



## BOARD OF COUNTY COMMISSIONERS

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August 2, 2024

Florida Department of Environmental Protection  
Office of Resilience & Coastal Protection  
Florida Coastal Management Program

Re: Letter of Intent: FY24 Bipartisan Infrastructure Law Coastal Zone Management Habitat Protection and Restoration Competition

Dear Sir or Madam:

Hernando County is pleased to provide this Letter of Intent to the Florida Department of Environmental Protection for the FY2024 Bipartisan Infrastructure Law Coastal Zone Management Habitat Protection and Restoration Competition. Details of the proposed project are as follows, in accordance with Funding Opportunity No. NOAA-NOS-OCM-2024-27096.

- **CZM Program Name:** Florida Coastal Management Program
- **Name of Partner Organization to be the final Applicant:** Hernando County
- **Project Title:** Jenkins Creek Manatee Habitat Restoration
- **Type of Project:** Spring Habitat Restoration; Habitat Restoration Planning
- **Project Location (latitude and longitude coordinates):** Lat. 28°31'20.0" N; Long. 82°37'00.0" W
- **Names and Affiliations of the Lead Principal Investigator:** Carla Burrmann, Manager, Hernando County Environmentally Sensitive Lands and Waterways Programs
- **Proposed Project Start and End Dates:** Fall 2024 through Summer 2026
- **Total Federal Funding Request:** \$200,000.00

The detailed project proposal and maps are attached to this letter for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeffrey Rogers".

Jeffrey Rogers, P.E.  
Hernando County Administrator

Enclosure

# Letter of Intent Proposal: Jenkins Creek Manatee Habitat Restoration

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## Statement of Purpose:

The goal of this project is to improve warm-water wintering habitat for the Florida manatee (*Trichechus manatus latirostris*) thereby contributing to the long-term survival of this species. Manatees require warm water refuge when water temperatures drop below 20°C. Natural warm water habitat throughout the state of Florida has decreased because of development, and artificial warm water habitats from power plants are also decreasing. With warm water refugia sites diminishing, manatee populations are vulnerable to environmental change. By improving access to Jenkins Creek Spring, we will provide additional winter habitat for the manatee population in Hernando County, increasing resiliency to change.

## Brief Project Description:

Jenkins Creek Spring is a 2nd magnitude spring located in Linda Pedersen Park in Hernando County. The spring is connected to Jenkins Creek, a waterway that meanders approximately 2.5 km to the Gulf of Mexico. Due to its relatively short length, Jenkins Creek and access to Jenkins Creek Spring are tidally influenced. Jenkins Spring has been documented to accommodate around 40 manatees at a time during cold winter events (authors, unpublished). However, manatee access is limited by a narrow spring run clogged with woody debris obstacles. To reach the spring run, manatees must navigate through a shallow creek with eroding banks and a swimming area with sedimented beach sand. To address these issues, the proposed activities include: 1) clearing woody debris to allow unobstructed access for manatees to the warm water refuge, 2) regarding eroded banks, installing erosion control materials, and planting native vegetation, and 3) removing sediment within the waterbody due from the sedimentation from the public beach area and shoreline access. These restoration efforts aim to enhance the habitat and ensure Jenkins Spring can continue to serve as a vital warm water refuge for the manatee population, thereby improving their resilience to environmental changes and human impacts.

## Ecosystem

Jenkins Creek Spring and the adjacent Jenkins Creek run host a diverse and vibrant ecosystem. The surrounding upland hammock gradually transitions into a saltmarsh ecosystem as it flows toward the Gulf of Mexico. Near the spring, the landscape is dominated by leather ferns, salt bush, and cabbage palms. Moving downstream, the vegetation shifts to include cedar trees, black needle rush, cabbage palms, smooth cordgrass, and mangroves. The submerged aquatic vegetation supports a variety fish and wildlife, and the waters along the creek are frequented by schools of mullet, redfish, manatees, and numerous bird species.

## Resilience

Natural springs face an uncertain future due to reduced outflows from groundwater withdraws, loss of forage resources, and climate variations. Improving access to the Jenkins Creek Spring will provide additional winter habitat for the manatees, increasing their resilience to environmental changes by removing obstacles that can cause entrapment and providing a forage source through restoration plantings.

Restoring Jenkins Creek Spring and the Jenkins Creek Spring run offers numerous benefits to the local community. It creates educational opportunities for schools and environmental groups, promoting awareness and appreciation of manatee conservation and the importance of healthy springs. Additionally,

improved access and restored shorelines can attract eco-tourism, supporting local businesses and boosting economy through increased visitation and job creation within the underserved communities of coastal Hernando County.

This project also enhances the health and well-being of residents by improving park facilities and natural spaces, encouraging responsible and educational outdoor activities, and fostering a healthier lifestyle. Community engagement in restoration activities can strengthen community bonds and promote a culture of conservation and sustainability, creating a sense of pride and stewardship among local residents.

## Milestones

- Completion of feasibility study.
- Identify activities need to restore habitat for manatees.
- Complete restoration activities.
- Design, construct, and install educational station along park boardwalk.
- Monitor activities and document manatee usage.
- Identify future steps to ensure area continues to function as a viable warm water habitat for manatees.

## Equity and Inclusion

The Jenkins Creek improvements will not only benefit the manatee population but will also provide ancillary benefits to Hernando County residents. Parks have been proven to increase mental, physical and environmental health for residents, especially low-income residents with limited access to health-related activities. Parks and green spaces increase physical activity, helping to reduce overweight and obesity and reducing the risk of disease. This habitat restoration project can serve as a catalyst project for increased physical activity for Hernando County residents. Additionally, parks improve social connections and increase social unity and promote child development. Lastly, parks assist with leveling the social playing field, providing opportunities for residents of all income levels to benefit from the ecosystem within the County (Lisa W. Foderaro and Will Klein, 2023). The Jenkins Creek improvements also provide an opportunity to increase resident awareness of its benefits to the manatee population and create a better understanding of the ecological benefits of the Environmentally Sensitive Lands Program, while creating a healthier population.

## Climate

With warm water refuge sites decreasing, manatee populations are currently vulnerable to change. Improving access to this spring will provide additional winter habitat for the manatee population and will therefore increase population resilience to change.

## Site Geography

The Jenkins Creek Spring is approximately 1/8 mile east of Jenkins Creek Park within Linda Pedersen Park on Shoal Line Blvd in Spring Hill, Florida. The specific location is latitude 28°31'20.0" N and longitude 82°37'00.0" W. The park includes natural freshwater springs, man-made canals, coastal marshes, uplands, and waterways leading to the Gulf of Mexico.

## Landowner

Hernando County; Parcel ID R06 423 17 0000 0010 0000.

## Pre-Existing Uses

Linda Pedersen Park occupies 65 acres with 12 developed acres. It offers picnic pavilions, tables, a kayak launch, playground, restrooms, and lookout tower. Swimming is permitted in the bayou, and showers are available. There is a large sandy beach area (that does not extend into the water) available for sunbathing.

The 40-foot-tall lookout tower at Linda Pederson Park provides a great view of upland hammocks and the nearby Weeki Wachee Preserve to the southeast, as well as an expansive view of Jenkins Creek as it flows into the Gulf of Mexico. There is trail access into Weeki Wachee Preserve for hikers and off-road bikers.

All amenities described above will be available after completion of the habitat restoration project.

## Partnerships

The Fish and Wildlife Research Institute (FWRI) and Information Science and Management (ISM) have secured legislative funding for a small-scale feasibility study. This study will include bathymetry, temperature characterization, tidal flux assessment, a slope survey of the spring run area, and a model of winter characteristics under various enhancement scenarios.

The University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Extension Hernando County and the Florida Sea Grant program will support the project by developing content for interactive educational signs along the boardwalk, growing native plants for restoration, and coordinating volunteer efforts for planting.

Hernando County will secure a consultant to design and engineer restoration activities, provide a detailed cost analysis, and identify all required permitting.

## Project Timeline

FWRI and ISM will begin their study Fall 2024. The County will select a consultant once funds have been secured for the proposed project. The goal is to have a feasibility study completed within 6 months of receiving funding.

Project Activity	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026
Feasibility study (bathymetry, tidal flux, winter modeling)	X	X				
Restoration planning		X	X			
Design & permitting			x			
Educational signage development and installation			X	X		
Plantings started in nursery at Extension Office			X	X		
Restoration activities				X	X	
Monitoring						X

Table 1: Project Timeline

## Budget summary

The County is requesting \$200,000 to conduct a feasibility study that will determine what actions and methods are appropriate for manatee access improvement to Jenkins Spring along with habitat restoration of the area to provide a greater foraging source. Hernando County plans to provide both cash

and in-kind support for this project, likely in the permitting and construction phases; however, cash for future fiscal year spending has not yet been allocated. The UF/IFAS Extension and Florida Sea Grant will provide support through volunteer restoration events, donation of manatee use data towards the feasibility study, and funding for the educational area signage.

The County also recently improved the swimming area with a boardwalk, which will prevent the public from walking down the shoreline and further eroding the embankment. The County plans to add additional plants for shoreline stabilization there, which will be in-kind match.

FY	Activities	LOI Funding	Other Funding	Other Entity(s)	Funding Type (in-kind and/or cash)
2023-2024	Swimming area access improvements	\$0.00	\$50,000.00	Hernando County	Cash <sup>1</sup>
2024-2025	Feasibility study	\$100,000.00	\$10,000.00	Hernando County	In-kind
2025	Design and permitting	\$50,000.00	TBD	Hernando County	Cash, in-kind
2025-2026	Restoration Activities	\$50,000.00	TBD	Hernando County	Cash, in-kind

Table 2: Project Budget

## Project Readiness

Hernando County is partnering with FWC and UF/IFAS Extension to assess, identify, and address activities needed to restore Jenkins Creek Spring run area to a functioning warm water refuge for manatees. FWC has received funding to conduct data collection which will include bathymetry, temperature characterization, tidal flux characterization, a slope survey of just the spring run area, and a model of winter characteristics under various enhancement scenarios. Hernando County would like to conduct a large-scale feasibility study on the area noted (in green) in Figure 2 to expand upon the data collected by FWC. This will allow the agencies to expand knowledge of the critical area as well as conduction habitat restoration. Also, UF/IFAS has pre-existing manatee data that details the importance of this area (to manatees).

The feasibility study will not require a permit however the restoration activities will require state and federal authorization. Neither of which have been secured to date. It is anticipated that Hernando County will be able to utilize a pre-approved construction services contractor to conduct the feasibility study and provide restoration design plans. Permit applications will be submitted by County staff.

## References

Lisa W. Foderaro and Will Klein. (2023). *The Power of Parks to Promote Health: A Special Report*. Los Angeles, California: Trust for Public Land .

<sup>1</sup> Cash match not yet allocated in budget



# Maps: Jenkins Creek Manatee Habitat Restoration



Figure 1: Property Ownership



Figure 2: Feasibility Study Area<sup>2</sup>

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<sup>2</sup> \*Red circles indicate areas of restriction due to debris and/or sediment accumulation.