

FRIENDS OF ST. SEBASTIAN RIVER  
BOARD OF DIRECTORS' MEETING

AGENDA

TUESDAY, OCTOBER 11, 2022 – 4pm, Ryall house/South Prong Preserve

CALL TO ORDER/ATTENDANCE

CALL FOR ADDITIONS/DELETIONS TO THE AGENDA

MINUTES FROM THE PREVIOUS MEETING(S) – pg. 2

TREASURER'S REPORT – pp. 3-9

PRESIDENT'S REPORT – Rufus Standefer, cinematographer, Graves Bros. annexation shorts & long-form videos, VBFF 2023

UNFINISHED BUSINESS

Cox to contact attorney Glenn re. FL statutes on herbicide permits, update?

NEW BUSINESS

- 1) Ryall property, winter season 2022-23 schedule of events and activities workshop, see Volunteer Committee Report, pp. 20-21
- 2) Pelican Island Audubon support for Transforming Landscapes for a Sustainable Future conference, pp. 10-12

COMMITTEE REPORTS

Advocacy – Herrmann

SJRWMD permits – Sunshine Mine expansion, NW corner of Babcock Rd and C-54, #154686

ACOE permits – none

Blue-Green Algae Task Force Report, Stick Marsh & Blue Cypress Lake, pg. 13

City of Sebastian re. Graves Bros. annexation meeting, pg. 14

Brevard IRL Coalition initiatives, pp. 15-16

Brevard Env. Lands bond referendum, pg. 17

IR County Env. Lands bond referendum, [www.ircforever.com](http://www.ircforever.com), pp. 18-19

Education/Outreach – Bolton/Stephen

Chozen Retreat, Sebastian, River cleanup donation, next cleanup late October?

Ryall property/South Prong Preserve Open House, Saturday, November 12, 10am to 4pm, pg. 20

Financial – Greene

Governance – Herrmann

Information – Glover, website update – new “Our River” page, includes info on what a watershed is, article by George Keyes on historical river name-relocated, need to add information/definition on what a “slough” is

Membership – Herrmann – new members since Sep – none

Publicity – Penny Phillips – Facebook stats unavailable, Google website & search stats, pp. 21-25

Volunteer – vacant, pp. 26-27

Adjournment

ANNOUNCEMENTS

- 1) Next BOD meeting – Nov 8, 4pm, Ryall house
- 2) IRNA local election candidate meet-and-greet, Walking Tree Brewery, Oct. 19, 5-6:30pm
- 3) IR Lagoon Day, Nov. 5, 10am to 2pm, Front St. Park, Melbourne
- 4) ORCA Pollution Mapping report, Oct. 2022, pp. 28-34

**FRIENDS OF ST. SEBASTIAN RIVER  
BOARD OF DIRECTORS' MEETING  
TUESDAY, SEPTEMBER 13, 2022--4PM ONLINE, GOOGLE MEET**

CALL TO ORDER/ATTENDANCE--Pres. Glover called the meeting to order at 4:04 PM. In attendance were Greene(treasurer), Herrmann(vice-pres.), and directors Bolton, Bondy, Stephen, and Zingman, as well as advisory director Hinck. Peterson(secretary) joined by phone.

CALL FOR ADDITIONS/DELETIONS TO AGENDA--None

MINUTES FROM PREVIOUS MEETING(S)(AP, p.2)--Bolton made a motion, seconded by Stephen, that the Minutes from the July 12, 2022 BOD meeting be approved and accepted; all voted in favor.

TREASURER'S REPORT(AP, pp.3-10)--Greene reported that the two checks for \$500 each written to Schum award winners had been cashed; Herrmann made a motion, seconded by Bolton, that the report be accepted for audit; all voted in favor.

PRESIDENT'S REPORT--

Ryall house update-Glover will meet with Wendy Swindell on Sept. 14, 2022 of IRC Conservation Lands to learn more about the widening of Rte. 510 and wildlife/ pedestrian underpass.

Our monthly electric bill is under \$40 (good news); the OOMA phone is hooked up and working, but the internet connection is not strong enough for us to hold online meetings at the house.

FDOT CR510 workshop-Glover plans to speak with Maria Formosa about pending project on property across the street and the proposed design for the underpass.

UNFINISHED BUSINESS-Cox to contact attorney Glenn re Fl. statutes on herbicide permits, update?--None

NEW BUSINESS--RYALL PROPERTY, WINTER SEASON 2022-2023 schedule of events and activities workshop--Glover would like to schedule a workshop of Board members and volunteers ASAP at Ryall House; Wendy Swindell will also be invited.

COMMITTEE REPORTS

Advocacy-Herrmann-none

SJRWMD permits-Cypress Bay west Phase 111B-304 homes (Waterstone/Sotille Canal) #96251, Gardenia Street (Sebastian) drainage improvements #191141

ACOE permits-none

Response from FDEP, re our letter--lead in St. Sebastian River(AP, pp.11-16)

Blue-Green Algae Task Force Report, Aug 24-30 (AP, pp.17-18)

NRDC lawsuit re glyphosate (also TCPalm 23 Aug. article on glyphosate)(AP, pp.19- 24)

City of Sebastian re Grave Bros. annexation meeting Sept. 13, 6PM, press release (AP, p.25)--Bolton suggested that we take out an online subscription with TCPalm, at \$1 monthly for six months. No vote taken.

City of Vero Beach objections to Central IRL BMAP(AP,pp.26-33)

Education Outreach-Bolton/Stephen

"Plant a Refuge for Wildlife" booklets received-Glover explained that because our order was filled so late, our check for \$83.25 was returned as a gesture of good will.

Chozen Retreat, Sebastian, River cleanup donation came to \$260-next cleanup in late October.

Intl. Coastal Cleanup with KIRB and Coastal Connections, Sept. 17th--too late for coordination of new location, but will encourage members to participate in already organized locations; we need to coordinate our own cleanup on the River later in the season with American Rivers.

IR Lagoon Day, Front Street Park, Melbourne, Nov. 5, 2022--we will donate a "Plant a Refuge for Wildlife" booklet and FSSR keychain as door prizes.

Financial-Greene-Endowment Partners account (AP, p.34)--members expressed excitement about the plan; Glover will seek out more details.

Governance--Herrmann reported that Karen Greb will join us as an advisory director.

Information-Glover, website update-no update/in progress, [www.fssr.org/tours.htm](http://www.fssr.org/tours.htm)

Membership-Herrmann-new members since May: Jun & Mary-Catherine Chen; Jeff Howe; Rick Palacios(\$15 monthly contribution); Joyce & Christopher Powell; Amy & Tony Wood

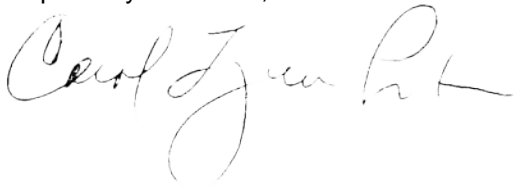
Publicity-Penny Phillips-Facebook stats unavailable, see Google search stats(AP, p.35)

Volunteer-vacant

Adjournment-Herrmann made a motion, seconded by Bolton, that the meeting be adjourned at 5:00 pm; all voted in favor.

ANNOUNCEMENTS-1) Next BOD meeting Oct. 11 at Ryall House 4pm; 2)City of Seb. P&Z mtg. re Graves Bros. Sept. 15

Respectfully submitted,



Carol Lynn Peterson, FSSR Secretary

Friends of St. Sebastian River  
**Profit & Loss**  
September 2022

	<u>Sep 22</u>
Ordinary Income/Expense	
Income	
43400 · Direct Public Support	
43450 · Individ, Business Contributions	15.00
Total 43400 · Direct Public Support	<u>15.00</u>
Total Income	<u>15.00</u>
Gross Profit	15.00
Expense	
62800 · Facilities and Equipment	
62890 · Rent, Parking, Utilities	39.53
Total 62800 · Facilities and Equipment	<u>39.53</u>
65000 · Operations	
65020 · Postage, Mailing Service	12.00
65050 · Telephone, Telecommunications	8.89
65060 · Merchant Service Fee-PayPal	0.79
Total 65000 · Operations	<u>21.68</u>
68300 · Travel and Meetings	
68310 · Conference, Convention, Meeting	2.99
Total 68300 · Travel and Meetings	<u>2.99</u>
Total Expense	<u>64.20</u>
Net Ordinary Income	<u>-49.20</u>
Net Income	<u><u>-49.20</u></u>

**Friends of St. Sebastian River**  
**Balance Sheet**  
 As of September 30, 2022

	Sep 30, 22
<b>ASSETS</b>	
<b>Current Assets</b>	
<b>Checking/Savings</b>	
10000 · Checking	
10020 · Without Donor Restrictions	6,370.55
10030 · With Donor Restirctions	
10033 · Archie Laird Memorial	585.00
10034 · Grants	422.54
<b>Total 10030 · With Donor Restirctions</b>	1,007.54
<b>Total 10000 · Checking</b>	7,378.09
10100 · Petty Cash	45.00
10200 · PayPal	2,236.19
<b>Total Checking/Savings</b>	9,659.28
<b>Other Current Assets</b>	
10300 · Gift Card	26.26
12100 · Inventory Asset	
12110 · Puppets	292.00
12120 · Clothing	137.05
12140 · Hats	116.64
12100 · Inventory Asset - Other	944.59
<b>Total 12100 · Inventory Asset</b>	1,490.28
<b>Total Other Current Assets</b>	1,516.54
<b>Total Current Assets</b>	11,175.82
<b>TOTAL ASSETS</b>	<b>11,175.82</b>
<b>LIABILITIES &amp; EQUITY</b>	
<b>Liabilities</b>	
<b>Current Liabilities</b>	
<b>Other Current Liabilities</b>	
25500 · Sales Tax Payable	29.50
<b>Total Other Current Liabilities</b>	29.50
<b>Total Current Liabilities</b>	29.50
<b>Total Liabilities</b>	29.50
<b>Equity</b>	
30000 · Opening Balance Equity	306.99
32000 · Unrestricted Net Assets	11,294.86
Net Income	-455.53
<b>Total Equity</b>	11,146.32
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>11,175.82</b>

**Friends of St. Sebastian River**  
**Reconciliation Detail**  
**10000 · Checking, Period Ending 09/30/2022**

Type	Date	Num	Name	Amount	Balance
<b>Beginning Balance</b>					7,491.97
<b>Cleared Transactions</b>					
<b>Checks and Payments - 6 items</b>					
Check	5/5/2022	1026	Peter Hinck	-16.12	-16.12
Check	9/2/2022	DC	Google	-3.00	-19.12
Check	9/8/2022	DC	FPL	-39.53	-58.65
Check	9/11/2022	DC	Ooma	-5.89	-64.54
Check	9/19/2022	DC	US Post Office	-12.00	-76.54
Check	9/23/2022	DC	Google	-2.99	-79.53
Total Checks and Payments				-79.53	-79.53
<b>Deposits and Credits - 1 item</b>					
Check	4/29/2022	1024	FL Fish & Wildlife Cons...	0.00	0.00
Total Deposits and Credits				0.00	0.00
Total Cleared Transactions				-79.53	-79.53
Cleared Balance				-79.53	7,412.44
<b>Uncleared Transactions</b>					
<b>Checks and Payments - 1 item</b>					
Check	4/6/2022	DC	Home Depot	-34.35	-34.35
Total Checks and Payments				-34.35	-34.35
Total Uncleared Transactions				-34.35	-34.35
Register Balance as of 09/30/2022				-113.88	7,378.09
<b>New Transactions</b>					
<b>Checks and Payments - 2 items</b>					
Check	10/2/2022	DC	Google	-3.00	-3.00
Check	10/11/2022	DC	Ooma	-5.89	-8.89
Total Checks and Payments				-8.89	-8.89
<b>Deposits and Credits - 2 items</b>					
Sales Receipt	10/4/2022	846	Charities Aid Foundatio...	83.28	83.28
Transfer	10/10/2022			2,000.00	2,083.28
Total Deposits and Credits				2,083.28	2,083.28
Total New Transactions				2,074.39	2,074.39
<b>Ending Balance</b>				<b>1,960.51</b>	<b>9,452.48</b>

# Initiate Business Checking<sup>SM</sup>

September 30, 2022 ■ Page 1 of 4



FRIENDS OF ST. SEBASTIAN RIVER, INC.  
SEBASTIAN RIVER INC  
PO BOX 284  
ROSELAND FL 32957-0284

## Questions?

**Available by phone 24 hours a day, 7 days a week:**

We accept all relay calls, including 711

1-800-CALL-WELLS (1-800-225-5935)

*En español:* 1-877-337-7454

**Online:** wells Fargo.com/biz

**Write:** Wells Fargo Bank, N.A. (287)

P.O. Box 6995

Portland, OR 97228-6995

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Visit wells Fargo.com/digitalbusinessresources to explore tours, articles, infographics, and other resources on the topics of money movement, account management and monitoring, security and fraud prevention, and more.

## Account options

*A check mark in the box indicates you have these convenient services with your account(s). Go to wells Fargo.com/biz or call the number above if you have questions or if you would like to add new services.*

Business Online Banking	<input checked="" type="checkbox"/>
Online Statements	<input checked="" type="checkbox"/>
Business Bill Pay	<input type="checkbox"/>
Business Spending Report	<input checked="" type="checkbox"/>
Overdraft Protection	<input type="checkbox"/>

## Statement period activity summary

Beginning balance on 9/1	\$7,491.97
Deposits/Credits	0.00
Withdrawals/Debits	- 79.53
Ending balance on 9/30	<b>\$7,412.44</b>

Account number: [REDACTED]

FRIENDS OF ST. SEBASTIAN RIVER, INC.  
SEBASTIAN RIVER INC

*Florida account terms and conditions apply*

For Direct Deposit use

Routing Number (RTN): 063107513

For Wire Transfers use

Routing Number (RTN): 121000248

## Overdraft Protection

This account is not currently covered by Overdraft Protection. If you would like more information regarding Overdraft Protection and eligibility requirements please call the number listed on your statement or visit your Wells Fargo branch.



Transaction history

<i>Date</i>	<i>Check Number</i>	<i>Description</i>	<i>Deposits/ Credits</i>	<i>Withdrawals/ Debits</i>	<i>Ending daily balance</i>
9/2		Recurring Payment authorized on 09/01 Google Gsuite_Fss 650-2530000 CA S462244372040660 Card [REDACTED]		3.00	7,488.97
9/8		Fpl Direct Debit Elec Pymt 09/22 1232872117 Ppda Friends of St. Sebast		39.53	7,449.44
9/12		Recurring Payment authorized on 09/10 Ooma,Inc 888-711-6662 CA S382253629287097 Card [REDACTED]		5.89	7,443.55
9/16	1026	Check		16.12	7,427.43
9/19		Purchase authorized on 09/19 USPS PO 11847504 1290 Mai Sebastian FL P302262580254039 Card [REDACTED]		12.00	7,415.43
9/23		Purchase authorized on 09/22 Google *Google Pla G.CO/Helppay# CA S302265633622853 Card [REDACTED]		2.99	7,412.44
Ending balance on 9/30					7,412.44
Totals			\$0.00	\$79.53	

*The Ending Daily Balance does not reflect any pending withdrawals or holds on deposited funds that may have been outstanding on your account when your transactions posted. If you had insufficient available funds when a transaction posted, fees may have been assessed.*

Summary of checks written (checks listed are also displayed in the preceding Transaction history)

<i>Number</i>	<i>Date</i>	<i>Amount</i>
1026	9/16	16.12

Monthly service fee summary

For a complete list of fees and detailed account information, see the disclosures applicable to your account or talk to a banker. Go to [wellsfargo.com/feefaq](https://wellsfargo.com/feefaq) for a link to these documents, and answers to common monthly service fee questions.

Fee period 09/01/2022 - 09/30/2022	Standard monthly service fee \$10.00	You paid \$0.00
------------------------------------	--------------------------------------	-----------------

The bank has waived the fee for this fee period.

How to avoid the monthly service fee	Minimum required	This fee period
Have any ONE of the following account requirements		
• Average ledger balance	\$1,000.00	\$7,441.00 <input type="checkbox"/>
• Minimum daily balance	\$500.00	\$7,412.44 <input type="checkbox"/>

C1/C1

Account transaction fees summary

<i>Service charge description</i>	<i>Units used</i>	<i>Units included</i>	<i>Excess units</i>	<i>Service charge per excess units (\$)</i>	<i>Total service charge (\$)</i>
Cash Deposited (\$)	0	5,000	0	0.0030	0.00
Transactions	2	100	0	0.50	0.00
Total service charges					\$0.00



Merchant Account ID: [REDACTED]

PayPal ID: info@fssr.org

9/1/22 - 9/30/22

### Statement for September 2022

Friends of St. Sebastian River, Inc.  
PO Box 284  
32957 Roseland

### Balance Summary (9/1/22 - 9/30/22)

	Available beginning	Available ending	Withheld beginning	Withheld ending
USD	2,221.98	2,236.19	0.00	0.00





Merchant Account ID: [REDACTED]

PayPal ID: info@fssr.org

9/1/22 - 9/30/22

### Activity Summary (9/1/22 - 9/30/22)

	USD
<b>Beginning Available Balance</b>	<b>2,221.98</b>
Payments received	15.00
Payments sent	0.00
Withdrawals and Debits	0.00
Deposits and Credits	0.00
Fees	-0.79
<b>Ending Available Balance</b>	<b>2,236.19</b>



P.O. Box 1833, Vero Beach, FL 32961-1833  
772-567-3520 - piaudubon@bellsouth.net - www.PelicanIslandAudubon.org

September 20, 2022

Friends of St. Sebastian River  
P.O. Box 284  
Roseland, FL 32957-0284

Dear Friends of St. Sebastian River: *Tim*

Thank you so much for being a sponsor and making a very important generous contribution to our prior *Transforming Landscapes for a Sustainable Future* conference(s). We could not have put on that conference without supporters like you. As a result of these conferences, several communities and a number of individuals have taken action and started planting their yards with native plants.

In January 2022, we planted an Education and Demonstration Native Plant Garden at the County Commission entrance to show the public that a native plant garden can be beautiful and functional. Many folks come to the county complex to visit the county health department, pay their taxes, and attend commission meetings. Now they can see how to play a role in helping solve the crises facing our climate and lagoon--plant native trees and plants! A video showing the creation of the garden and signs are on YouTube: <https://www.youtube.com/watch?v=gH1cZwNqQ20&t=6s>. PIAS also has distributed over 12,300 native plants and trees!

We want to maintain this momentum by getting more of our community educated by holding our fourth conference with the same name, "Transforming Landscapes for a Sustainable Future." The emphasis will be on how to transform our landscapes by reducing our precious water usage, and to save our fragile lagoon and ponds. by having more great speakers on January 21, 2023. We hope you will again be a **generous sponsor** in this ongoing important endeavor. Please let me know soon as we are amid planning and developing advertisements with our sponsors' names, giving you credit for your essential contribution. I am attaching the schedule and a short bio of the speakers.

The conference will be held at the Emerson Center/Unitarian Universalist Fellowship, 1590 27th Ave, Vero Beach. Admission is \$25 advanced registration for both ZOOM and those attending. Attendees will receive a box lunch. We will have native plant vendors. The price increases to \$35 after January 17th and at the door. To get more of the community interested and involved, we will give one free ticket to HOA board presidents.

We want a wide representation of diverse audiences for this conference: local governments, businesses, homeowner's associations, developers, landscape architects, consulting engineers, nurseries, and our concerned residents. Our conference is an opportunity for everyone to learn how to landscape in a way that is sustainable, cost-effective, and enhances quality of life for all. The rate of development in the Indian River Lagoon region is climbing. We must continue the momentum NOW for a healthier environment. Be part of the solution!

Please join this transforming initiative and be a sponsor. Invite your family and friends! Complimentary tickets for the conference: Sponsorships for \$1,500.00 or more = 12 complimentary tickets; \$1,000 = 8 Tickets; \$500.00 = 4 Tickets; \$250 = 2 Tickets. Sponsors will be listed on the program, flyers, and in our advertising.

To make your donation go to [PelicanIslandAudubon.org](http://PelicanIslandAudubon.org) and click on Landscape Conference. You can use your credit card or call our office at 772-567-3520 (9 a.m.-1 p.m. M-F). Or mail a check payable: to Pelican Island Audubon, P.O. Box 1833, Vero Beach, 32961

Please share this letter & spread the word! **SAVE THE DATE.** We look forward to your continued sponsorship!

Thank you very much,

Richard H. Baker, Ph.D.  
President

*Our Mission: To preserve and protect the animals, plants, and natural communities, and the land and water on which they depend in Indian River County through advocacy, education, and public awareness.*

**LEARN TO ENHANCE YOUR YARD WITH NATIVE PLANTS  
4TH TRANSFORMING LANDSCAPES  
FOR A SUSTAINABLE FUTURE**

**JANUARY 21, 2023  
AT THE EMERSON CENTER**

**1590 27TH AVENUE  
VERO BEACH, FL 32960**



**CONFERENCE SCHEDULE**



**SPONSORS**

Have your name or business listed here

- \$1,500
- \$1,000
- \$500
- \$250

8:00AM	Registration - Tickets \$25 includes box lunch and native plants for sale from native plant nurseries
9:00-9:50	<b>Dr. Craig N. Huegel</b> , Director University of South Florida Botanical Garden, <i>The Nature of Plants, How Plants Work</i>
10:00-10:50	<b>Dr. John W. Fitzpatrick</b> , Professor and Emeritus Director, Cornell Lab of Ornithology, Ithaca, NY, <i>Local Ups and Downs in Bird Populations: Recent Revelations from Deep Analysis of 'eBird' Citizen-Science Data</i>
10:50-11:20	Break
11:20-12:10PM	<b>Dr. Grant Gilmore</b> , President and Chief Scientist, Estuarine, Coastal and Ocean Science. Inc., <i>Your Lawn Grass versus Seagrass</i>
12:10-1:00	Lunch with Box Lunches included in the \$25 admission ticket for those attending in person.
1:00-1:50	<b>Sean Patton</b> , Stocking Savvy Environmental Consulting, Sarasota, FL, <i>Pond-side Living with Native Plants, Native Fish, for a Native Florida</i>
2:00-2:50	<b>Dr. Larry Reeves</b> , Assistant Professor, University of Florida, Florida Medical Entomology Laboratory, Vero Beach, <i>The biodiversity crisis and the importance of insects</i>
2:50-3:20	Break
3:20-4:10	<b>Timothee Sallin</b> , Co-CEO of IMG Enterprises, a diversified, family owned Florida agri-business, <i>How Do We Mainstream Sustainable Landscapes in FL?: Working with Master Planned Community Developers, Home Builders, Landscape Architects and Regulators to Shift from Conventional Landscapes to Sustainable Landscapes</i>
4:10-4:30	<b>Dr. Richard Baker</b> - Discussion and Summary

**LEARN MORE ABOUT PELICAN ISLAND AUDUBON SOCIETY**

**WWW.PELICANISLANDAUDUBON.ORG**

**PHONE: 772-567-3520**

**EMAIL: PIAUDUBON@YAHOO.COM**

## SPEAKER BIOGRAPHIES



**Dr. Craig N. Huegel**, Director, University of South Florida Botanical Garden, owner and operator of Hawthorn Hill Native Wildflowers, and teaches biology at St. Petersburg College. Former faculty member, Department of Wildlife Ecology and Conservation, University of Florida where he cofounded the Cooperative Urban Wildlife Extension Program. Author of *Native Florida Plants for Shady Landscapes*, *Native Wildflower and Other Ground Covers for Florida Landscapes*, and *Native Plant Landscaping for Florida Wildlife*. Uses central Florida landscapes as laboratories to evaluate native plants and grows a wide variety of species (mostly wildflowers) that are not commonly propagated elsewhere.



**Dr. John W. Fitzpatrick**, Professor and Emeritus Director, Cornell Lab of Ornithology, Ithaca, NY. A Minnesota native, Fitzpatrick received his B.A. from Harvard University (1974) and Ph.D. from Princeton University (1978). Through 1989 he was Curator of Birds and Chairman of Zoology at Chicago's Field Museum of Natural History, studying ecology of Tyrant Flycatchers and community dynamics of Andean birds. At Archbold Biological Station in central Florida, where he was Executive Director from 1988 to 1995, he maintains a 50+ year collaborative study of ecology, behavior, landscape genetics, and conservation of the endangered Florida Scrub-Jay. As Director of the Cornell Lab of Ornithology (1995-2021), Fitzpatrick oversaw development of the Lab into a world-renowned center for ornithology, conservation biology, and citizen science. He has authored more than 150 scientific papers, and co-authored four books including a leading college-level textbook on ornithology. Together with colleagues at the Cornell Lab, he pioneered eBird, now the world's largest citizen-science project and a global standard for ecological monitoring. His honors in ornithology and conservation include awards from American Ornithological Society, The Nature Conservancy, Linnean Society of New York, and National Audubon Society. He was President of the American Ornithological Society (2000 – 2002), served on the Board of Governors of The Nature Conservancy (1995-2006), Trustee of the National Audubon Society (1995 – 2001), and on three U. S. Endangered Species Recovery Teams. In 2020 he was elected Fellow of the American Association for the Advancement of Science (AAAS). Fitzpatrick lives with his wife, Molly, on a forested hillside in Ithaca, NY.



**Dr. Grant Gilmore**, President and Chief Scientist, Estuarine, Coastal and Ocean Science, Inc., doing marine research and technology development with emphasis on fish ecology and public education. Previously he was at Tropical Ecoscience, Inc., NASA/Dynamic Corp. Kennedy Space Center, and at Harbor Branch Oceanographic Institution (Fort Pierce) where he participated on seven international deep sea expeditions, using JSL submarines in the tropical western Atlantic, West Indies, Bahama Islands, Cuba, Galapagos, and Central America. These have been presented on 25 national and international television documentary programs by National Geographic Society, Discovery, Audubon, Animal Planet, New Zealand TV, FOX, two NPR radio programs, and "Living on Earth" series. He also writes popular columns for Florida Sportsman Magazine.



**Sean Patton**, Owner, Stocking Savvy, Environmental Consulting on Native Plants, Native Fish and Native Florida, Sarasota, FL. A graduate of New College of Florida, where he studied Marine Biology and Ecology. After graduating, he became an Aquatic Biologist working in the swamps, lakes, and other bodies of water found in Sarasota and Manatee Counties. After being disillusioned by the traditional, costly, impermanent, and ineffective systems within the private sector of environmental management, he began researching alternative methods of restoring Florida's landscapes to their most balanced and natural forms. Stocking Savvy was born with this vision in mind. Now, he utilizes naturally-occurring biological systems, native plant species, harvesting, and a coalition of green businesses to restore habitat across our state. He believes every backyard can be a flourishing habitat and every pond a paradise. Helps run the Sarasota Manatee EcoFlora Project helping document and identify plants in these counties and engage the public in citizen science.



**Dr. Larry Reeves**, Assistant Professor with the University of Florida, based at the Florida Medical Entomology Laboratory in Vero Beach. He is interested in mosquito diversity, ecology, and biology, and the ecology of mosquito control. Though his work is primarily focused on Florida, he has also worked on various projects in southern Arizona, the Philippines, Borneo, the Peruvian Amazon, and elsewhere. He has broad interests in biodiversity, and initially became interested in mosquitoes because they interact with a hugely diverse range of organisms, from *Nepenthes* pitcher plants, to marine mammals, to Burmese pythons, to the pathogens they transmit. He first realized the importance and central ecological position of mosquitoes when he was infected with dengue virus while studying Lepidoptera in the Philippines. Today, his research integrates lab and field work through DNA barcoding, using this, and other molecular techniques to understand species diversity and boundaries, to reveal interactions between mosquitoes and other species, and to better understand the evolution of mosquito host associations. In his research, he uses photography to both provide insight into research questions and ecological interactions between mosquitoes and other organisms, and to aid in communicating research results, teaching mosquito identification, and in mosquito-related messages targeting broad audiences. His images have appeared widely in the popular media, including in Newsweek, NPR, National Geographic, and National Wildlife.



**Timothee Sallin**, Co-CEO of IMG Enterprises, a diversified, family owned Florida agri-business. IMG Enterprise is the parent company of Cherrylake and IMG Citrus. Timothee is passionate about promoting sustainable agricultural and sustainable landscape practices in Florida as well as innovation in agricultural technology and organizational leadership. Timothee is a board member of 1000 Friends of Florida, a non-profit organization dedicated to saving special places and building better communities. A graduate from New College of the University of South Florida, Timothee earned a degree in Economics and International Studies. Timothee is also a graduate from the University of Florida's Wedgworth Leadership Institute for Agriculture and Natural Resources.



**Blue-Green Algal Bloom Weekly Update - September 29, 2022**

1 message

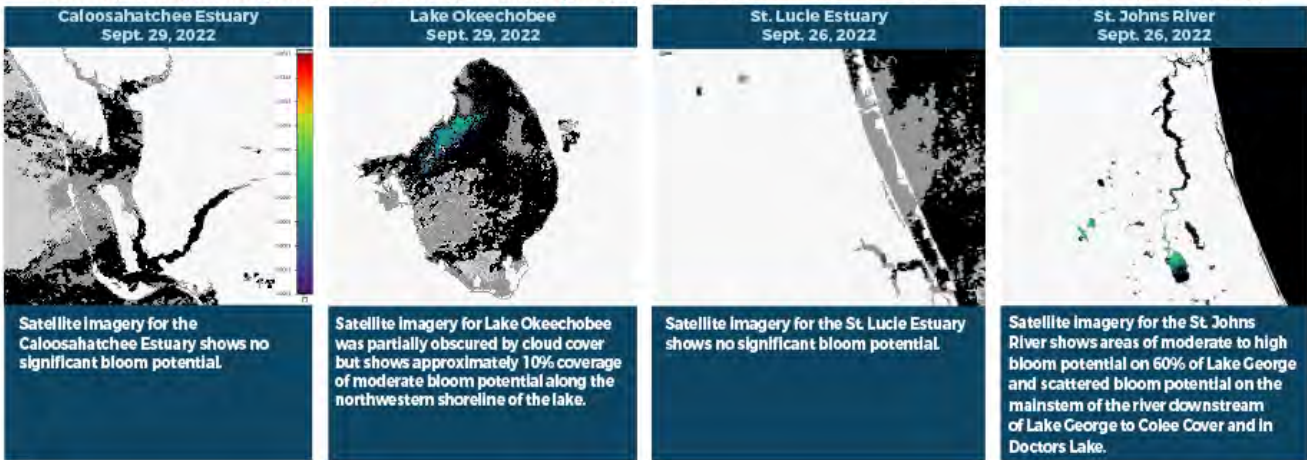
Florida Department of Environmental Protection <FloridaDEP@public.govdelivery.com>  
 Reply-To: FloridaDEP@public.govdelivery.com  
 To: info@fssr.org

Fri, Sep 30, 2022 at 4:00 PM

View the [weekly report online](#) or visit DEP's [Algal Bloom Dashboard](#)



Satellite Imagery provided by NOAA - Images are impacted by cloud cover.  
 A value of 0.004 is nominally equivalent to approximately 20-30 ug/L chlorophyll a of cyanobacteria, and 0.06 would be in the 300-500 ug/L chlorophyll a range.  
 Please keep in mind that bloom potential is subject to change due to rapidly changing environmental conditions or satellite inconsistencies (i.e., wind, rain, temperature or stage).



**SUMMARY**

There were 10 reported site visits in the past seven days with 10 samples collected. Algal bloom conditions were observed by samplers at four sites.

On 9/26, Florida Department of Environmental Protection staff performed five harmful algal bloom (HAB) response visits. Dominant algal taxa and cyanotoxin results follow each waterbody name.

- Lochloosa Lake - NE in Veg: *Microcystis aeruginosa* dominant, no cyanotoxins detected.
- Lochloosa Lake - entrance to Cross Creek: *Microcystis aeruginosa* dominant, no cyanotoxins detected.
- 183rd Ave Canal - off Cross Creek: *Microcystis aeruginosa* dominant, no cyanotoxins detected.
- Lochloosa Lake - Lochloosa Park and Boat Ramp: *Microcystis aeruginosa* dominant, no cyanotoxins detected.
- Violet Lake - 130 Violet Circle: No dominant algal taxon, trace level (0.32 parts per billion [ppb]) cylindrospermopsin detected.

On 9/26-9/27, the St. Johns River Water Management District collected five routine HAB monitoring samples.

- Stick Marsh - North: No dominant algal taxon, no cyanotoxins detected.
- Lake George - Center: *Microcystis aeruginosa* dominant, trace level (0.16 ppb) cylindrospermopsin detected. Result is qualified due to sample arriving above acceptable temperature.
- Blue Cypress Lake - Center: No dominant algal taxon, no cyanotoxins detected.
- Crescent Lake - mouth of Dunns Creek: *Microcystis aeruginosa* dominant, trace (0.11 ppb) cylindrospermopsin detected.
- Lake Monroe - Center: No dominant algal taxon, no cyanotoxins detected.

**Last Week**

On 9/22, Orange County staff collected one HAB response sample.

- Lake Speer - NW Lobe: *Microcystis aeruginosa* dominant, 2.0 ppb microcystins detected.

Results for completed analyses are available at [FloridaDEP.gov/AlgalBloom](https://FloridaDEP.gov/AlgalBloom).

*This is a high-level summary of the sampling events for the reported week. For all field visit and analytical result details, please refer to the complete algal bloom map with data table by clicking the "Field and Lab Details" Quick Link from the Algal Bloom Dashboard. Different types of blue-green algal bloom species can look different and have different impacts. However, regardless of species, many types of blue-green algae can produce toxins that can make you or your pets sick if swallowed or possibly cause skin and/or eye irritation due to contact. We advise staying out of water where algae is visibly present as specks or mats or where water is discolored pea-green, blue-green or brownish-red. Additionally, pets or livestock should not come into contact with algal bloom-impacted water or with algal bloom material or fish on the shoreline.*

**LAKE OKEECHOBEE OUTFLOWS**



**SITE VISITS FOR BLUE-GREEN ALGAE**



# NOTICE OF PUBLIC HEARING FOR COMPREHENSIVE PLAN FUTURE LAND USE MAP AND TEXT AMENDMENT CITY OF SEBASTIAN, FLORIDA

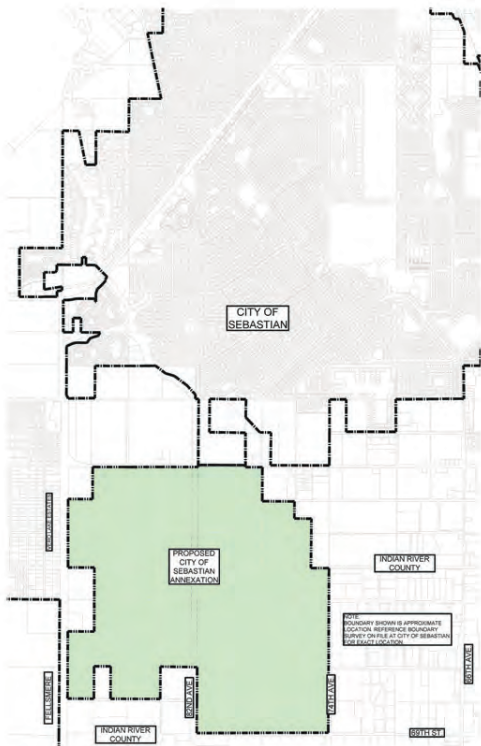
The City Council of the City of Sebastian, Indian River County, Florida, proposes to consider adoption on first reading of the following ordinance:

## ORDINANCE NO. O-22-13

AN ORDINANCE OF THE CITY OF SEBASTIAN, FLORIDA, RELATING TO THE COMPREHENSIVE PLAN; AMENDING THE FUTURE LAND USE MAP BY ESTABLISHING A LAND USE CLASSIFICATION OF MU (MIXED USE) FOR ANNEXED LAND WITH A PRIOR COUNTY LAND USE DESIGNATION OF AG-1 (AGRICULTURAL) ON PROPERTY CONSISTING OF 1913.593 ACRES, MORE OR LESS, LOCATED SOUTH OF COUNTY ROAD 510, WEST OF LANDS ADJACENT TO 74<sup>TH</sup> AVENUE, NORTH OF 69<sup>TH</sup> STREET, AND EAST OF 90<sup>TH</sup> AVENUE; AMENDING THE LAND USE ELEMENT WITH SITE SPECIFIC POLICIES; AUTHORIZING FINDINGS AND ADMINISTRATIVE ACTIONS; PROVIDING FOR CONFLICTS; PROVIDING FOR SEVERABILITY; PROVIDING FOR SCRIVENER'S ERRORS; PROVIDING AN EFFECTIVE DATE AND PROVIDING AN ADOPTION SCHEDULE.

A public hearing on the ordinance will be held on Wednesday, October 12, 2022, at 6:00 p.m., or as soon thereafter as may be convenient to the Sebastian City Council, in the City Council Chambers, City Hall, 1225 Main Street, Sebastian, Florida. The public hearing may be continued from time to time by the City Council.

Following the public hearing, the City Council may transmit the ordinance to the Department of Economic Opportunity for review, and schedule a second reading and adoption hearing.



Interested parties may inspect the proposed ordinance and the complete legal description of the property by metes and bounds during regular business hours in the Community Development Department at City Hall, Monday through Friday 8 a.m. to 4:30 p.m., except during City holidays, and may appear at the hearing and be heard with respect to the proposed ordinance, or may submit written comments to the City Council. For further information, please contact the Community Development Department at (772) 589-5330. Pursuant to Section 286.0105, Florida Statutes, the City hereby advises you that if you or another person decides to appeal any decision which may be made by the City Council at this hearing that you or said person may need to ensure that a verbatim record of the proceedings is made which record includes the testimony and evidence upon which the appeal will be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals not otherwise allowed by law.

In compliance with the Americans With Disabilities Act (ADA) and Section 286.26, Florida Statutes, anyone who needs a special accommodation to participate in this meeting should contact the City's ADA Coordinator at 772-589-5330 at least 48 hours in advance of the meeting.

By: City of Sebastian

Publish: Vero Beach Press Journal  
Sunday, September 25, 2022

TR-GC10948842-01

**From:** [Lagoon Voices](#)  
**To:** [Friends](#)  
**Subject:** Advocate for Septic Inspections and Low Impact Development  
**Date:** Thursday, September 22, 2022 6:03:13 PM

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Dear Lagoon Supporter:

The Elections are fast approaching and the new legislative session will begin shortly thereafter. We want to be prepared to encourage State and local candidates and newly elected officials to stand up for the Lagoon.

We are currently drafting asks on two topics of major importance to the Lagoon's restoration:

- Mandatory inspection of septic systems (Onsite Sewage Treatment and Disposal Systems or OSTDS) upon the sale or transfer of property within Brevard County.
  - Leakage from OSTDS account for more than 20% of the Nitrogen polluting the Lagoon. While the Save Our Indian River Lagoon Trust Fund is taking steps to eliminate some of the most damaging systems, there is no current state or local law that requires inspection of OSTDS. We believe that requiring inspection of systems upon sale of the property makes practical sense and will help accelerate clean up of these systems. (Lew Kontnik, 321 775 3327, [LewKontnik@gmail.com](mailto:LewKontnik@gmail.com), Lead).
  
- Authorize local governments to mandate Low Impact Development (LID) requirements for new projects beginning in 2024.
  - State law currently does not allow local governments to establish regulations requiring new developments to include Low Impact Development standards as part of their site plan. In response to the state Clean Water Act of 2020, there is new guidance that includes the

use of Low Impact Development standards for new developments, but we believe that these practices should be mandatory, allowing Local governments to set standards that meet or exceed state recommendations. (Craig Wallace, 321-831-8687; [gatorcw@bellsouth.net](mailto:gatorcw@bellsouth.net), Lead).

We expect to share the final campaign asks with our Lagoon Voices in the next two weeks and we ask you to begin to advocate for these positions. Watch for additional information on our [Lagoon Voices campaigns](#) webpages.

Our two leads, Lew and Craig are working now to finalize our work on OSTDS and LID and they can use help. **If you have an interest in helping to finalize one of them, please contact the Lead for that topic.**

In closing, thank you again for joining the Lagoon Voices. Please talk to your friends and let them know that they too can become a Lagoon Voice. Encourage others to visit <https://helphelagoon.org/voices/> and join the team.

And, always feel free to contact us at [Voices@helphelagoon.org](mailto:Voices@helphelagoon.org) with questions or suggestions.

Respectfully,

Lew Kontnik

[Voices@HelpTheLagoon.org](mailto:Voices@HelpTheLagoon.org)



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*Copyright © 2022 Brevard Indian River Lagoon Coalition, All rights reserved.*

The Brevard Indian River Lagoon Coalition stands united in our desire to restore the Indian River Lagoon.

**Our mailing address is:**

Brevard Indian River Lagoon Coalition  
PO Box 510492  
Melbourne Beach, FL 32951





**VOTE YES TO**

# **PRESERVE OUR PARADISE**

## **Environmentally Endangered Land & Water Referendum**

**Protects natural spaces** for wildlife, fish, woodlands and birds

**Good for our economy**

- » Improves property values, increases tourism dollars, attracts new businesses
- » Preserves Indian River Lagoon shorelines

**Enhances Quality of life**

- » More recreation and nature education
- » Preserves natural environment we treasure

**Reduces pollution entering the Indian River Lagoon and St Johns River**

**PRESERVING NATURAL LANDS SINCE 1991**

For your family & future generations— *many places you may know and love across Brevard*

Land purchased only from people who want to sell

**A SUCCESSFUL AND VALUABLE PROGRAM**

- » **28,000 acres** preserved and restored (2% of Brevard's total acreage)
- » **Created 75 miles** of public use trails
- » **Protected 35 miles** of Indian River Lagoon shoreline
- » **Created three** educational centers

**AN AFFORDABLE INVESTMENT FOR VOTERS**

When renewed by voters, this ongoing conservation effort will continue a property tax, costing the average Brevard County homeowner **about \$3.60 a month.**



**Your vote on NOVEMBER 8 makes a difference.**



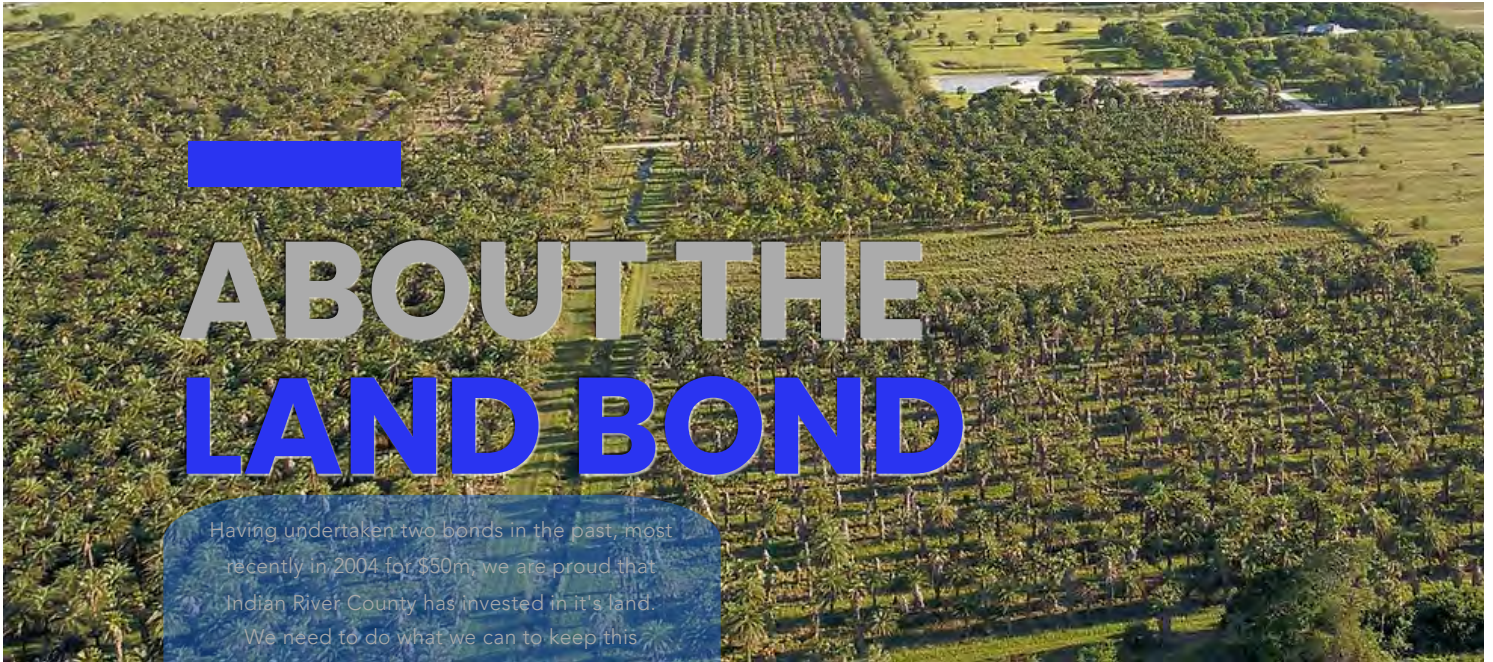
Find out how you can help @ [preserveourparadise.com](http://preserveourparadise.com)





R" BONDS

TECT WATER RESOURCES,  
RAL AREAS, AND WILDLIFE HABITAT  
OVEMBER 8



Having undertaken two bonds in the past, most recently in 2004 for \$50m, we are proud that Indian River County has invested in it's land. We need to do what we can to keep this investment growing.

# Who is behind this campaign?

Our Campaign is supported by individuals and organizations across the county. Most of the organizational work has been done by:

- Ken Grudens, Indian River Land Trust
- Dr. David Cox, Pelican Island Conservation Society
- George Glenn, Pelican Island Audubon Society
- Dan Lamson, Indian River Neighborhood Association and Clean Water Coalition

Check out our [supporters page](#) to see all the organizations who are behind this initiative.

# HISTORY

- 1992 Bond Passage: \$26M
- 2004 Bond Passage: \$50M (bond satisfied 2021)
- 2014 Amendment 1: 75% of County residents voting yes.

This led to:

- 41 projects
- Appraised value for all projects: \$148,464,374
- County's expenditure towards projects: \$76,137,451
- Cost-share towards projects: \$62,270,292
- [Click here](#) to go to the County's website showing conservation lands, many of which were purchased with previous bond funds.

We can protect even more lands if we work together and pass the 2022 Land Acquisition Bond.

We have a history of conservation in this county! Since 1903 and the formation of the Pelican Island National Wildlife Reserve and it's 5,376 acres of conservation land, Indian River County has been at the forefront of Land Conservation. It is in our blood, and we will continue to preserve environmentally significant lands for as long as we can.

# Now

On the November 8, 2022 Ballot in Indian River County, there will be a question asked of you. The exact wording of the ballot initiative is here:  
OFFICIAL BALLOT

COUNTY OF INDIAN RIVER, FLORIDA  
BOND REFERENDUM ELECTION – NOVEMBER 8, 2022

ACQUIRE LANDS TO PROTECT WATER RESOURCES, THE INDIAN RIVER LAGOON, NATURAL AREAS, AND WILDLIFE HABITAT

To acquire and permanently preserve environmentally significant lands to restore the Indian River Lagoon, protect water resources, natural areas, wildlife habitat, drinking water resources, and construct public access improvements related thereto, shall Indian River County be authorized to issue general obligation bonds up to \$50,000,000, maturing within 20 years from each issuance, not exceeding the legal maximum interest rate, payable from ad valorem taxes, with full public disclosure of all spending through annual independent audits?

For Bonds  
Against Bonds

For only \$44.00 a year, less than \$4 a month to the average residence, Indian River County can protect the lands that make our community desirable.

# Where are



**Friends of St. Sebastian River  
Education/Outreach Committee Report – Diana/Bob/Tim  
October 11, 2022**

South Prong Preserve/Ryall property Open House, Saturday, November 12, 2022

At the Volunteer Committee meeting last month, we suggested holding an “open house” event on November 12th, from 10am to 4pm, inviting the public to stop by for a visit to the Ryall property only – south side of the Preserve is not yet open to the public yet. Board members and possibly a volunteer or two, would be available throughout the day to greet people stopping by to answer questions, provide information, offer an informal tour to anyone interested, and sign up those interested in being notified of upcoming volunteer opportunities, via email. It was suggested that we provide water or other drinks, and perhaps some ice cream treats. The following are some details about the property/facility and logistics for the use by greeters.

We should not invite anyone onto the deck, if we have not done safety improvements in time for the event. We have “Keep Off Deck” signs that should be posted at either entrance to the deck.

Facts and details:

- The previous owner of the Ryall property was Margaret “Gussie” Ryall. She was a citrus grower, part of the Ryall family who grew citrus in the area for many years. She was concerned about maintaining the beauty and environment on her property, and the St. Sebastian River which runs through it. She was working with the County to acquire the property, for conservation, prior to her death in 2006. The property was eventually acquired in 2006, after her death, with matching funds from the Florida Communities Trust, with the provision it be made accessible to the public, thus the County’s offer for the FSSR to assist.
- The house was built in the mid-1980s.
- The South Prong Preserve consists of two properties acquired at different times – the Ryall property in 2006 (approx. 10 acres on the north side of route 510), and the Stough property in 2007 (approx. 29 acres on the south side of route 510).
- When route 510 is widened, the FDOT has assured us they will replace the culvert under the road on the southeast corner of the property, where the South Prong crosses under, with a “box” culvert and the natural streambed will be restored. A wildlife/pedestrian underpass will be provided under the bridge over the lateral canal at the southwest corner of the property, connecting the north and south properties together.
- IR County plans to provide improvements to the south side, to include a pavilion and boardwalk through the river slough. We believe that work should begin next year.
- The FSSR plans for the property include native plant/butterfly gardening, invasive plant removal, creating a trail along the river, bird watching, etc.
- IR County has asked that we don’t “advertise” the IR County Mosquito Control sentinel chickens on the property, but we can provide info, if asked about it.
- IR County has asked that we don’t “advertise” the wild hog hunting contractor effort, and should avoid taking the public back that far, for now.

# Audience

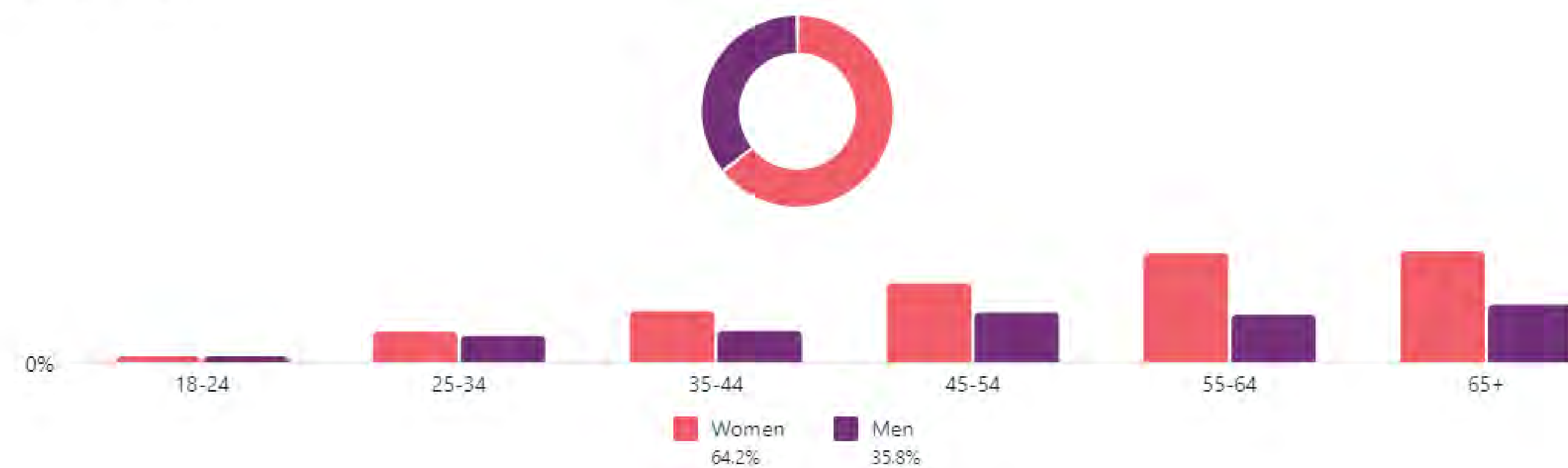
Current audience

Potential audience

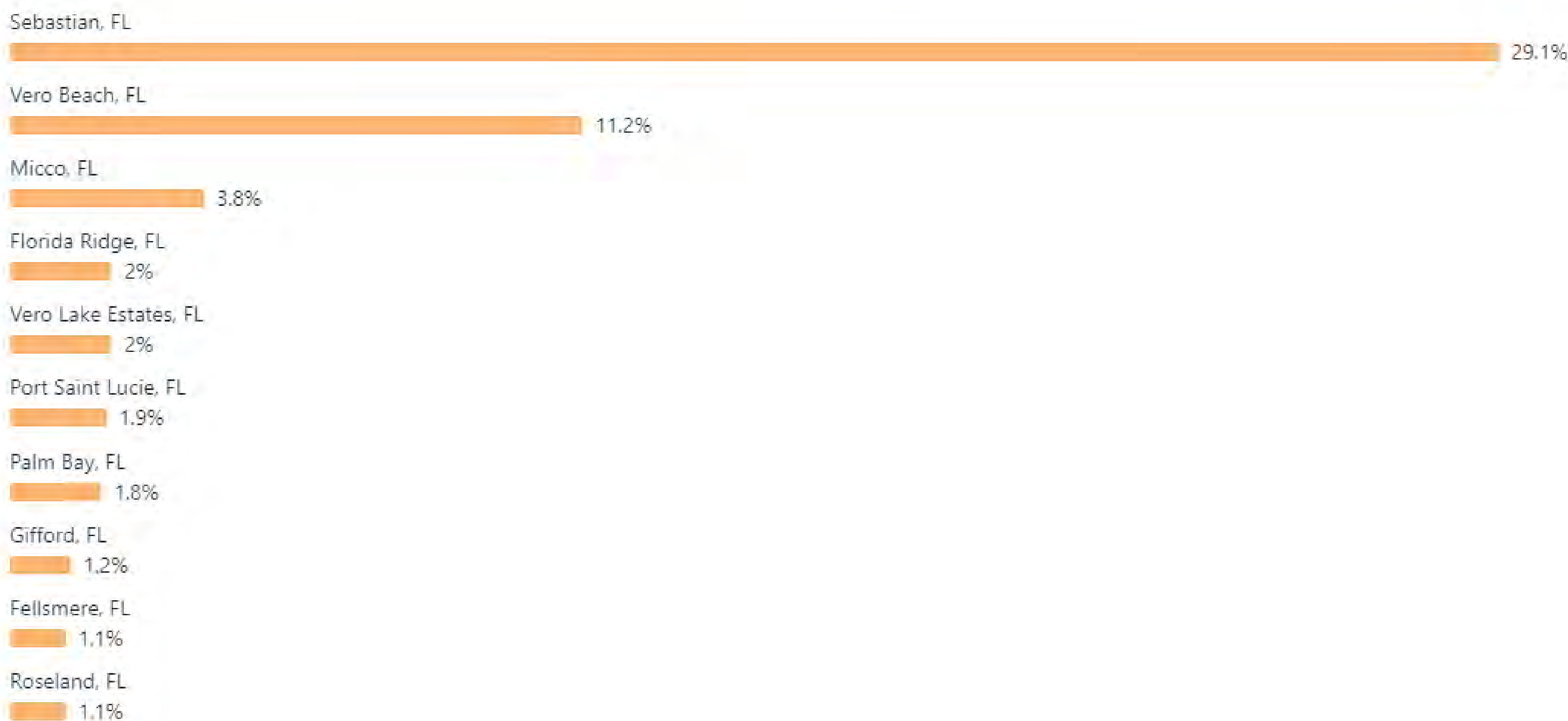
Facebook Page likes ⓘ

910

Age & gender ⓘ



## Top cities



## Top countries

- United States
- India
- Canada
- Uganda
- Belgium
- Chad
- Dominican Republic
- Ghana
- Haiti
- Ukraine

### Reach out to new people

The more people like your Page, the easier it is for others to discover your brand. Send invites to people who reacted to your Facebook posts to like your Page.

[Learn more](#)

Send invites



## Results

### Facebook Page reach ⓘ

573 ↑ 118.7%



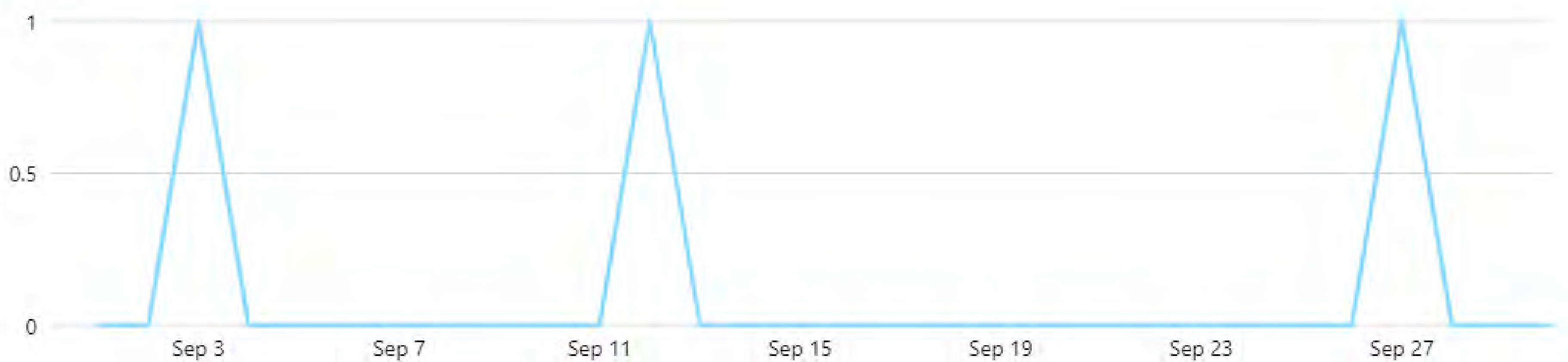
### Facebook Page visits ⓘ

24 ↓ 29.4%



### Facebook Page new likes ⓘ

3 ↑ 50%

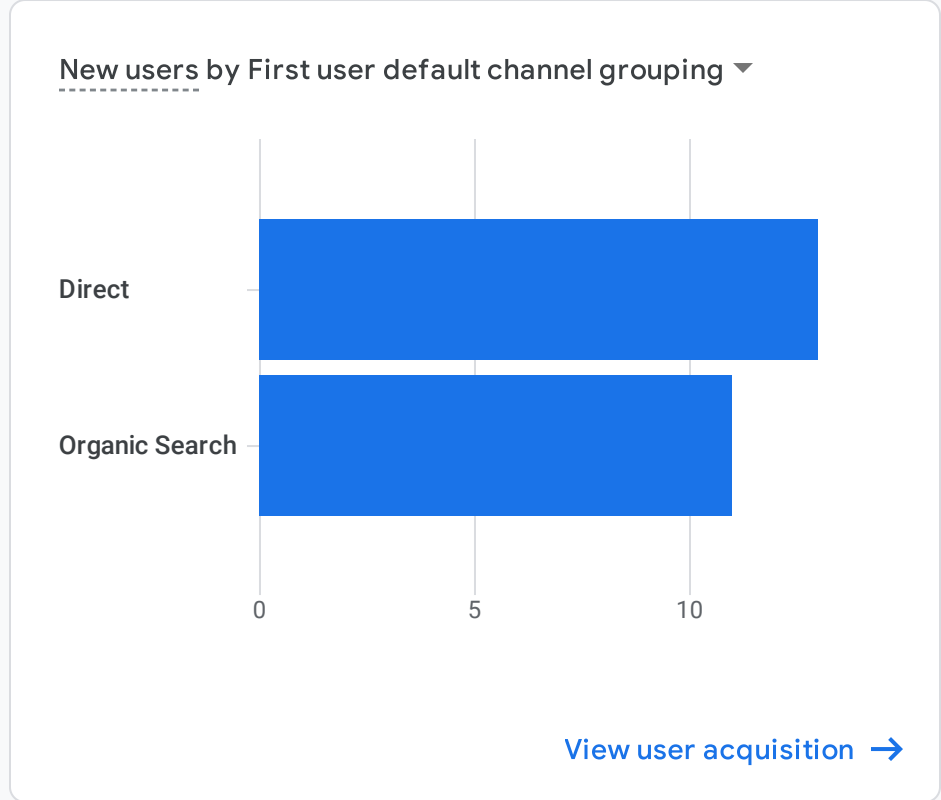


All Users [Add comparison +](#)

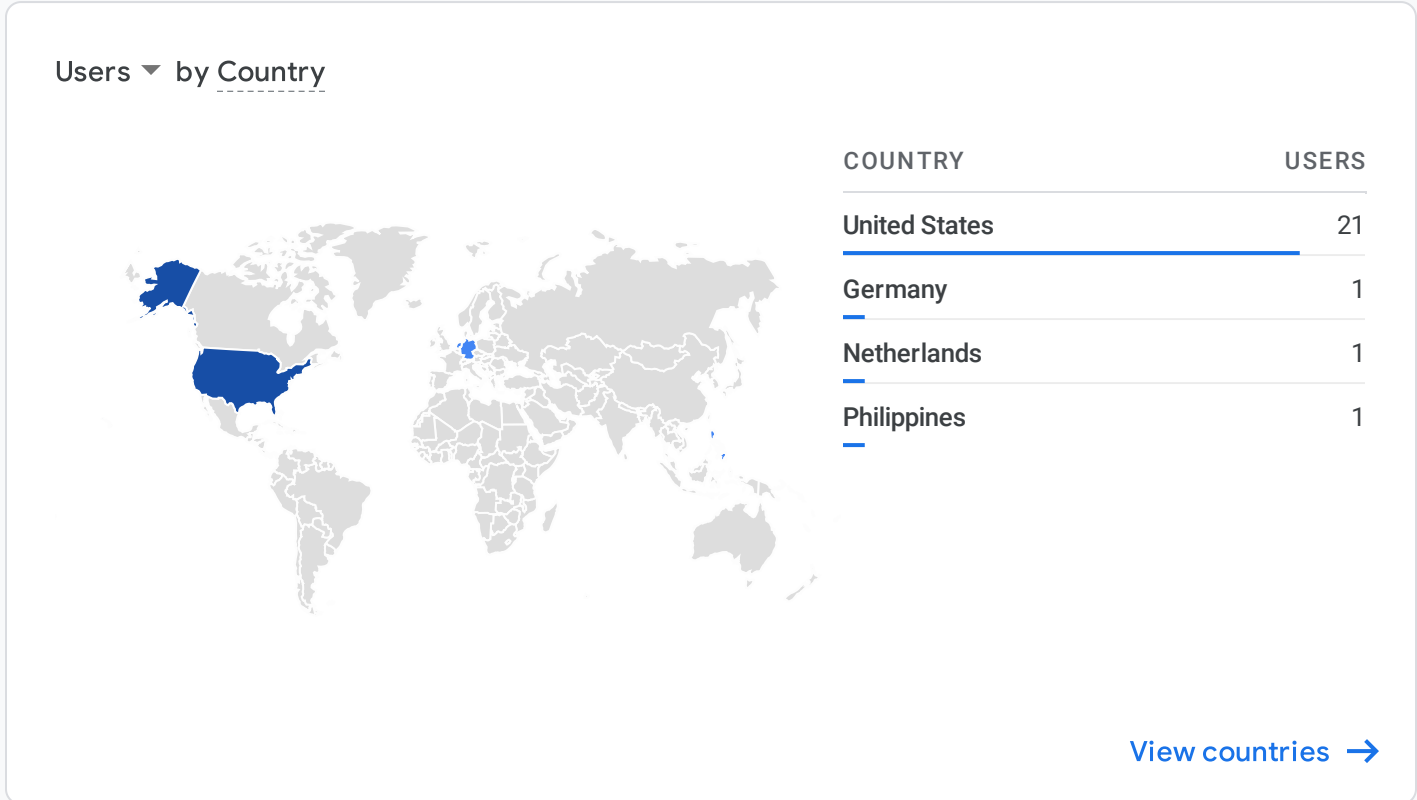
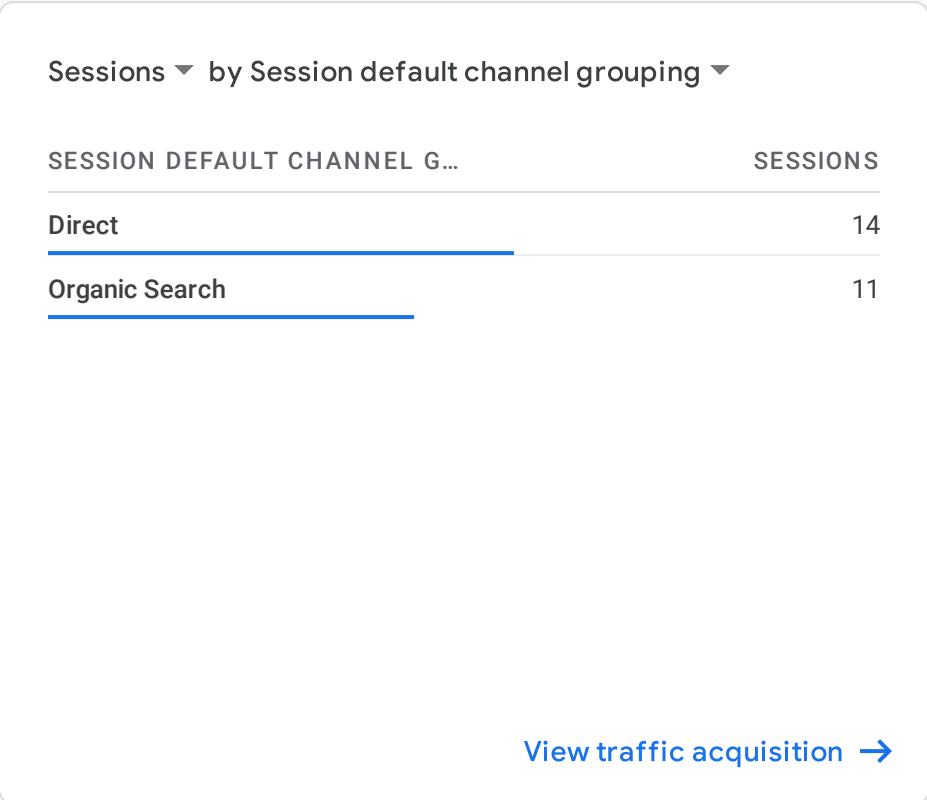
Last 28 days Sep 11 - Oct 8, 2022 ▾

Reports snapshot [✔ ▾](#)

WHERE DO YOUR NEW USERS COME FROM?



WHAT ARE YOUR TOP CAMPAIGNS?



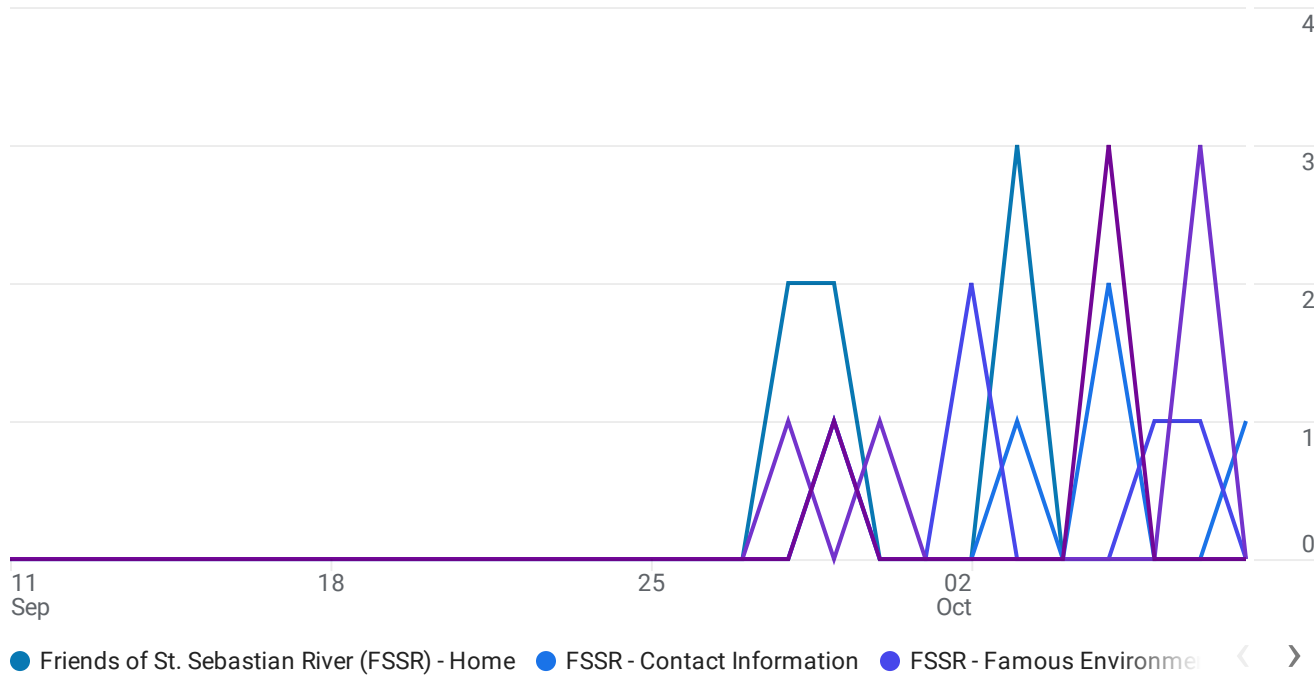
All Users Add comparison +

Last 28 days Sep 11 - Oct 8, 2022 ▾

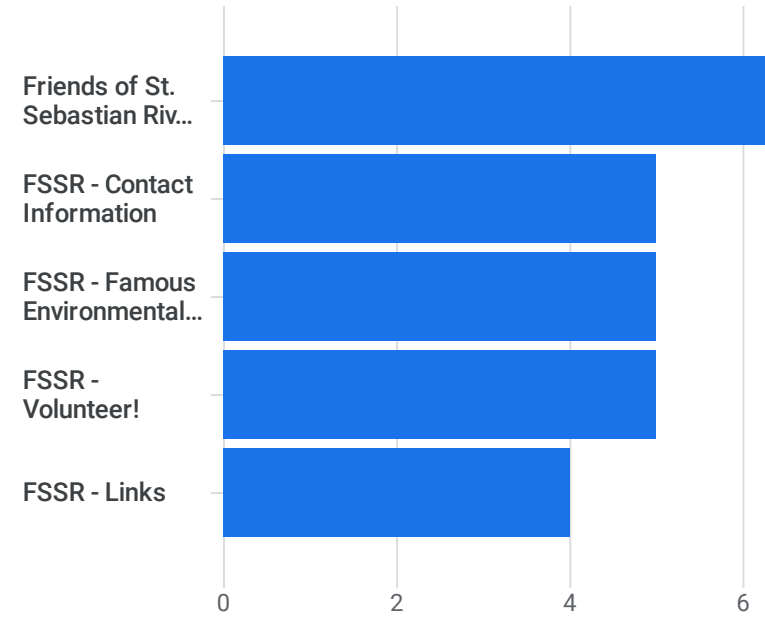
Pages and screens: Page title and screen class ✓ ▾

Add filter +

Views by Page title and screen class over time



Views by Page title and screen class



Search...

Rows per page: 10 ▾ 1-9 of 9

Page title and screen class <span>▾ +</span>	↓ Views	Users	New users	Views per user	Average engagement time	Unique user scrolls
	<b>35</b> 100% of total	<b>24</b> 100% of total	<b>24</b> 100% of total	<b>1.46</b> Avg 0%	<b>1m 06s</b> Avg 0%	<b>6</b> 100% of total
1 Friends of St. Sebastian River (FSSR) - Home	7	5	5	1.40	0m 03s	2
2 FSSR - Contact Information	5	4	2	1.25	0m 10s	2
3 FSSR - Famous Environmental Quotations	5	5	5	1.00	2m 50s	1
4 FSSR - Volunteer!	5	4	3	1.25	1m 33s	0
5 FSSR - Links	4	3	3	1.33	0m 14s	1
6 FSSR - About Us	3	3	2	1.00	0m 03s	0
7 FSSR - News and Information	3	3	3	1.00	0m 06s	0
8 FSSR - Water Quality Sampling/Parameters	2	1	1	2.00	0m 16s	0
9 FSSR - Photo Gallery	1	1	0	1.00	3m 39s	0

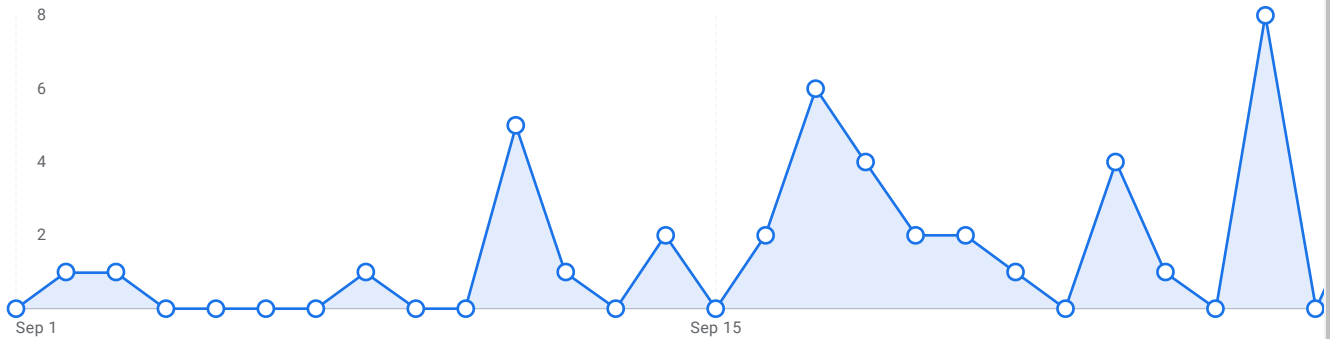


Time period  
📅 Sep 2022 - Sep 2022

- [Overview](#)
- [Calls](#)
- [Messages](#)
- [Bookings](#)
- [Directions](#)
- [Website clicks](#)

# 44

Business Profile interactions ⓘ



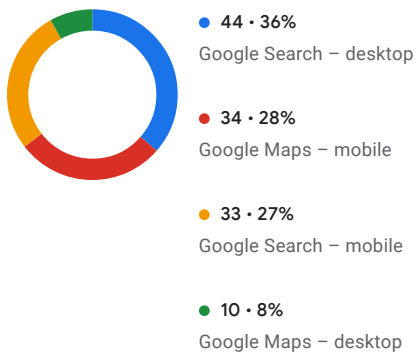
How people discovered you ⓘ

## 121

👁️ People viewed your Business Profile

### Platform and device breakdown

Platform and devices that people used to find your profile



## 18

🔍 Searches showed your Business Profile in the search results

### Searches breakdown

Search terms that showed your Business Profile in the search results

- st sebastian florida 18
- friends of sebastian < 15
- friends of st. sebastian river < 15
- roseland road sebastian fl stateline < 15
- san sebastian near vero beach < 15

[See more](#)

**Friends of St. Sebastian River  
Volunteer Committee Report - Carol Lynn Peterson and Tim Glover  
October 11, 2022**

On Friday, September 23, 2022, Diana Bolton, Tim Glover, Peter Hinck, Carol Lynn and Sandy Peterson, and Janice Broda, Eugenia Chapter, Florida Native Plant Society, met at the Ryall house for a brainstorming meeting to discuss volunteer and public outreach activities to be held at the Ryall property. As per our license agreement with Indian River County, para. 7, we are to “provide at least 12 educational programs per year.... Such programs may include volunteer work days.”

In consideration of this requirement, we initially plan to hold three scheduled events throughout each month during the coming season, to be held on the mornings of the second and fourth Fridays (hours not discussed, perhaps 9am to 12pm?), and the morning of the third Saturday (perhaps 9am to 12pm). The specific activities are not set in stone and don't necessarily need to be published – allow event leader to decide on needed/possible activities, to be announced through Facebook and by email notification to established volunteer list. They may also depend on the interests of those volunteering. Activities may include: preparation for the installation of native plantings around the house, improving pavers and paths for access, installing some form of barrier on the railing of the deck to provide security/prevent injury, facility maintenance such as outside lighting, cleaning gutters, plumbing repairs, determining if the security system is workable, office work, establishing a walking trail along the South Prong, trash cleanup along route 510, invasive plant removal, bird watching, plant ID tours/inventory, development of trail tours – on and off-site, driveway entry improvements, etc. Janice has started a native and invasive plant list for the property and will maintain/update that list, and make available to us.

As per our license agreement, we are to provide the “County with a schedule of monthly office hours, meetings and educational programs for the upcoming month. FSSR shall provide County with 1 days' notice of any cancellations or changes to the schedule.” I have not discussed this provision with Wendy Swindell, now the IR County Conservational Lands Manager. (Beth Powell was promoted (permanently?) when her boss left. Their offices are now located at the IG Center on Oslo Rd. in Vero Beach.) They don't seem to be overly concerned about our activities and schedule. I'm guessing they would accept, as notice, that we publish our activities to our online Google Calendar, which is embedded on our website, on the “Meeting Info/Events” page here – [www.fssr.org/meeting.htm](http://www.fssr.org/meeting.htm). This Calendar is one of the many features that are part of our Google account. Updates on the Calendar in our Google account are immediately reflected in the embedded calendar on our website. As a courtesy, we should plan to notify Wendy, or anyone else they designate as a liaison, of any schedule changes. Such changes would also need to be noticed to Penny, our Facebook page administrator, and any volunteers who are signed up for, or may be interested in the event.

We discussed getting students involved with activities at the Ryall property. A couple of contact names came up – Julia Held who now teaches fulltime in Sebastian. She has previously expressed interest in having her students participate in some project or activity, once we are established and organized to host them. Diana will check with Julia. Janice also mentioned that Kei Andrews is a science teacher at the Sebastian River High School and may be interested in assisting. Tim will check with the school guidance counselor to see if they still have an active, extracurricular environmental group.

If approved by the Board, and acceptable with Wendy/IR County, we could perhaps start with our first advertised activity in late October (fourth Friday). We also decided to hold an “open house” on Saturday, November 12, from 10am to 4pm. This event would be noticed to members via email, the public through our Facebook page, and hopefully print media/calendars. We would provide drinks and perhaps small ice cream treats. We would need to coordinate with Wendy to make sure the area has been mowed for parking and facilities are “spruced up.” The idea is to attract members of the public who are interested in learning more about the South Prong, the FSSR, and volunteer opportunities at the Ryall property. We would provide an email list sign-up sheet for those interested in notifications. We could also sign them up directly via the sign-up link on our website using a mobile device, on the spot! Informal tours could be provided by Board members – see the Education/Outreach Committee Report for more details.

The following is my draft of what I envision the responsibilities would be of event leaders and a volunteer chairperson/coordinator –Tim.

**Volunteer Committee Chair/Coordinator**

The primary responsibilities of this person are communication and coordination, i.e. there is no necessity to actually participate hands-on in any event or activity. This person would suggest changes and/or updates to our scheduled activities to the Board for consideration. They would also provide a monthly Volunteer Committee Report for the Board agenda, with, at the least, a recap/overview of activities conducted the prior month, number of participants, any known issues/problems/complications/cancellations, need for supplies, status of a project with an expected completion. They would need to coordinate with leaders regarding needed communications to expected/prospective volunteers, to include changes/cancellation due to weather, change in timing, illness and possible substitution of a leader. This information may need to be provided to the Facebook coordinator, depending on timing and significance of the change. Notification may need to be provided to Wendy/County, if they would like specific notification, vs. updates to the online calendar.

I would suggest that this person should be the one to issue necessary communications to volunteers, as some leaders may be less interested/diligent in such coordination and communication, than others. It would seem that communications should be timely, consistent and appropriate. This person should also be a Board member, or trusted volunteer, as they will need access to a volunteer list and there is a necessity of maintaining the security and integrity of such names and contact information.

This person also needs to check that volunteers are logging their hours, as provided by the leader via the event sign-in information, and follow-up with reminders, as needed, to make sure this is accomplished. As required by para. 7 of our license agreement, this person would need to provide a report "...to the County on a monthly basis with the number of attendees, hours volunteered, and program/event attended." This information would be available from event leaders via the sign-in sheet, and the spreadsheet in Google Drive, in our Google account, that records the responses of entered volunteer hours through our website at [www.fssr.org/volunteer](http://www.fssr.org/volunteer).

The volunteer coordinator needs to make sure event leaders are qualified/capable of conducting a specific event or activity. They would coordinate any needed training of leaders, and details needed to access necessary supplies and facilities.

### **Event/activity Leader**

The responsibility of an event leader is to provide access to the site/facility where the event will be held. In the case of the Ryall property, they will need the code for gate access and either key or door code access to the house. Access to the house should be limited to the use of restroom facilities and kitchen/refrigerator to store drinks and snacks. Free access to the house should be monitored until the door is replaced on the office that will have a separate door lock/key. They will need access to the office if on-site internet and phone service is necessary.

The leader will need to coordinate with the volunteer coordinator for needed communications and logistics, i.e. changes, cancellations, illness, etc. They will also need to be familiar with location/storage of needed supplies. Any equipment used should be retrieved from volunteers, cleaned and returned to storage. Any needed replenishment of supplies should be communicated to the volunteer coordinator. The FSSR debit card is in the name of Tim Glover (an individual name is required by the bank) and therefore Tim or the Treasurer would likely be the one to purchase needed supplies and equipment, with Board approval, as appropriate.

The leader needs to check volunteers in for each event, have them sign the release/hold-harmless waiver and show, and remind them, how to log their volunteer hours. The leader needs to also keep track of these hours on the sign-in sheet and provide a copy to the volunteer coordinator, so that they can make sure this information is reported by the volunteers, and then to the County each month.

For an invasive plant removal event, I would suggest limiting access to the herbicide/chemicals. The herbicide currently available at the Ryall house is left over from what the County provided to the person/s living at the residence prior to our access. This is County material/equipment and therefore coordination needs to be conducted with the County. The herbicide is required to be applied by a licensed applicator, or a license applicator needs to be accessible immediately by phone or otherwise, in the event of an accident. The County also needs to record the amount of herbicide used, and for what purposes. So far, Tim has been the only one using the herbicide and suggests that it be a limited number of persons who are allowed to do so.

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**Pollution mapping with citizen scientists**

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**Team ORCA** <news@teamorca.org>  
Reply-To: ltracy@teamorca.org  
To: info@fssr.org

Thu, Oct 6, 2022 at 8:30 AM



OCEAN RESEARCH & CONSERVATION ASSOCIATION, INC.

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### **MAPPING POLLUTION WITH CITIZEN SCIENTISTS**

In order to understand complex ecological problems, you need large amounts of data that is consistently collected over a long period of time. ORCA's Pollution Mapping Citizen Science Project involves on-going comprehensive monitoring of specific sites within the Indian River Lagoon.

This project allows us to pinpoint pollution sinks and hotspots by assessing the accumulation of nutrients and toxins in sediment and water samples throughout the lagoon. Utilizing further analyses and our new integrative samplers, our goal is to track the exact source of pollutants to stop further eutrophication.

Using this data, we identify locations that would benefit from restoration, and work to educate citizens with actionable solutions as well as engage communities in conservation action.



ORCA citizen scientists from Martin County working alongside ORCA Lab Assistant Wyatt Martin collecting muck samples from site adjacent to Central Marine.

**70+**  
citizen scientists  
participating in  
pollution mapping

**24**  
pollution mapping  
sites being monitored

**20**  
analyses being  
performed

**1** of a  
kind  
public citizen science  
data website



During each quarterly monitoring event, citizen scientists measure basic water quality parameters, measure muck depth, and collect both water and sediment samples to be brought back to the Center for Citizen Science for analyses.

Once at the lab, citizen scientists composite and prepare samples for particle analysis, as well as measure nutrient concentrations in both water column and pore water samples.



## CURRENT ANALYSES:

- Nutrients (Nitrate/Nitrite, Phosphate, Ammonia) in water & pore water
- Herbicides: glyphosate, atrazine, & diquat di-bromide
- Acetaminophen & Sucralose
- Relative toxicity
- Alkalinity
- DNA analysis for antibiotic resistant genes
- Annual heavy metals, (Copper, Lead, & Mercury), TOC, and Total Sulfur

## NEW:

- Microplastics in sediment & water
- Biotoxins
- PFAS \*forever chemicals

*Rosa Tierman, an ORCA citizen scientist since 2020, analyzes samples at ORCA's Center for Citizen Science in Vero Beach.*

Engaging citizen scientists in this project not only provides an opportunity for participants to better understand the problems facing the lagoon but also allows us to accumulate a large data set that continues to increase both spatially and temporally. With the expansion of this project across four counties and 24 sampling sites, we are increasing our chances of recording and understanding unusual occurrences and pinpointing the sources of pollution- with the ultimate goal of restoring and preserving the health of the Indian River Lagoon.

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## FINDINGS

**Glyphosate**, the active ingredient in Roundup and the world's most-used

herbicide, is used on lawns to kill turf grass and broadleaf weeds, as well as a means to control aquatic weeds. As part of our Pollution Mapping Citizen Science project, ORCA monitors glyphosate in both the water column and sediments throughout the IRL and connecting waterways.

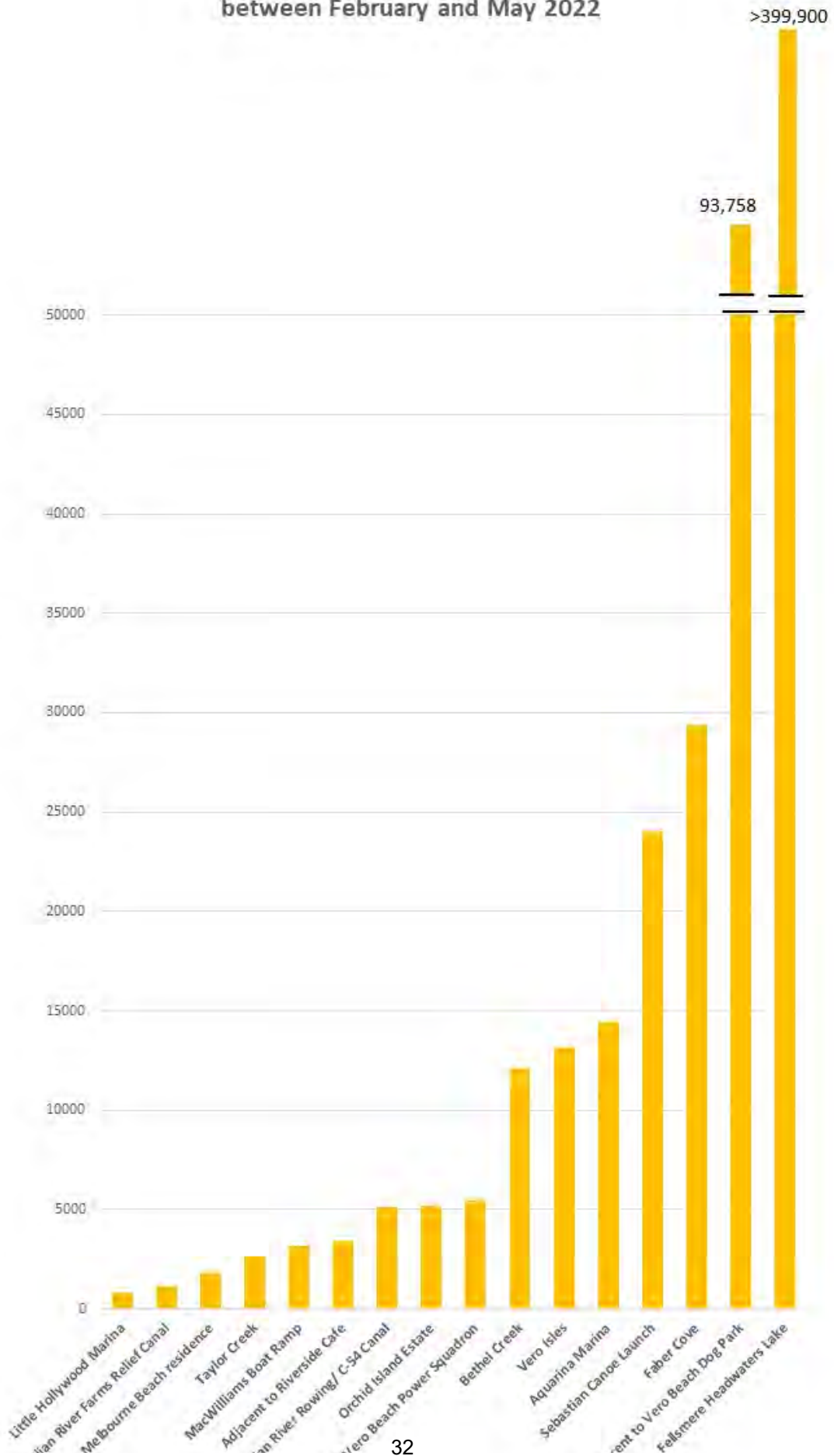
The table below shows average glyphosate concentrations in water column samples for 16 of our Pollution Mapping Citizen Science sample sites across four seasonal monitoring events (Nov. 2021, Feb. 2022, May 2022, Aug 2022). As you can see, all 16 sites peaked substantially from February to May, except Little Hollywood Marina. Fellsmere Headwaters Lake increasing from 0.12ppb to greater than 480ppb, from February to May, 2022. This is an increase of over 399,900% (Figure 2).

Sampling Site	County	November 2021	February 2022	May 2022	August 2022	Increase from February to May
Aquarina Marina	Brevard	0.28 ± 0.04	0.07 ± 0.01	10.20 ± 0.55	0.26 ± 0.01	146X
Melbourne Beach residence	Brevard	0.15 ± 0.04	0.09 ± 0.002	1.68 ± 0.17	0.28 ± 0.01	19X
Fellsmere Headwaters Lake	Brevard	1.48 ± 0.02	0.12 ± 0.004	>480.00*	7.37 ± 0.65	>2,380X
Indian River Rowing/ C-54 Canal	Brevard	0.2 ± 0.01	0.00 ± 0.00	51.09 ± 4.54	0.12 ± 0.05	51X
Little Hollywood Marina	Brevard	1.13 ± 0.005	0.32 ± 0.04	2.96 ± 0.61	6.24 ± 0.02	9X
Sebastian Canoe Launch	Indian River	0.10 ± 0.03	0.10 ± 0.02	24.12 ± 0.76	0.21 ± 0.06	254X
Orchid Island Estate	Indian River	0.14 ± 0.00	0.13 ± 0.01	6.83 ± 0.48	0.42 ± 0.01	53X
Bethel Creek	Indian River	0.34 ± 0.01	0.13 ± 0.002	15.83 ± 0.75	0.43 ± 0.03	121X
Adjacent to Vero Beach Dog Park	Indian River	0.54 ± 0.05	0.24 ± 0.004	225.26 ± 9.31	0.24 ± 0.04	939X
Adjacent to VB Power Squadron	Indian River	0.22 ± 0.04	0.24 ± 0.03	13.24 ± 0.85	0.37 ± 0.03	55X
MacWilliams Boat Ramp	Indian River	0.22 ± 0.01	0.37 ± 0.08	12.13 ± 0.62	0.41 ± 0.04	38X
Adjacent to Riverside Cafe	Indian River	0.18 ± 0.004	0.18 ± 0.002	6.35 ± 1.39	0.53 ± 0.01	35X
End of Indian River Farms Relief Canal	Indian River	0.94 ± 0.07	1.14 ± 0.01	13.89 ± 0.21	10.42 ± 1.22	12X
Vero Isles	Indian River	0.22 ± 0.01	0.14 ± 0.005	18.51 ± 2.84	1.12 ± 0.05	132X
Taylor Creek	St. Lucie	2.27 ± 0.31	1.61 ± 0.01	43.71 ± 4.12	0.73 ± 0.07	27X
Faber Cove	St. Lucie	0.15 ± 0.05	0.11 ± 0.02	32.42 ± 5.82	0.27 ± 0.03	294X

\*Sample requires further dilution so standard deviation can not be calculated at this time.

Figure 1. Average glyphosate (ppb) concentrations in water samples at 16 Pollution Mapping Citizen Science sampling locations during four independent monitoring events.

### Percent increase in Glyphosate between February and May 2022





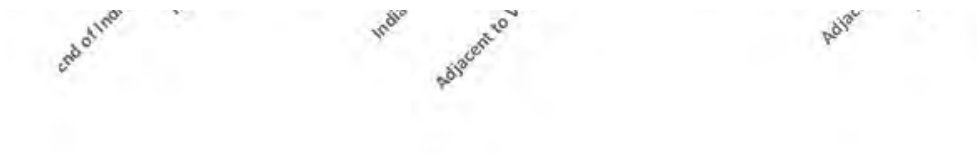


Figure 2. Percent increase in glyphosate between February and May of 2022.

According to the Internet, the best time of year to use weed killer is Spring. The idea is to catch weeds before they sprout. Based on ORCA's pollution mapping data, spring is when the active ingredient in many herbicides, glyphosate, is showing up in greatest quantities in our local waters. This is most apparent when you compare the quantity of glyphosate measured in February compared to May.

While we have consistently measured relatively low levels of glyphosate in the water column as part of our annual A Day in the Life of the Indian River Lagoon project and our Ecotoxicity program, this seasonal data illustrates the importance of longitudinal monitoring projects like Pollution Mapping Citizen Science, as it allows us to capture critical events such as these high concentrations of glyphosate in the Spring (May, 2022).

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**Phosphate (PO<sub>4</sub>)**, an essential nutrient for plants, is one of the main ingredients in fertilizers. While some phosphate is expected in the Indian River Lagoon, high levels from water runoff can lead [to harmful algal blooms, dead zones and fish kills](#). Florida has implemented fertilizer ordinances during the rainy season (May through October) as a way to help minimize the amount of fertilizer entering the water.

At this time, we do not see a significant difference ( $p=0.36458$ ) in water column phosphate levels between wet and dry season for all Pollution Mapping Citizen Science sites (sites include Indian River, Brevard and St Lucie Counties) from February 2020 through August 2022. We will have a better understanding of whether this trend remains constant or changes over time as we continue to monitor these sites. This emphasizes the value and importance of collecting longitudinal data for all Pollution Mapping Citizen Science sites.

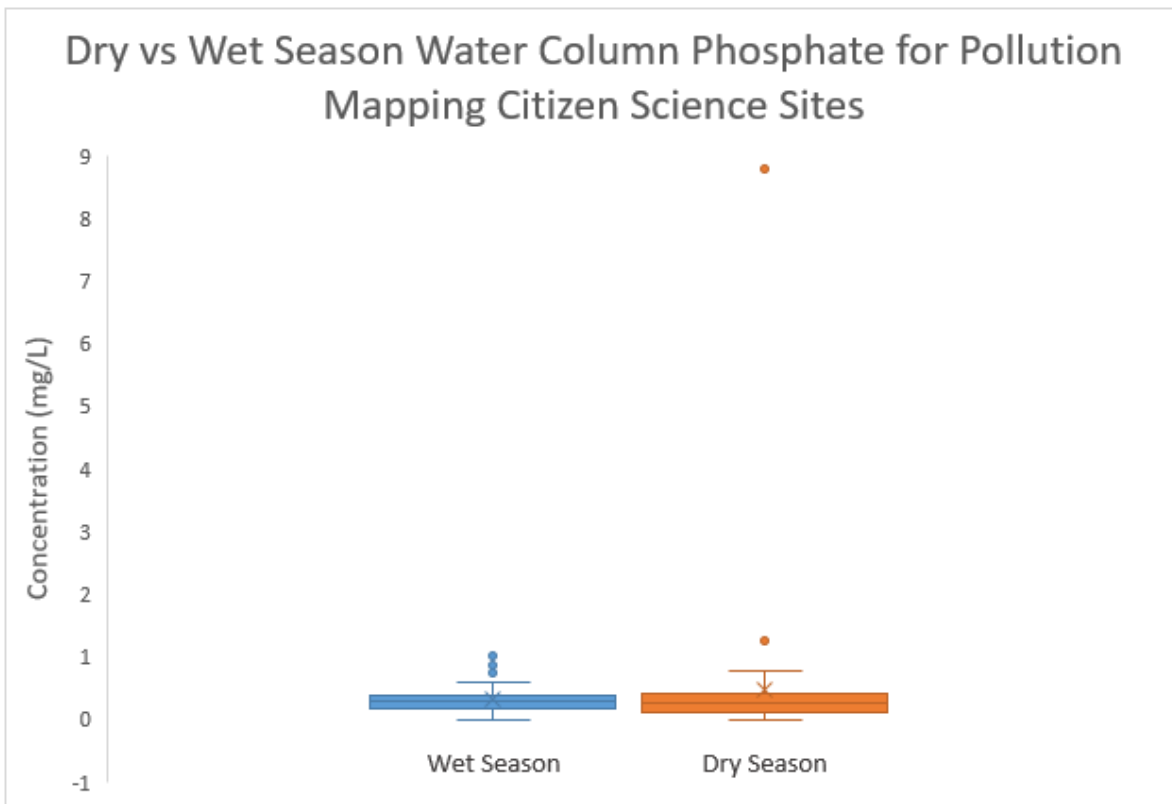


Figure 3: Dry vs wet season water column phosphate concentration (mg/L) for sites 1-16 from February 2020 through August 2022. There is no significant difference ( $p>0.05$ ) between dry and wet season water column phosphate levels.

Explore more data from [ORCA's Pollution Mapping Citizen Science Project here.](#)

Do you want to learn more? Join ORCA Research Assistant and project coordinator Veronica Cancio on October 26th at 6pm for an online presentation of findings to date for this project. [Register here.](#)

## THANK YOU!

This project would not be possible without support from these generous funders. Thank you Link Foundation, Frances Langford Fund of The Community Foundation Martin-St. Lucie, The John A. and Elizabeth F. Taylor Charitable Foundation, Phillip and Sandy Mills, The Schooner Foundation, Sunrise Rotary Vero Beach, and Walking Tree Brewery.