the agreement statements by county of residence (includes the "other" and "I don't live in FL" as well).

Note: A breakdown of each statement with responses from all six counties appears as Appendix IV in this report.

CITRUS COUNTY (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agı	ree		Ne	either A Disa		IOr		Disa	gree		St	rongly	Disagro	ee
People should stay in their vessels on the river.	16	30	23	25	26	17	27	22	20	17	15	17	29	20	19	28	10	10	15	8
Climbing on banks and sand point bars damages the river.	39	33	54	42	33	27	19	28	12	20	8	14	12	7	15	17	4	7	4	0
Climbing trees and rope swings damages trees.	35	30	54	33	28	20	23	42	12	20	12	11	16	13	8	11	10	10	4	3
Sandy white bottoms are a sign of an unhealthy spring.	2	3	8	11	16	10	19	8	39	33	50	39	31	30	19	25	12	17	4	17
The number of vessels should be limited on the river.	24	37	35	36	39	37	42	31	20	7	8	14	14	10	12	17	4	3	4	3
Vessels should only be allowed to park in designated spots on the river.	26	33	38	42	39	23	35	36	8	7	4	8	24	17	12	8	4	13	12	6
The river is too crowded with visitors.	24	33	38	39	29	13	31	31	33	30	23	25	10	10	8	6	4	7	0	0
Vegetation is a sign of a healthy spring.*	-	-	-	36	-	-	-	44	-	-	-	14	-	-	-	6	-	-	-	0

HERNANDO COUNTY (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agi	ree		Ne	either A Disa	\gree n gree	or		Disa	gree		S	trongly [Disagre	÷e
People should stay in their vessels on the river.	26	19	37	27	19	15	16	13	26	12	12	15	23	23	23	24	8	10	13	22
Climbing on banks and sand point bars damages the river.	44	37	53	43	26	19	18	22	18	10	14	15	8	10	7	15	5	4	8	6
Climbing trees and rope swings damages trees.	42	29	45	41	26	23	30	27	18	12	12	15	8	10	7	12	5	6	7	5
Sandy white bottoms are a sign of an unhealthy spring.	15	10	14	15	10	8	12	13	47	38	47	41	22	16	21	23	5	7	7	7
The number of vessels should be limited on the river.	42	36	53	44	36	22	23	25	10	11	9	14	8	6	9	11	4	6	6	7
Vessels should only be allowed to park in designated spots on the river.	39	29	46	38	28	19	23	30	17	14	12	11	11	4	13	13	5	14	7	8
The river is too crowded with visitors.	51	38	48	47	24	22	24	28	14	12	20	16	8	4	6	9	3	3	2	1
Vegetation is a sign of a healthy spring.*	-	-	-	42	-	-	-	40	-	-	-	14	-	-	-	4	-	-	-	0

HILLSBOROUGH COUNTY (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agi	ree		N	either A Disa	Agree r gree	ior		Disa	gree		St	rongly	Disagr	ee
People should stay in their vessels on the river.	10	18	17	17	17	11	17	10	26	21	17	17	32	26	42	33	15	18	8	23
Climbing on banks and sand point bars damages the river.	22	40	25	35	25	16	42	25	29	24	17	19	17	13	17	10	7	3	0	10
Climbing trees and rope swings damages trees.	17	24	42	35	36	21	33	27	30	24	25	21	13	21	0	8	2	5	0	8
Sandy white bottoms are a sign of an unhealthy spring.	10	11	8	8	3	16	17	21	46	34	25	27	26	24	50	23	15	11	0	21
The number of vessels should be limited on the river.	28	37	42	42	46	37	42	25	9	8	0	13	13	8	17	19	4	5	0	2
Vessels should only be allowed to park in designated spots on the river.	17	29	25	27	32	24	42	31	12	11	8	21	32	24	17	13	7	8	8	8
The river is too crowded with visitors.	32	29	33	35	25	37	50	23	20	21	0	25	19	8	17	15	4	0	0	2
Vegetation is a sign of a healthy spring.*	-	-	-	42	-	-	-	33	-	-	-	17	-	-	-	6	-	-	-	2

PASCO COUNTY (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agi	ree		Ne	either A Disa		or		Disa	gree		St	rongly	Disagro	ee
People should stay in their vessels on the river.	10	20	28	14	16	11	17	18	30	19	17	16	31	22	33	35	13	19	6	18
Climbing on banks and sand point bars damages the river.	21	30	56	27	34	26	11	28	26	13	17	23	15	17	11	12	5	6	6	10
Climbing trees and rope swings damages trees.	28	30	39	33	22	20	22	27	24	22	17	21	23	9	17	12	5	9	6	7
Sandy white bottoms are a sign of an unhealthy spring.	4	9	11	10	16	6	17	14	43	44	28	46	25	17	39	24	13	15	6	5
The number of vessels should be limited on the river.	28	30	28	27	36	20	33	40	17	13	12	19	15	20	22	11	4	7	6	3
Vessels should only be allowed to park in designated spots on the river.	20	32	39	32	36	30	22	37	18	9	6	10	18	15	28	12	9	6	6	8
The river is too crowded with visitors.	27	32	44	34	24	26	29	34	33	13	6	17	14	15	22	12	3	6	0	3
Vegetation is a sign of a healthy spring.*	-	-	-	35	-	-	-	43	-	-	-	18	-	-	-	2	-	-	-	2

PINELLAS COUNTY (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agi	ree		Ne	either A Disa		or		Disa	gree		St	rongly	Disagre	96
People should stay in their vessels on the river.	10	15	19	19	17	19	10	11	28	19	22	28	33	25	39	34	11	15	10	9
Climbing on banks and sand point bars damages the river.	27	35	39	33	36	35	36	37	20	12	16	23	16	7	7	6	1	3	3	1
Climbing trees and rope swings damages trees.	29	25	39	37	32	28	19	31	22	25	13	21	14	12	23	7	3	3	7	4
Sandy white bottoms are a sign of an unhealthy spring.	7	6	10	14	8	6	19	14	43	54	42	54	36	20	19	15	7	6	10	4
The number of vessels should be limited on the river.	35	33	36	37	42	42	42	30	12	7	13	19	9	6	3	13	3	3	7	1
Vessels should only be allowed to park in designated spots on the river.	27	28	26	34	38	33	26	28	13	12	16	15	15	13	32	20	7	6	0	3
The river is too crowded with visitors.	27	33	32	38	32	30	32	29	29	19	32	20	8	7	0	13	4	1	3	0
Vegetation is a sign of a healthy spring.*	-	-	-	48	-	-	-	38	-	-	-	10	-	-	-	4	-	-	-	0

POLK COUNTY (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agi	ree		Ne	either A Disa		or		Disa	gree		St	rongly	Disagro	2 e
People should stay in their vessels on the river.	11	23	25	17	23	8	8	17	20	23	17	6	23	31	25	39	23	15	25	22
Climbing on banks and sand point bars damages the river.	31	31	25	44	20	15	17	28	23	31	50	11	23	15	8	11	3	8	0	6
Climbing trees and rope swings damages trees.	23	31	25	50	29	23	33	11	20	23	8	6	20	15	25	11	9	8	8	22
Sandy white bottoms are a sign of an unhealthy spring.	11	8	8	22	0	23	33	22	54	23	33	39	26	39	17	6	9	8	8	11
The number of vessels should be limited on the river.	23	62	25	33	46	31	8	28	11	0	33	28	17	8	17	6	3	0	17	6
Vessels should only be allowed to park in designated spots on the river.	20	46	25	28	31	15	8	33	20	8	33	22	20	15	17	11	9	15	17	6
The river is too crowded with visitors.	20	46	33	50	29	31	25	17	37	23	33	22	14	0	0	6	0	0	8	6
Vegetation is a sign of a healthy spring.*	-	-	-	44	-	-	-	39	-	-	-	17	-	-	-	0	-	-	-	0

OTHER (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e		Agi	ree		Ne	either A Disa		or		Disa	gree		St	rongly	Disagro	96
People should stay in their vessels on the river.	10	24	9	8	10	43	15	17	20	19	35	33	40	10	29	27	20	5	12	15
Climbing on banks and sand point bars damages the river.	10	52	27	23	20	29	38	37	40	19	29	25	20	0	5	12	10	0	2	4
Climbing trees and rope swings damages trees.	20	67	27	27	10	19	32	33	20	14	21	21	40	0	17	15	10	0	3	4
Sandy white bottoms are a sign of an unhealthy spring.	0	24	9	2	10	19	14	23	60	43	42	37	20	14	21	25	10	0	14	14
The number of vessels should be limited on the river.	50	57	26	35	40	29	46	23	10	14	11	15	0	0	11	17	0	0	8	10
Vessels should only be allowed to park in designated spots on the river.	10	38	20	27	20	43	35	39	30	14	27	12	30	5	17	12	10	0	2	12
The river is too crowded with visitors.	30	52	23	27	30	33	42	37	30	10	24	23	10	5	11	12	0	0	0	2
Vegetation is a sign of a healthy spring.*	-	-	-	35	-	-	-	39	-	-	-	19	-	-	-	4	-	-	-	4

I DON'T LIVE IN FL (2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Strong	ly Agre	e	I	Ag	ree		N	either A Disa		or	I	Disa	gree		St	rongly	Disagro	ee
People should stay in their vessels on the river.	35	33	19	18	13	50	14	14	17	17	29	4	30	0	38	36	4	0	0	29
Climbing on banks and sand point bars damages the river.	48	67	24	25	22	33	29	14	17	0	29	21	13	0	14	32	0	0	5	7
Climbing trees and rope swings damages trees.	48	33	24	29	22	50	24	29	17	17	19	18	9	0	29	25	4	0	5	0
Sandy white bottoms are a sign of an unhealthy spring.	4	17	10	4	4	17	10	4	57	50	38	46	30	17	43	36	4	0	0	11
The number of vessels should be limited on the river.	35	50	14	18	35	0	33	29	17	50	33	29	13	0	19	18	0	0	0	7
Vessels should only be allowed to park in designated spots on the river.	44	33	29	21	35	50	19	39	9	17	29	18	9	0	24	11	4	0	0	11
The river is too crowded with visitors.	22	33	14	18	13	33	14	7	48	17	52	57	17	17	14	18	0	0	5	0
Vegetation is a sign of a healthy spring.*	-	-	-	25	-	-	-	54	-	-	-	21	-	-	-	0	-	-	-	0

Based on what you know or have heard, what challenges does the Weeki Wachee River face?

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
No challenges at the moment	10%	5%	4%	5%
Too many kayakers	32%	33%	32%	40%
Trampled vegetation	37%	44%	48%	48%
Too many people recreating on the river at one time	53%	51%	63%	59%
Worn down or eroded shorelines	39%	41%	51%	48%
Climbing and rope swinging from trees	33%	37%	39%	44%
Murky water	20%	16%	17%	16%
Too many vendors on the river	19%	23%	22%	22%
Too many motorized vehicles (e.g. boats, jet skis, etc.)	-	-	63%	67%
Other*	18%	22%	12%	11%

* Responses for "Other" are included in Appendix V.

Note: what follows is a breakdown by county showing the percentage of respondents identifying challenges the river faces.

(2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Cit	rus			Hern	ando		H	Hillsbo	orougl	ו		Pa	SCO			Pine	ellas			P	olk	
No challenges at the moment	8	7	4	3	7	4	6	5	13	8	0	8	18	2	6	5	12	12	7	4	3	0	17	0
Too many kayakers	41	47	42	33	55	37	46	50	33	24	42	35	31	33	50	31	31	30	16	34	29	46	47	56
Trampled vegetation	63	53	65	47	52	43	53	53	36	34	42	44	37	48	44	42	44	41	29	52	49	39	33	44
Too many people	57	57	69	50	66	52	69	64	61	50	83	56	55	44	61	58	64	54	55	58	49	77	58	67
Worn down or eroded shorelines	39	60	65	61	59	40	60	50	35	29	58	40	40	50	50	41	46	38	39	56	37	39	33	50
Climbing and rope swinging from trees	43	43	62	44	53	41	44	50	32	29	50	44	33	43	44	39	38	29	36	40	34	54	25	50
Murky water	22	20	8	17	25	12	23	18	23	11	25	19	20	19	17	13	26	16	16	16	14	8	8	17
Too many vendors on the river	20	17	19	28	36	11	23	25	20	18	17	21	18	24	17	22	20	16	29	18	20	31	8	33
Too many motorized vehicles	-	-	69	72	-	-	49	63	-	-	58	65	-	-	56	67	-	-	71	83	-	-	33	39
Other	12	20	15	11	12	15	12	12	20	37	8	10	28	19	11	10	26	33	10	8	20	23	8	28

Note: The top three challenges identified in each county are represented in red. Additionally, audiences in the "Other" or "I don't live in FL" were excluded from this breakdown as they are not a primary target of the campaign.

How likely are you to take the following actions knowing it would protect the Weeki Wachee River?

Responses for each category are listed left to right as follows: 2021 Pre / 2021 Post / 2022 Annual / 2023 Annual.

(2021 Pre/ 2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Very	Likely		S	omewh	at Like	ly	1	Not at a	III Likely	/
Stay in the vessel when possible.	63	61	67	60	25	25	16	24	12	14	17	17
If you have to leave the vessel, tie off in shallow waters.	75	81	78	76	20	13	18	18	5	6	4	7
Avoid docking on riverbanks.	67	73	75	63	24	17	16	25	8	10	9	12
Don't trample vegetation or kick up silt.	88	88	88	86	10	10	11	11	2	3	1	3
Avoid climbing on banks and walking on sand point bars.	65	65	74	63	25	24	17	25	10	11	9	12
Don't climb trees or use rope swings.	80	79	80	81	11	10	12	8	9	11	8	11
Don't throw out litter or leave anything behind.	98	97	98	99	0	<1	1	<1	2	2	1	1
Follow the new Springs Protection Zone rules.*	-	-	-	66	-	-	-	24	-	-	-	10

2023 Weeki Wachee River Annual Survey: Report

Are you a member of or follow any of the following social media groups/pages? Select all that apply.

	2021 Pre-Survey	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
Friends of Weeki Wachee Preserve	10%	14%	24%	23%
Weeki Wachee River Rescue Team	6%	8%	9%	8%
Weeki Wachee River Rangers	6%	9%	7%	7%
Weeki Crime Watch	2%	3%	6%	6%
Friends of Weeki Wachee State Park	8%	12%	14%	22%
Nature Coast Conservation	4%	6%	9%	6%
Sierra Club Adventure Coast	1%	3%	8%	4%
I do not belong to/follow any of these pages.	71%	62%	63%	64%

Note: Data presented in this report removed respondents who reported being part of/following the following groups listed above: Friends of Weeki Wachee Preserve, Weeki Wachee River Rescue Team and Weeki Wachee River Rangers. They are included here to show the small percentage of the whole number of respondents they accounted for in the survey. Similar to previous surveys, the majority (64%) of respondents were not members/followers of these groups.

2023 Weeki Wachee River Annual Survey: Report

In the past six months, where did you see or hear messages about protecting the Weeki Wachee River? Select all that apply.

	2021 Post-Survey	2022 Annual Survey	2023 Annual Survey
I have not seen or heard messages about protecting the Weeki Wachee River.	12%	15%	9%
Radio	3%	1%	1%
Internet	22%	38%	38%
Social media	63%	64%	74%
Billboard	1%	1%	1%
Television	8%	6%	10%
Newspaper	11%	10%	3%
Water Management District website	N/A	17%	15%
Restaurant/Bar	2%	2%	3%
Kayak shop	5%	4%	5%
Vacation rental or hotel	1%	1%	3%
Newsletter	2%	4%	3%
Don't know	4%	5%	4%

Responses for each category and	e listed left to right as follows: 2021 Post / 2022 Annual	/ 2023 Annual.

(2021 Post/ 2022 Annual/ 2023 Annual) Recorded as %		Citrus	5	He	ernan	do	Hill	sboro	ugh		Pasco	D	F	Pinella	S		Polk	
I have not seen or heard messages	23	12	11	4	6	7	13	17	8	7	11	8	19	10	8	15	25	6
Radio	10	4	0	3	1	1	3	0	0	2	0	1	1	3	8	8	0	0
Internet	10	50	33	16	41	36	24	25	38	20	22	37	30	48	42	31	8	39
Social media	67	54	64	59	71	77	63	67	75	74	61	73	58	65	67	77	50	83
Billboard	3	0	6	1	1	1	0	0	0	0	6	0	0	0	0	8	0	0
Television	13	0	11	10	12	12	5	0	8	9	11	9	7	10	12	15	8	11
Newspaper	20	19	17	10	17	13	18	17	8	9	0	6	9	10	18	15	0	11
District website	-	35	22	-	16	17	-	25	23	-	17	12	-	10	12	-	8	11
Restaurant/bar	3	0	3	1	3	5	3	0	2	2	0	2	0	0	2	15	8	0
Kayak shop	3	12	6	4	0	4	13	0	8	2	6	3	4	10	11	8	0	0
Vacation rental or hotel	3	0	0	0	0	3	0	0	8	2	0	0	0	3	5	8	0	6
Newsletter	3	4	3	3	7	4	0	8	0	4	6	2	1	0	2	0	0	6
Don't know	3	4	3	3	3	5	5	8	4	6	6	1	3	0	3	0	25	0

Have you seen or heard information about the springs protection zone for the Weeki Wachee River?

	2023 Annual Survey
Yes	69%
No	32%

Based on what you know or have heard, what activities would be restricted in the springs protection zone along the Weeki Wachee River? Select all that apply.

	2023 Annual Survey
You must stay in your vessel at all times.	47%
No anchoring, mooring, grounding or beaching of vessels.	90%
No swimming or snorkeling.	25%
Rafts and tubes will not be allowed.	13%
Kayak rentals will not be allowed.	3%
I don't know what the rules will be.	11%
Other	3%

* This question was only answered by respondents who indicated a "yes" response in the previous question.

Appendix I: 2023 Weeki Wachee River Annual Survey

1. When was the last time you visited the Weeki Wachee River?

- a. Within the last six months
- b. 6 months to one year ago
- c. More than one year to five years ago
- d. More than five years ago [TERMINATE]
- e. Don't know [TERMINATE]
- f. Never visited [TERMINATE]

2. In which Florida county to do you live?

- a. Hillsborough
- b. Pasco
- c. Hernando
- d. Pinellas
- e. Citrus
- f. Polk
- g. I don't live in FL
- h. Other [TEXT BOX]

3. Which of the following resources do you use when planning a trip to the Weeki Wachee River? Select all that apply.

- a. YouTube videos
- b. Social media pages (Facebook, Twitter)
- c. Search engines (Google, Bing)
- d. Travel Websites
- e. WeekiWachee.com
- f. Visitors Bureau
- g. Word of Mouth
- h. I'm a local resident
- i. Visited previously
- j. Other [TEXT BOX]

4. Please select up to three recreation activities you engage in while on the Weeki Wachee River.

- a. Boat (motorized vehicle)
- b. Kayak or Canoe
- c. Paddleboard
- d. Fishing
- e. Tubing [SKIP TO Q6]
- f. Swim or snorkel [SKIP TO Q6]
- g. Rope Swing [SKIP TO Q6]
- h. Observe wildlife (manatees, birds etc.) [SKIP TO Q6]
- i. Camp [SKIP TO Q6]
- j. Hike [SKIP TO Q6]
- k. Picnic [SKIP TO Q6]
- I. Other [TEXT BOX] [SKIP TO Q6]
- 5. If you exit your vessel, where do you leave it while on the river?

- a. I don't leave my vessel while I'm on the river.
- b. Park on riverbanks or sand point bars
- c. Tie off in shallow waters
- d. Let it float freely
- e. Other [TEXT BOX]

6. How much do you agree or disagree with the following statements? (Strongly Agree, Agree, Neither agree nor disagree, Disagree, Strongly Disagree)

- a. People should stay in their vessels on the river.
- b. Climbing on banks and sand point bars damages the river.
- c. Climbing trees and rope swings damages trees.
- d. Sandy white bottoms are a sign of an unhealthy spring.
- e. The number of vessels should be limited on the river.
- f. Vessels should only be allowed to park in designated spots on the river.
- g. The river is too crowded with visitors.
- h. Vegetation is a sign of a healthy spring.
- 7. Based on what you know or have heard, what challenges does the Weeki Wachee River face? Select all that apply.
 - a. No challenges at the moment
 - b. Too many kayakers
 - c. Trampled vegetation
 - d. Too many people recreating on the river at one time
 - e. Worn down or eroded shorelines
 - f. Climbing and rope swinging from trees
 - g. Murky water
 - h. Too many vendors on the river
 - i. Too many motorized vehicles (e.g. boats, jet skis, etc.)
 - j. Other [TEXT BOX]
- 8. How likely are you to take the following actions knowing it would protect the Weeki Wachee River? (Very Likely, Somewhat Likely or Not at all likely).
 - a. Stay in the vessel when possible.
 - b. If you have to leave the vessel, tie off in shallow waters.
 - c. Avoid docking on riverbanks.
 - d. Don't trample vegetation or kick up silt.
 - e. Avoid climbing on banks and walking on sand point bars.
 - f. Don't climb trees or use rope swings.
 - g. Don't throw out litter or leave anything behind.
 - h. Follow the new Springs Protection Zone rules.

9. Are you a member of any of the following social media groups? Select all that apply. [RANDOMIZE]

- a. Friends of Weeki Wachee Preserve
- b. Weeki Wachee River Rescue Team
- c. Weeki Wachee River Rangers
- d. Weeki Crime Watch
- e. Friends of Weeki Wachee State Park
- f. Nature Coast Conservation
- g. Sierra Club Adventure Coast
- h. I do not belong to/follow any of these pages.

10. In the past six months, where did you see or hear messages about protecting the Weeki Wachee River? Select all that apply.

- a. I have not seen or heard messages about protecting the Weeki Wachee River.
- b. Radio
- c. Internet
- d. Social media
- e. Billboard
- f. Television
- g. Newspaper
- h. Water Management District website at WaterMatters.org
- i. Restaurant/bar
- j. Kayak shop
- k. Vacation rental or hotel
- I. Newsletter
- m. Don't know
- 11. Have you seen or heard information about the springs protection zone for the Weeki Wachee River?
 - a. Yes
 - b. No [TERMINATE]
- 12. Based on what you know or have heard, what activities would be restricted in the springs protection zone along the Weeki Wachee River? Select all that apply.
 - a. You must stay in your vessel at all times.
 - b. No anchoring, mooring, grounding or beaching of vessels.
 - c. No swimming or snorkeling.
 - d. Rafts and tubes will not be allowed.
 - e. Kayak rentals will not be allowed.
 - f. I don't know what the rules will be.
 - g. Other [TEXT BOX]

Appendix II: "Other" text responses Q3

- Whatever our friends are up to that live there
- Weekiwacheeboatrentals.org
- Vacation home in WW
- the Tides app
- State park website
- I grew up here. I know the area very well. My Aunt was a Mermaid there.
- Family lives in area and I'm a native floridan
- Facebook group I Love Weeki Wachee
- Brother has a place there

Appendix III: "Other" text responses Q4

- Waverunner
- Visiting family
- Sitting at a restaurant
- Scuba
- Pick up trash while kayaking
- Eat
- Briefly get in water to cool off.
- All

Appendix IV: "Other" text responses Q5

- We swim at the campground, but have noticed some sandy areas where you possibly could get in the water
- We hold it now. Used to tie off in shallows
- Tie off or anchor
- Swim next to it or hold it
- Sand spear
- Pull my kayak up on the sand so I can jump in to cool off. I'm a responsible person and would never leave anything behind.
- Pole Anchor to the side
- Pole anchor
- Park family boat at family's home on river
- moored to my dock
- Leashed to me floating
- Just pull to side it enjoy sandwich. Stay in kneed deep water
- If I get off my paddleboard it's always in shallow water so I can stand right beside it. I then don't have a need to tie it off or park it on the banks.
- I tether it to me and allow it to float
- I stay on the river or have friends on the river that I tie off to
- I stay on the river at a house

- I live on the river
- Hold it
- Float with an anchor
- Everyone needs to cool off and should be allowed to do so without expansive do not exit vessel signs.
- Bank, Sand bar or float freely
- At my dock

Appendix V: "Other" text responses Q7

- Almost had my legs run over sitting with my feet in the water. My nephew rented a house there for a week.
 Too many motorized boats with the swimmers and kayakers.
- Biggest issue is contracted kayak vendor at Weeki Wachee State Park. Greedy politically connected fatcat. State Park should manage and keep the profits. Reinvest in protecting river. 50 a day at 4x current price
- Boaters harassing kayakers.
- Consuming alcohol and drugs on the river
- Everything in moderation is ok-especially with the last question but there was no where to add a comment. I also think it's unrealistic to tell people they cannot exit their vessel. I also never see people trampling through the banks & the amount of young people climbing the trees to jump off is minimal & not seen every time I paddle. There has to be a happy medium between preserving the river but also letting people who visit have fun. Too many rules is never fun, this is exactly why I will never return to King's Landing-way too many rules!
- Homes on the river need to stop using pesticides for a lawn or anything and the drain fields if the have one should become city sewer to stop pollutants from entering the river.
- I feel like motorized vessels should only be allowed after blue run bridge
- I was only there once, and I don't feel qualified to answer. We only took the tour boat at WW.
- In general, too many people on the river. I feel that motorized boats should be banned. Most of the people
 on the water don't seem to care about protecting the spring. They are just concerned about themselves and
 having a good time. I have also seen people harass the wildlife (like manatees). I firmly believe that more
 police/enforcers need to patrol and monitor the water. As someone who enjoys paddling and swimming at

hospital hole, it saddens me to see how disrespectful people are and how they don't seem concerned about the preservation of the spring.

- Little or no enforcement of laws
- Lots of trash, manatees being chased, motorized vehicles going too fast, people fishing within state park boundaries
- Motor boats are the main problem: destruction of grasses and digging up river bottom. Danger to manatees
 and other vessels, pollution, no limit to the number of people aboard jon boats. Those boats carry grills and
 party on river banks. Should have been addressed in the study.
- Motor boats should not. Be allowed in the park period
- Motorized vehicle are by far the biggest and worst challenge. Limit the springs to non-motorized only!
- Motorized vessels should be banned. Especially jet skis!
- Occasionally crowded
- Only at certain times in the summer is it too crowded
- People are disrespectful. Residents and visitors. Both have no regard for anyone but themselves..
- People swimming, possibly to pee in the river
- People that don't live here trying to change it anymore we already have rules in places that are enforced by
 FWC and the sheriff. I do think some things are benificial like no anchoring but anchor poles were brought
 up in a meeting with the county commissioners and they didn't even bat an eye or listen to any of the facts
 about that topic. I think Kayak rentals should be limited more and prices go up if they are worried that the
 weeki Wachee park will lose money in the long run for the county but we would never raise the wages on
 those who visit here just inconvenience the ones that live here.
- People trying to control the river
- People who blare music like they are at a rave, or out for a party on the water.
- POLLUTION, human waste
- Residents
- Should not allow alcohol
- State Park erosion

- The animals have nowhere to go or get scared away. There's not enough room for the manatees to swim on the shallow parts of the river then huge boats come by and the animals can't swim. There's no room for them.
- The last time I kayaked on the WW, the Kayak outpost only allowed so many people to make a
 reservation... even if you own your own kayak.... But now I hear that we're not even allowed to pull over to
 swim and get refreshed. I HAVE to cool down while on a kayak trip... without being allowed to swim, I will go
 somewhere othet than WW....
- To many larger boats that are too big for the river
- To much pumping
- Too fast motor boats and injury to manatee
- Too many assholes on rented kayaks
- Too many kayak rental places. It isn't fair for experienced locals that so many inexperienced tourists come in, have no idea how to operate or maritime rules clog up the water ways and cause traffic jams and disturb wildlife. Less rentals on the river per day.
- Too many people who do not know how to navigate a kayak/boat
- Too many people. People are polution
- Too many rental kayakers and inexperienced boaters
- Too much government control
- Too much litter; cans, plastic and cigarettes
- Unsafe users both speeding boats and unskilled paddlers
- Waterways are to be enjoyed by all.
- Way too many large motorized vessels
- WW has gotten very popular

Appendix VI: Agreement statements all counties

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	S	Strongl	y Agre	e		Ag	ree		Ne		\gree r Igree	nor		Disa	gree		Sti	rongly	Disagı	ee
Citrus	16	30	23	25	26	17	27	22	20	17	15	17	29	20	19	28	10	10	15	8
Hernando	26	19	37	27	19	15	16	13	26	12	12	15	23	23	23	24	8	10	13	22
Hillsborough	10	18	17	17	17	11	17	10	26	21	17	17	32	26	42	33	15	18	8	23
Pasco	10	20	28	14	16	11	17	18	30	19	17	16	31	22	33	35	13	19	6	18
Pinellas	10	15	19	19	17	19	10	11	28	19	23	28	33	25	39	34	11	15	10	9
Polk	11	23	25	17	23	8	8	17	20	23	17	6	23	31	25	39	23	15	25	22

People should stay in their vessels on the river.

Climbing on banks and sand point bars damages the river.

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	St	trongl	y Agre	ee		Ag	ree		Nei	ither A Disa	\gree gree	nor		Disa	agree		Stro	ngly l	Disagı	ree
Citrus	39	33	54	42	33	27	19	28	12	20	8	14	12	7	15	17	4	7	4	0
Hernando	44	37	53	43	26	19	18	22	18	10	14	15	8	10	7	15	5	4	8	6
Hillsborough	22	40	25	35	25	16	42	25	29	24	17	19	17	13	17	10	7	3	0	10
Pasco	21	30	56	27	34	26	11	28	26	13	17	23	15	17	11	12	5	6	6	10
Pinellas	27	35	39	33	36	35	36	37	20	12	16	23	16	7	7	6	1	3	3	1
Polk	31	31	25	44	20	15	17	28	23	31	50	11	23	15	8	11	3	8	0	6

Climbing trees and rope swings damages trees.

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	S	Strongly Agree				Ag	ree		Nei	ther A Disa	-	nor		Disa	agree		Stro	ngly l	Disagı	ree
Citrus	35	30	54	33	28	20	23	42	12	20	12	11	16	13	8	11	10	10	4	3
Hernando	42	29	45	41	26	23	30	27	18	12	12	15	8	10	7	12	5	6	7	5
Hillsborough	17	24	42	35	36	21	33	27	30	24	25	21	13	21	50	8	2	5	0	8
Pasco	28	30	39	33	22	20	22	27	24	22	17	21	23	9	17	12	5	9	6	7
Pinellas	29	25	39	37	32	28	19	31	22	25	13	21	14	12	23	7	3	3	7	4
Polk	23	31	25	50	29	23	33	11	20	23	8	6	20	15	25	11	9	8	8	22

Sandy white bottoms are a sign of an unhealthy spring.

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	Strongly Agree			e		Ag	ree		Nei	ither A Disa	\gree gree	nor		Disa	agree		Stro	ngly [Disagr	ee
Citrus	2	3	8	11	16	10	19	8	39	33	50	39	31	30	19	25	12	17	4	17
Hernando	15	10	14	15	10	8	12	13	47	38	47	41	22	16	21	23	5	7	7	7
Hillsborough	10	11	8	8	3	16	17	21	46	34	25	27	26	24	50	23	15	11	0	21
Pasco	4	9	11	10	16	6	17	14	43	44	28	46	25	17	39	24	13	15	6	5
Pinellas	7	6	10	14	8	6	19	14	43	54	42	54	36	20	19	15	7	6	10	4
Polk	11	8	8	22	0	23	33	22	54	23	33	39	26	39	17	6	9	8	8	11

The number of vessels should be limited on the river.

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	Si	trongl	y Agre	e		Ag	ree		Nei		\gree gree	nor		Disa	agree		Stro	ongly I	Disagr	ee
Citrus	24	37	35	36	39	37	42	31	20	7	8	14	14	10	12	17	4	3	4	3
Hernando	42	36	53	44	36	22	23	25	10	11	9	14	8	6	9	11	4	6	6	7
Hillsborough	28	37	42	42	46	37	42	25	9	8	0	13	13	8	17	19	4	5	0	2
Pasco	28	30	28	27	36	20	33	40	17	13	11	19	15	20	22	11	4	7	6	3
Pinellas	35	33	36	37	42	42	42	30	12	7	13	19	9	6	3	13	3	3	7	1
Polk	23	62	25	33	46	31	8	28	11	0	33	28	17	8	17	6	3	0	17	6

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	St	trongly	y Agre	e		Ag	ree		Nei		Agree Igree	nor		Disa	igree		Stro	ongly	Disag	ree
Citrus	26	33	39	42	39	23	35	36	8	7	4	8	24	17	12	8	4	13	12	6
Hernando	39	29	46	38	28	19	23	30	17	14	12	11	11	4	13	13	5	14	7	8
Hillsborough	17	29	25	27	32	24	42	31	12	11	8	21	32	24	17	13	7	8	8	8
Pasco	20	32	39	32	36	30	22	37	18	9	6	10	18	15	28	12	9	6	6	8
Pinellas	27	28	26	34	38	33	26	28	13	12	16	15	15	13	32	20	7	6	0	3
Polk	20	46	25	28	31	15	8	33	20	8	33	22	20	15	17	11	9	15	17	6

Vessels should only be allowed to park in designated spots on the river.

The river is too crowded with visitors.

(2021 Pre/Post/ 2022 Annual/ 2023 Annual) Recorded as %	S	Strongly Agree				Ag	ree		Nei		Agree Igree	nor		Disa	igree		Str	ongly	Disag	Iree
Citrus	24	33	39	39	29	13	31	31	33	30	23	25	10	10	8	6	4	7	0	0
Hernando	51	38	48	47	24	22	24	28	14	12	20	16	8	4	6	9	3	3	2	1
Hillsborough	32	29	33	35	25	37	50	23	20	21	0	25	19	8	17	15	4	0	0	2
Pasco	27	32	44	34	24	26	28	34	33	13	6	17	14	15	22	12	3	6	0	3
Pinellas	27	33	32	38	32	30	32	29	29	19	32	20	8	7	0	13	4	1	3	0
Polk	20	46	33	50	29	31	25	17	37	23	33	22	14	0	0	6	0	0	8	6

Vegetation is a sign of a healthy spring.*

2023 Annual	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Citrus	36%	44%	14%	6%	0%
Hernando	42%	40%	14%	4%	<1%
Hillsborough	42%	33%	17%	6%	2%
Pasco	35%	43%	18%	2%	2%
Pinellas	48%	38%	10%	4%	0%
Polk	44%	39%	17%	0%	0%