

PFS24-07 Lower Santa Fe River Springs Herbicide and Pesticide Study

PFS24 Protect Florida Springs Grants 2023-2024

Alachua County

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Application Form

Project Information

Project Title*

PFS24-07 Lower Santa Fe River Springs Herbicide and Pesticide Study

Summary of Project*

Please be concise, 4-6 sentences at most. Later in the application space is available to state the details of your proposal.

Herbicides and pesticides are widely known to have negative impacts on plant growth and macro-invertebrates; however, it is unknown to what extent these compounds are delivered in spring flows. Traditional quarterly sampling is not likely to capture pulse events. Intensive sample collection frequencies are needed to characterize exposure. Alachua County Environmental Protection Department (ACEPD) proposes to conduct a high frequency sampling of springs on the Santa Fe River to evaluate concentrations of herbicides within the springshed. Sample locations will include two Outstanding Florida Springs as well as additional spring locations on the Santa Fe River. Sampling frequency is planned bi-weekly for a period of two months during the winter wet season between February and April. This timing also coincides with winter crop rotations. Following the winter results, site selections will be refined based on detections, and will be re-sampled during a two-month period in the summer season.

Grant Funds Requested:*

\$20,000.00

Matching Funds:

Matching funds from *inside* the organization.

\$10,000.00

Explanation of Matching Funds:

ACEPD will commit \$10,000 in matching funds to the water quality analysis.

Matching Funds (other):

Matching funds from *outside* the organization.

\$0.00

Explanation of Matching Funds:

In-Kind Contributions (monetary value):

An in-kind contribution is a non-cash contribution of a good or a service. *State the cash value* of these items including estimated value of total volunteer hours.

\$7,520.00

Explanation of In-kind Contributions:

ACEPD staff will manage and implement this project. Staff will conduct all field activities as well as coordinate permissions and permit applications to access site locations on State Park and private property. Staff will prepare a final letter report. ACEPD estimates a value of an estimated 120 hours of a senior environmental specialist at a rate of \$36.00 per hour (salary and fringe) and 80 hours of a senior planner at a rate of \$40 per hour (salary and fringe). ACEPD staff will manage and implement this project. Staff will conduct all field activities as well as coordinate permissions and permit applications to access site locations on State Park and private property. Staff will prepare a final letter report. ACEPD estimates a value of an estimated 120 hours of a senior environmental specialist at a rate of \$36.00 per hour (salary and fringe) and 80 hours of a senior planner at a rate of \$40 per hour (salary and fringe)

Total Project Cost:*

\$37,520.00

Is this a continuation of an existing PFS grant or next phase of work on previous grant?*

NO

If YES, please list include the prior Grant ID Number (e.g. PFS1819-02)

Describe your long-term plan, if any, to further diversify your funding base.

Has the organization received a PFS Grant before? (other than previously mentioned)*

YES

If YES, please explain: When and for what? Please include Grant ID Number (s).

- PFS23-13 Freedom Lawns Social Marketing Behavior Change Campaign.
- PFS22-04 Fertilizer and Aquifer Actions Behavior Change Campaign.
- PFS22-20 Springs Protection and Manatee Monitoring through Citizen Science and Education.
- PFS21-06 Springs Behavior Change Videos.
- PFS1819-02 Santa Fe River Springs Submerged Aquatic Vegetation Project.
- PFS1819-05 Hornsby Springs Dissolved Oxygen and Faunal Study.
- PFS1819-11 Inspiring Behavior Change through Exploring the Santa Fe River and Springs.
- PFS1819-14 Santa Fe River and Springs Signage Project.
- PFS1617-05 Springs Protection Outreach Campaign.
- PFS1516-06 Agriculture and Springs Protection High School Curriculum, Field Trip, and Educator Short Course.
- PFS1415-01 Springs Protection Landscaping Behavior Campaign.
- PFS1415-03 Springs Protection Education Model.
- PFS1314-04 Economic Impact of Springs in the Santa Fe Basin.
- PFS1213-01 Springs Protection Stakeholder Research Phase II.
- PFS1112-02 Springs Protection Stakeholder Research.

Organization's Expertise:*

List experience, strengths, and competencies in springs conservation, research, and education.

- ACEPD has been involved in numerous springs conservation research and educational programs. Alachua County staff have been trained and approved by Florida Department of Environmental Protection for various environmental sampling techniques, including the collection of surface water samples for herbicides and pesticides. The project manager on this proposal has a Master's of Science degree with an emphasis on springs ecology.
- ACEPD is made up of a diverse team of professionals that includes several experienced research scientists. Additionally, we often partner with or contract with the faculty at the University of Florida. The department conducts water quality monitoring of surface water, groundwater, and wastewater treatment plants in the region, thus is very aware of current issues. Staff has implemented various restoration projects for springs and stormwater systems.
- ACEPD hosts quarterly Springs Protection Forums where government agencies, professionals, researchers, and the general public discuss local springs protection issues and solutions. Through this forum, professional conferences, and statewide meetings, staff stays current with springs issues and solutions and leads the way for other local governments.
- Previous Springs Tag Grants awarded to ACEPD have all been successfully implemented within budget.

Project Outcomes:*

Explain how the project will advance further conservation of Florida springs.

Herbicide and pesticide compounds are known to have a negative effect on aquatic species, particularly on important grass beds and macro-invertebrate species which are the base to springs ecology. The loss of SAV and macro-invertebrates may have important and negative implications for springs ecology. Sampling for herbicides and pesticides have been limited in both time and space. An intensive sampling in terms of frequency is needed to capture potential pulse events of herbicides and pesticides reaching spring discharges from within the springshed. This project will provide an important dataset documenting emerging pollutants that can be detrimental to spring ecosystems. Findings from this project will be shared at various public and agency meetings. Results help researchers and managers alike understand potential issues surrounding loss of submerged aquatic vegetation and macroinvertebrate communities. Understanding the background concentrations of herbicides and pesticides will have implications for the ecological health of Florida's springs. A report will document the findings of this research and be available on the Alachua County Environmental Protection Departments Website.

ACEPD has been involved in numerous springs conservation research and educational programs. Alachua County has worked diligently to better understand springs and springs ecosystems in the Santa Fe Basin. Findings from this study will be shared widely within the County Agency as well as outside the Department. Springs protection policies are adopted in the Alachua County Comprehensive Plan and implemented through Land Development regulations, including those protecting areas of high aquifer recharge where the Floridan aquifer is unconfined or poorly confined. Additional information and monitoring are needed to inform managers on potential impacts to spring ecosystems.

Springs have immense ecological and economic value to the state of Florida. A previous Springs Tag Grant (PFS 1415-03) estimated that over 275,000 visitors frequented the Santa Fe River and springs in the High Springs region in fiscal year 2012/2013. Degradation of springs through loss of SAV and conversion to algal dominated states diminishes recreational experiences. With this many visitors enjoying the springs and river, it is important to work towards improving the health of our springs and to explore the impacts chemical compound may have on the health of the ecosystems.

Results:*

Describe how the results will be measured. Are the results measurable, quantifiable, and qualitative?

ACEPD expects to have a large dataset of pesticide and herbicide analysis for springs on the Lower Santa Fe River by the completion of this project. All analysis will be performed by NELAC certified laboratories following state and federal guidelines for analysis. Results from the sampling are quantifiable and can be compared to previous quarterly sampling results from the Florida Springs Institute and the 2006 St. Johns River Water Management Report "Characterization of the Hydrology, Water Chemistry, and Aquatic Communities of Selected Springs in the St. Johns River Water Management District, Florida 2004." Chemical analysis for herbicides and pesticides will include OCP Method 8081, and Herbicide Method 8151. Atrazine and other pesticides will be analyzed by Organophosphorus Pesticide Method 8141, or by SVOC Method 8270. Glyphosate will be analyzed by EPA Method 547. Results will be summarized in a letter report and shared with various agencies.

Expected Outcomes applicable to other springs; Plan for disseminating results:*

ACEPD has a robust water quality program that has been recognized for excellence in their work on grants awarded from both state and federal dollars. The water quality program has experienced staff involved in educational and outreach programs, staff dedicated to collection and analysis of water quality data, and has good working relationships with prolific researchers at the University of Florida. The dedicated staff and partnerships that ACEPD has developed over the past thirty plus years speaks to the strengths and competency that this organization brings to the project. Given our past work and knowledge, ACEPD is in a unique position to evaluate herbicide concentrations in Springs on the Lower Santa Fe River.

This project will benefit springs across the state. Staff will present results at a future Santa Fe Springs Protection Forum, at the Florida Department of Environmental Protection Springs Basin Management Action Plan meetings, and at applicable regional conferences (Springs Working Groups, Florida Stormwater Association, Florida local environmental resource agencies, Florida Springs Summit, etc.). Results will also be published in ACEPD's newsletter and the final report will be shared widely with partners. ACEPD prides itself on being a leader in springs protection and is committed to promoting our work and assisting partners in extending the reach to additional regions.

Does this project have the potential to change minds and behaviors to benefit springs?*

This project has the potential to change minds and behaviors that may benefit springs. This study will illuminate the linkage between pesticides and herbicides usage on our lands in connection with our waters. Findings from this project may determine which herbicides and pesticides pose the greatest risk to spring ecosystems. Monitoring agencies may choose to adjust sampling frequencies and practices following the results of this project.

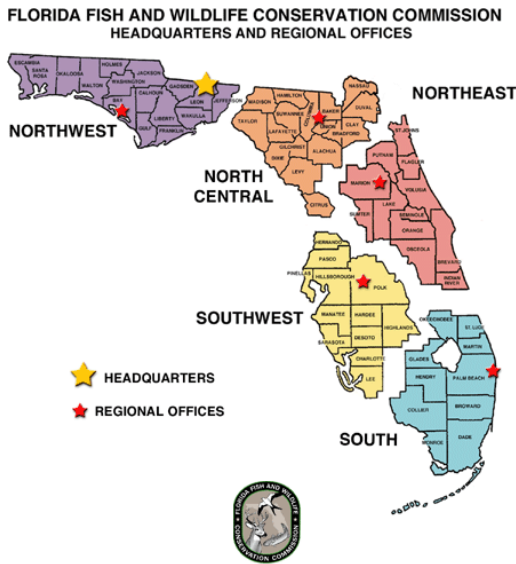
Possibilities:*

Does the project or its anticipated results have the potential to attract new funding, partners or on-the-ground conservation agreements?

ACEPD staff has had several conversations with researchers interested in herbicides and pesticide concentrations in Florida's springs, including a research lab at the University of Florida. It is possible that sample results from this study are used in a larger study evaluating pulse events occurring in Florida's springs. In addition to conversations with UF researchers, ACEPD continues to share our results at events such as the Water Symposium, Florida Stormwater Association Conference, Florida Department of Environmental Protection Basin Management Action Plan meetings, County Commission meetings, the Santa Fe Springs Protection Forum, and other stakeholder meetings.

Geographic Area Served*

Please select the region(s) of Florida your project will impact. More than one area can be checked.



North Central

Why are grant funds necessary?*

Alachua County provides an ongoing monitoring program to assess water quality spatially and temporally. There is currently limited funding available to focus on high frequency sampling and springs protection efforts. Grant funding allows ACEPD to complete intensive sampling analysis that otherwise would not be conducted.

Project time-frame:*

A project time-frame usually includes an intended start and finish date and lists all project related milestones, activities and deliverables.

- February – April 2024 – Sample bi-weekly for a two-month period
- April – May 2024 – Review sample results and adjust sampling plan to concentrate efforts on springs with highest detection concentrations
- June – August 2024 – Complete additional sampling of selected springs following winter results
- March 2025 - Submit Final Project Report and share results with partners across the State

Cooperating Partners:

NA

Financial: If awarded, how will the grant award be spent?

Salaries & Benefits:

\$0.00

Salaries and Benefits Details (please give an itemized list):

Contracted Services:

\$20,000.00

Contracted Services Details (please give an itemized list):

Water Quality Analysis. Samples will be analyzed through a NELAC certified laboratory.

Facilities & Equipment:

\$0.00

Facility and Equipment Details (please give an itemized list):

Travel:

\$0.00

Travel Details (please give an itemized list):

Supplies:

\$0.00

Supplies Details (please give itemized list):

Other Expenses:

\$0.00

Other Expenses Details (please give itemized list):

TOTAL*

Note: The total of the proposed spending categories in the project budget must equal Grant Funds Requested.

\$20,000.00

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FollowUp Form

Terms & Conditions

The Board of Directors of the Fish & Wildlife Foundation of Florida, Inc. (Foundation) is pleased to inform you that your Protect Florida Springs (PFS) tag grant request listed below has been approved for funding. Grant funds will become available October 1, 2023. This agreement details the responsibilities of the Fish & Wildlife Foundation of Florida and your organization ("Grantee"), and the terms and conditions of the 2024 Protect Florida Springs Grant that has been awarded to your organization.

Please note that the Foundation requires this agreement to be signed and submitted before any grant funds can be released.

Project Title

PFS24-07 Lower Santa Fe River Springs Herbicide and Pesticide Study

Amount Awarded

\$20,000.00

Grant ID:

PFS24-07

1. The project is limited to expenditures for goods or services as indicated in the proposal budget submitted in your Grant Application which is hereby incorporated into this Grant Agreement.

2. As project manager, it is your responsibility to contract for such goods and/or services that you require within scope of the Project Budget. Invoices must be sufficiently itemized so as to permit audit of charges incurred. Invoices submitted for payment must be signed by the project manager and submitted in a timely fashion. All vendors paid by the Foundation pursuant to this grant award must provide a completed W-9 to the Foundation at the time of the vendor's first invoice submission. Submit payments to the Foundation Grant Administrator, Anita Forester, either by email to aforester@wildlifeflorida.org or by ground delivery to:

Fish & Wildlife Foundation of Florida, Inc.
Post Office Box 11010
Tallahassee, FL 32302

3. Your grant number (Grant ID) MUST appear on all correspondence and paperwork related to this grant. Grantee may not and cannot pledge the Foundation's credit or make the Foundation a guarantor of any payment or surety for any contract, debt, obligation, lien, or any form of indebtedness.

4. Equipment purchased with grant funds becomes the property of your organization and must be labeled with tags "Donated by the Fish & Wildlife Foundation of Florida, Inc." where appropriate. Grantee is not permitted to act as a reseller of equipment purchased with grant funds. If property purchased with grant funds can no longer be used by the organization for the intended purpose outlined in the proposal, please contact the Fish & Wildlife Foundation of Florida Grants Administrator, Anita Forester, at aforester@wildlifeflorida.org.

5. The Foundation is a not-for-profit corporation and is tax-exempt [Federal ID # 59-3277808] [State of Florida

Consumer's Certificate of Exemption # 85-8012624063C-7]. Copies of appropriate documentation are available upon request.

6. Changes in the scope of work to the original Foundation approved grant project/program must be requested in writing through the Foundation grant administrator for consideration. You may not assign this agreement or the grant award to another person or organization. This agreement and the rights created by it are intended for the sole benefit of the Grantee, and no third party including any vendor recipients of grant award funds, have any rights under this Agreement. No third party may rely upon this Agreement or the rights and representations created by it for any purpose.

7. As the grantee, you have authority to shift grant funds within your approved budget up to five percent (5%) of your total grant award. You may not shift funds to create a new budget item. You may only shift funds to an item or items that already exist in the approved application. Requests for approval for fund shifts of more than five percent (5%) of the grant award total must be in writing to the Foundation Grant Administrator, Anita Forester, aforester@wildlifeflorida.org. Approvals of fund shifts in excess of five percent are at the sole discretion of the Foundation.

8. Each project is allowed a window of twelve months for completion. Your grant will become effective on **October 1, 2023**. Your expiration date is **September 30, 2024**.

9. The Foundation may contact you approximately six months after your project begins to gauge the progress and discuss any success or obstacles you may be encountering. In the event Grantee elects to terminate or abandon the Project before its completion, the Foundation reserves the right to obtain a refund from Grantee of grant award funds expended on the Project.

10. If you are not able to complete your project within the stated time frame, you may request a one-time-only extension of six months. The Foundation reserves the right to approve or deny any request for extension. If an extension is granted, no further extensions will be allowed. Before an extension is granted, the Foundation will require a progress report on the project.

11. The Foundation requires submission of a *final report* within three calendar months of project completion. All grantees are required to submit report through the Foundation's online grant management reporting tool. An auto reminder will be emailed with the log-in page as the deadline approaches. Reporting can be completed sooner by simply logging into the grant management system at your convenience.

12. The Foundation maintains a list on the Foundation's website of grant projects. This is intended as a positive public relations tool to showcase our grantees and their projects. To that end, the Foundation will request information on specific project locations, web links, photographs, video clips, etc. Providing this information is a condition of acceptance of this grant.

13. Grantee agrees to participate in media requests related to the project, including designated spokesperson speaking with media on the record and providing access to the project for photography/videography as appropriate.

14. Any unspent grant funds remaining at close of business on **December 31, 2024** will revert to the Foundation. Eligible Project expenditures incurred by grantee within the grant period (**October 1, 2023 - September 30, 2024**) must be submitted to the Foundation by this date. If an extension has been granted, unspent funds will revert 90 days after the new assigned end date. *Note: If these dates fall on a non-business day, then the next business day will substitute.*

15. The Fish & Wildlife Foundation of Florida, Inc. is providing the financial support for this project and expects recognition on any signage, publicity or printed materials related to the program/project. Note: Reasonable costs incurred to comply with this paragraph (signage printing, etc.) are an allowable grant expense.

a. For projects involving the creation of a poster, printed report, video, website or other such media product, please contact the Foundation's Director of Communications, Michelle Ashton, at mashton@wildlifeflorida.org to discuss the best way of acknowledging the Foundation's support.

b. When recognizing the grant project, please mention the following:

This research [or project, etc.] was funded with the help of the Fish & Wildlife Foundation of Florida via proceeds from the 'Protect Florida Springs' license plate.

c. If applicable, we will provide you with signage to post at project locations. You are required to send us a photo of the signage posted at the location.

d. In press releases and other media outreach, please include the following paragraph about the Fish & Wildlife Foundation of Florida:

This project is funded in part by a grant from the nonprofit Fish & Wildlife Foundation of Florida (FWFF) via proceeds from the 'Protect Florida Springs' license plate. Since its founding, the Foundation has raised and given away more than \$66 million for conservation, outdoor recreation and youth programs and camps. For more information, please visit www.wildlifeflorida.org.

e. The Foundation logo and the tag logo are available HERE for inclusion on any such recognition. The Foundation's logos are trademarks and servicemarks made available to grantee on a limited license basis, subject to the Foundation's instructions for use and publication, and without any grant of title or interest in the same. Grantee will retain all indicia of trademark ownership on all logos and will discontinue use of logos upon instruction from the Foundation.

f. The grantee will provide photographs or video footage created of the process and finished product. If creating this content is part of the grant award, grantee will provide all raw footage to the grantor.

g. For projects whose final product does not fit any of the above categories, the Foundation and the Grantee agree to negotiate in good faith to ensure that the Foundation and the Protect Florida Springs Tag grant program receive appropriate recognition. Refer any questions on this matter to the Foundation.

h. Grantee is an independent contractor and not an officer, employee agent, joint venture or partner of the Foundation. Grantee has no authority to bind the Foundation and will not represent to others such authority. Grantee remains solely responsible for its acts, conduct, expenses and that of its employees or agents. Grantee also remains solely responsible for the costs of its personnel carrying out the Project, including all applicable employee compensation and benefits, workers compensation insurance, and associated payroll tax withholding. All Project work shall be performed by or under the supervision of Grantee and its personnel or agents, and not by the Foundation. In no instance shall the Foundation be deemed the joint employer of any Grantee personnel, and Grantee will indemnify and hold the Foundation harmless in the event of any such claim.

16. The Foundation further requests 5 copies of any product that is produced in any tangible media of expression, (copyrighted) to be provided with the final project report. Please coordinate with the Foundation's Grant Administrator, Anita Forester, at aforester@wildlifeflorida.org.

17. The Foundation will receive a royalty-free, non-exclusive, perpetual unrestricted license to use and reproduce any and all books, manuals, films, photographs, designs, drawings, inventions, discoveries, or other copyrighted materials developed using Protect Florida Springs Tag funds. This will be for the Foundation's use in promoting its programs, sharing materials with government and non-profit partners. The Foundation will not sell or otherwise derive financial benefit from such copyright use. The Foundation asks to receive a copy of any copyrighted materials in a standard digital format upon the completion of the grant.

18. Grantee will be liable for and indemnify, defend, and hold the Foundation and all its directors, officers, employees, and agents harmless from all claims, suits, judgments, damages, expenses (including attorney's fees), arising out of any act or omission or neglect by Grantee and its agents, employees, and subcontractors in the performance of the Project. Grantee assumes all liability in the performance of the Project, and the Foundation's award of grant funds hereunder shall in no way constitute an assessment of the safety, engineering, feasibility,

legality or the like of the Project nor relieve Grantee of its sole liability therefor. Grantee remains solely responsible for complying with all applicable law (federal, state, and local) governing the Project.

19. The Foundation may request that you provide information, including video or photographs, for the Foundation’s publications or website describing the project and its impact. It may further request that a report on the project be presented to the Foundation Board of Directors.

20. Remaining grant balances are available in the online grant management system or by contacting the Foundation’s Grant Administrator, Anita Forester aforester@wildlifeflorida.org.

21. Acceptance of a Wildlife Foundation of Florida Tag License Plates grant is considered acceptance of state financial assistance as a subrecipient from the Department of Highway Safety and Motor Vehicles, , CSFA Number 76.103.

Entities receiving state financial assistance are required to follow the audit and accountability requirements for state projects as stated in Section 215.97, Florida Statutes, applicable rules of the Department of Financial Services, rules of the Auditor General, and requirements from the State Projects Compliance Supplement. Subrecipients, as a condition of receiving state financial assistance, must permit the independent auditor of the Fish & Wildlife Foundation of Florida, the Department of Highway Safety and Motor Vehicles, the Department of Financial Services, and the Auditor General access to the subrecipient’s records and the subrecipient’s independent auditor’s working papers as necessary to comply with Section 215.97, Florida Statutes. All records including original receipts must be kept for a minimum of three years beyond the project end date. We will be periodically reviewing projects and expenditures.

Acceptance of Terms & Conditions*

This grant is conditional upon Grantee’s acceptance of the terms and conditions set forth herein. By selecting the “I Accept Grant Terms and Conditions” below Grantee agrees to accept and comply with the stated terms and conditions of this grant.

Authorized Signature*

The electronic signature on this document of the person authorized to make legal contracts for Grantee will represent Grantee’s acceptance of this award and agreement to comply with the stated terms and conditions of this grant. Please signify your agreement to the foregoing terms and conditions by typing in your Name, Title, and Date in the spaces below. You must be an authorized officer of the Grantee duly empowered to make legal contracts for the Grantee. [The collaborate tool at the top of this page will allow you to share access to this document.](#)

Title* Michele Lieberman, County Manager

Date*

Additional Requirements

Thank you! We wish you all the best with your project.

Approved as to Form

Alachua County
Attorney