



# LEVY COUNTY REQUEST FOR PROPOSAL FOR SUWANNEE SOUND/CEDAR KEY OYSTER RESTORATION

## **SUBMITTED TO**

LEVY COUNTY PROCUREMENT  
DEPARTMENT  
318 MONGO STREET, ROOM C  
BRONSON, FL 32621  
Submitted via DemandStar Portal

RFP\_2025\_002  
April 10, 2025

## **SUBMITTED BY**

SWCA Environmental Consultants  
521 NE 1st Street  
Gainesville, Florida 32601

**LEVY COUNTY BOARD OF COUNTY COMMISSIONERS****P.O. BOX 310****BRONSON, FL 32621****PHONE: (352) 486-5218 EXT. 2****FAX: (352) 486-5167****EMAIL: [LEVYBOCC@LEVYCOUNTY.ORG](mailto:LEVYBOCC@LEVYCOUNTY.ORG)****COVER PAGE****RFP\_2025\_002-SUWANNEE SOUND/CEDAR KEY OYSTER RESTORATION****LAST DAY FOR QUESTIONS: Wednesday, April 9, 2025****LAST DAY FOR QUESTIONS: Wednesday, April 9, 2025**

**SUMMARY OF SCOPE:** The County is soliciting sealed proposals to restore the oyster reef habitat and support ecosystem services along the coast of Levy County, Florida from qualified, experienced consultant(s).

**SUBMITTAL OF BID:** Levy County only accepts electronic submittals through "E-Bidding" on the DemandStar platform [www.DemandStar.com](http://www.DemandStar.com). In order to submit a bid in response to this solicitation the bidder must be registered with DemandStar.

For questions relating to this proposal, contact Brooke Smith, Grant Coordinator at [smith-brooke@levycounty.org](mailto:smith-brooke@levycounty.org).

**ITEMS THAT MUST BE INCLUDED WITH PROPOSAL:** Submitting an incomplete document may deem the proposal non-responsive, causing rejection. Please check each box for each item submitted with the proposal. Before submitting my proposal, I have verified that all forms are attached and are considered as part of my proposal:

- ☒ COVER PAGE
- ☒ COMPLETED RESPONSE SIGNATURE FORM
- ☒ CONFLICT OF INTEREST DISCLOSURE STATEMENT
- ☒ DRUG-FREE WORKPLACE FORM
- ☒ NON-COLLUSION AFFIDAVIT
- ☒ SWORN STATEMENT ON PUBLIC ENTITY CRIME
- ☒ CONTRACT EXCEPTION FORM (DUE DURING QUESTION PERIOD)
- ☒ VENDORS ON SCRUTINIZED COMPANIES LIST
- ☒ ANTI-HUMAN TRAFFICKING AFFIDAVIT
- ☒ BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION
- ☒ VENDOR INFORMATION SHEET
- ☒ W9 FORM
- ☒ STATEMENT OF PROPOSER'S FINANCIAL STABILITY
- ☒ STATEMENT OF PROPOSER'S LITIGATION HISTORY
- ☒ COPIES OF CERTIFICATIONS/LICENSES
- ☒ CERTIFICATE OF INSURABILITY (AS NOTED IN PART 3 ARTICLE 13)

Company Name: SWCA Environmental ConsultantsName: David CrawleyAddress: 521 NE 1st St., Gainesville, Florida 32601

Mailing Address (if Different): \_\_\_\_\_

Email (Required): david.crawley@swca.comTelephone: 813.421.9432FEIN: 86-0483317

By signing this form, I acknowledge I have read and understand, and my firm complies with all General Conditions and requirements set forth herein:

**SIGNATURE OF AUTHORIZED REPRESENTATIVE:** \_\_\_\_\_**DATE SUBMITTED:** 4/10/25**THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL****RFP\_2025\_002****SUWANNEE SOUND/CEDAR KEY OYSTER RESTORATION**

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## TAB 1: INTRODUCTORY LETTER







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Gainesville, Florida 32601  
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## TAB 1: INTRODUCTORY LETTER

April 10, 2025

Levy County Board of County Commissioners  
Levy County Procurement Department  
318 Mongo Street, Room C  
Bronson, Florida 32621  
*Submitted via DemandStar*

**Re: Suwannee Sound/Cedar Key Oyster  
Restoration / RFP No. 2025\_002**

Dear Levy County Board of County Commissioners:

SWCA Environmental Consultants, in partnership with C.A. Boone Construction Inc. and Neetly Organized Bookkeeping and Tax Services, are writing to express our strong interest in partnering with Levy County to restore oyster reef habitat and support ecosystem services along your coastline. Our group brings over 15 years of place-based research and oyster restoration experience in the Big Bend region—culminating in the successful completion of Florida’s largest oyster restoration project at Lone Cabbage Reef (LCR) in Suwannee Sound. This proposal, made in good faith and free from collusion or fraud, includes all components of the Request for Proposal (RFP), detailing the qualifications of our dedicated staff, who are complemented with over 40 full-time Florida team members, proof of liability insurance, along with any litigation and disputes within the last five years; staff qualifications; an organizational chart introducing you to your nimble restoration team and outlining each team members experience; current and past clients including past performance; approach and methods; and all of the requested forms listed in part 4 of the RFP. Below, we highlight key elements of our proposal:

### Proven Track Record of Success

- LCR restoration (2009–2018 research and experiments, 2018-2024 restoration and monitoring): Project PI Dr. Bill Pine co-led teams that worked with CA Boone Construction and built approximately 5 kilometers (3 miles) of intertidal reef using locally sourced dolomite limestone, raising the elevation by an average of 0.36 meters (m). Within months, oyster spat settlement occurred, and oyster density rose significantly—from approximately 11 to 222 oysters/m<sup>2</sup> within five years, in contrast to static or declining densities on unrestored reefs. LCR now supports commercial oyster harvests both directly on the restored reef and in adjacent waters, whereas previously, the reef was highly degraded and did not support commercial harvests. This project was completed cooperatively with members of the Cedar Key Aquaculture Association, who assisted with site selection, portions of the restoration, and oyster and water quality monitoring for five years after project completion. Our proposed project builds on this successful prior collaboration.

**Full Legal Name:** SWCA, Incorporated

**Company Type:** S-Corporation

**Physical & Mailing Address:** 521 NE 1<sup>st</sup> St.,  
Gainesville, FL 32601

**Primary Point of Contact:** Bill Pine, (352) 225-  
1643, bill.pine@swca.com

**100% Employee Owned**

- **Quantifiable Economic Benefits:** An economic analysis of the restoration of LCR demonstrated that the regional economic multiplier of the project was 1.45; thus, for every \$1 spent on the project, an additional \$.45 in economic benefit was experienced by the local economy. We anticipate our proposed project will have at least the same multiplier; therefore, by using our proven restoration techniques, employing local labor, and using local materials, we anticipate an additional economic benefit to the Levy County region of \$2,175,000 in addition to the \$1,500,000 grant costs. In simplest terms, through our proposed cooperative restoration project, we anticipate a total short-term economic benefit to the Levy County region of \$3,675,000, plus the long-term economic benefit of commercial fishery harvests and ecosystem benefits associated with oyster reef restoration, including fish and wildlife habitat, improvements in water quality, and reduced wave action.

### **Lessons Learned & Evidence-Based Approach**

- **Cultch Thresholds Matter:** Recent research we led in Suwannee Sound identified a critical cultch mass (~20 kg/m<sup>3</sup>) below which oyster recruitment is negligible, leading reefs toward collapse. Our site selection and design will specifically target reefs below this threshold, ensuring restoration efforts are directed to areas unlikely to recover naturally without intervention.
- **Elevation Is Critical:** Extensive research conducted by our team and others has demonstrated that constructing reefs to an elevation of 0.3–0.4 m, which mirrors healthy natural reefs, results in oyster densities four times higher than lower-relief designs. Elevation profiles of healthy oyster reefs in targeted restoration areas will guide our restoration elevation goals.
- **Adaptive Management:** Our structured adaptive management framework enables real-time project adjustments, informed by ongoing monitoring and assessments, enhancing project efficiency and ecological outcomes.

### **Proposed Project Advantages**

- **Community Co-Management and Employment:** We will partner with the Cedar Key Oystermen's Association and employ local oyster harvesters in restoration activities such as cultch placement, ecological monitoring, and project verification, providing valuable employment opportunities during seasonal harvest closures. Our proposed project uniquely reverses the traditional commercial oyster fishery by employing oyster harvesters as restoration specialists, thereby directly compensating harvesters for their expertise and labor during summer months when wild oyster harvesting is prohibited. Restoration materials for our projects are locally sourced (within the Suwannee River watershed), and our material suppliers and employees, including truck drivers and equipment operators, are all residents of the region. Other key project tasks, including bookkeeping (Neetly Organized Bookkeeping, Chiefland, Florida) and community organizers, will all be local employees. Most of the project technical staff also live < 120 miles from the project site.
- **Rapid Restoration Impact:** By prioritizing critical gap protection and targeted restoration of degraded reef areas identified in collaboration with the Cedar Key Oystermen's Association, we expect measurable improvements in oyster density within 12 months following construction and legal-sized oysters within 2–4 years.
- **Cost-Effective Design:** Leveraging our established restoration approach and experience, we are confident we will meet or exceed restoration goals within the allocated \$1.5 million budget, thus maximizing ecological and economic returns on investment.



- **Commitment to Transparency & Sustainability:** All data, analyses, and final deliverables will be publicly accessible via open-source platforms to foster transparency and build community trust. Regular quarterly progress dashboards and community stakeholder meetings will ensure accountability, engagement, and the flexibility to adapt restoration practices swiftly in response to monitoring insights.

In summary, our team has demonstrated the capability to reverse significant oyster reef degradation at scale, transforming depleted reefs into resilient and productive ecosystems. By applying proven methodologies—including targeted cultch mass thresholds, strategic elevation design, and adaptive management frameworks—we are confident in delivering substantial ecological and socioeconomic benefits to Levy County's coastal communities.

Thank you for considering our proposal. We look forward to the opportunity to collaborate.

Please contact me at (352) 225-1643 or [bill.pine@swca.com](mailto:bill.pine@swca.com) if you have any questions regarding this proposal.

Sincerely,

A handwritten signature in cursive script that reads "William E. Pine, III".

Dr. William E. Pine, III  
Project Principal Investigator



A photograph of a person from behind, wearing an orange t-shirt and a tan baseball cap. The person is looking over a rocky riverbank towards a river that flows through a wooded area. The t-shirt has the SWCA logo and text on the back. The background shows a river with some rapids, surrounded by trees and vegetation. A large, semi-transparent 'SWCA' logo is overlaid on the left side of the image.

## TAB 2: CONSULTANT'S EXPERIENCE / PAST PERFORMANCE

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## TAB 2: CONSULTANTS EXPERIENCE & PAST PERFORMANCE

### KEY PERSONNEL

#### STAFF ROLES & EXPERTISE

**Dr. Bill Pine** will serve as the Principal Investigator and project lead and will handle the design and coordination of all project elements. Dr. Pine has conducted oyster research and oyster restoration work in Suwannee Sound since 2010. He will coordinate with the Cedar Key Oystermen's Association and Levy County on key project design elements, such as site locations and desired future condition of the restored sites, seek input from permitting authorities on the feasibility of restoration at these locations, finalize design elements, work with Levy County to apply for permits, and coordinate with suppliers and the community to implement the restoration program. After restoration is completed, Dr. Pine will work with Levy County to complete monitoring efforts to meet permitting requirements. Information on project progress will be conveyed through local meetings and coordination with UF/IFAS Extension Agent and Florida SeaGrant.

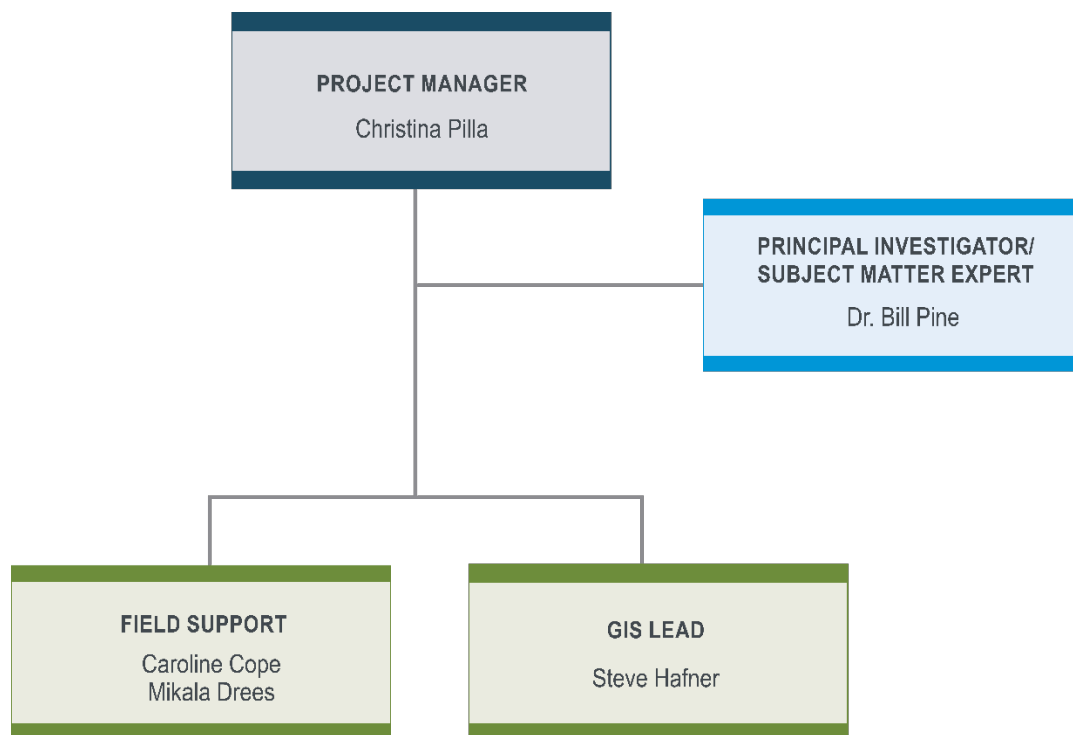
**Christina Pilla** will serve as the project manager and will be responsible for managing the contract and coordinating the day-to-day with the project team. Christina resides in Tampa and has over 10 years of experience managing permitting and compliance of large-scale restoration projects across Florida and the SE U.S., including work with the Florida Fish and Wildlife Conservation Commission (FWC), the Florida Department of Environmental Protection (FDEP), and numerous federal agencies. Christina brings a detailed-oriented approach to coordinating with the County, our subcontractors, and other associated partners. Coupled with her educational, professional, and field experience with wildlife, coastal, and terrestrial ecology throughout ecosystems of Florida makes her a strong project manager for this restoration project.

**Steve Hafner** will serve as our geospatial lead and will be responsible for all the data management and map creation associated with the restoration. Steve addresses cartographic and data analysis needs and works closely with the field teams and managers assigned to various projects. Steve has over 10 years of combined experience in geographic data analysis and environmental compliance and regulation with the U.S. Environmental Protection Agency (EPA) - Gulf Ecology Division, environmental consulting groups, and the FDEP. He has a B.S. in Marine Biology and a Graduate Certificate in Geographic Information Sciences, both obtained from the University of West Florida in Pensacola. He has additional experience in water resources, the National Pollutant Discharge Elimination System (NPDES), stormwater management and regulation, and the Safe Drinking Water Act for public water systems.

**Caroline Cope** will serve as a field lead during the planning, construction, and post construction restoration phases of the project. She is a field-oriented biologist with 6 years of experience in the fields of coastal protection and restoration, marine science, marine navigation, stream assessments, threatened & endangered species, and wetland delineations. Captain Cope has compiled a diverse environmental portfolio by employing her knowledge of coastal and marine management, performing biological impact studies, and applying her expertise in field methods on projects for a broad range of clients: National Oceanic and Atmospheric Administration (NOAA); National Marine Fisheries (NMFS); Department of Environmental Protection (DEP); Department of Environmental Quality (DEQ); U.S. Army Corps of Engineers (USACE); Port of Houston; the State of Texas.

**Mikala Drees** will serve as a field biologist assisting with the pre and post construction monitoring. She is a natural resources Assistant Project Biologist for SWCA's Gulf Coast Region. Mikala is involved in energy development projects as a field lead for wetland and waterbody delineations, threatened and endangered species, and stream assessments. In this role, Mikala leads the field surveys as well as the associated reporting efforts, including wetland delineation reports, threatened and endangered species assessments, and critical issues analysis. Additionally, Mikala will be part of the monitoring crew once the construction is complete.

## ORGANIZATIONAL CHART



## PRIMARY CONTACT

DAILY TASKS	CONTRACTUAL OBLIGATIONS
Christina Pilla, Project Manager	David Crawley, Office Director
<a href="mailto:Christina.pilla@swca.com">Christina.pilla@swca.com</a>	<a href="mailto:David.crawley@swca.com">David.crawley@swca.com</a>
267-313.0043	281-617-3217

## SUBCONTRACTOR INFORMATION

### *CA Boone Construction Inc.*

**James F. Boone, Director, C. A. Boone Construction**

*P.O. Box 3236  
Lake City, Florida 32056  
386-752-0270  
[Caboone@isgroup.net](mailto:Caboone@isgroup.net)*



Established in 1970, C.A. Boone Construction employs 25 people providing construction services for clients, including the State of Florida, county, and local governments with a focal area in the Big Bend region. C. A. Boone Construction provides a range of construction services, including site preparation for commercial development, roadways, aggregate mining and trucking, and commercial surveying for a wide variety of private and public sector clients. C. A. Boone provided materials, equipment, and technical expertise in completing the LCR restoration project. C.A. Boone is fully bonded and insured.

### ***Bookkeeper***

#### **Janet Hudor, Owner Neetly Organized Bookkeeping and Tax Services**

##### ***Sole Proprietorship***

**1011 NW 17<sup>th</sup> Avenue, Chiefland, Florida 32626**

***Hudorj@bellsouth.net***

Established in 2008 and servicing clients for 17 years, Neetly Organized Bookkeeping and Tax Services provides financial support to more than 140 tax clients, six corporations, and four non-profits in the Levy County area. More than 70% of their clients are involved in the commercial seafood industry. Services provided include individual and business tax preparation, tax filing, articles of incorporation, and payroll services. Owner Janet Hudor will support our efforts on this project.

## **PAST PERFORMANCE**

Our project Principal Investigator, Dr. Bill Pine, has a long history of working in this region with the Cedar Key Oystermen's Association (CKOA) and our subcontractors on previous successful restoration projects.

The SWCA project team has proven experience in Levy County demonstrated by the successful completion of the LCR restoration (2009–2024 entire project period), the largest successful restoration project in Florida. Our Project Principal Investigator, Dr. Bill Pine, led the team that included our subcontractor, C.A. Boone Construction, and members of the CKOA, that built approximately 5 km (3 miles) of intertidal reef using locally sourced dolomite limestone, raising elevation by an average of 0.36 m. Within months, oyster spat settlement occurred, and oyster density rose significantly—from approximately 11 to 222 oysters/m<sup>2</sup> within five years, in contrast to static or declining densities on unrestored reefs. LCR now supports commercial oyster harvest both directly on the restored reef and in adjacent waters, whereas previously, the reef was highly degraded and did not support commercial harvests. This project was completed cooperatively with members of the CKOA, who assisted with site selection, portions of the restoration, and oyster and water quality monitoring for five years after project completion. Our proposed project builds on this successful prior collaboration.

Through past project work in Levy County, our project team has been able to show that these types of projects lead to quantifiable economic benefits. An economic analysis of the restoration of LCR demonstrated that the regional economic multiplier of the project was 1.45; thus, for every \$1 spent on the project, an additional \$.45 in economic benefit was experienced by the local economy. We anticipate our proposed project will have at least the same multiplier; therefore, using our proven restoration techniques, employing local labor, and using local materials, we anticipate an additional economic benefit to the Levy County region of \$2,175,000 in addition to the \$1,500,000 grant costs. In simplest terms, through our proposed cooperative restoration project, we anticipate a total short-term economic benefit to the Levy County region of \$3,675,000, plus the long-term economic benefit of commercial fishery harvests and ecosystem benefits associated with oyster reef restoration, including fish and wildlife habitat and improvements in water quality and reduced wave action.

Our project team will use lessons learned from the previous restoration work in the County to develop our Evidence-Based Approach to the restoration work. We have found from the Lone Cabbage restoration work that cultch

thresholds matter. Recent research in Suwannee Sound identified a critical cultch mass ( $\sim 20 \text{ kg/m}^3$ ) below which oyster recruitment is negligible, leading reefs toward collapse. Our site selection and design will specifically target reefs below this threshold, ensuring restoration efforts are directed to areas unlikely to recover naturally without intervention.

Along with cultch threshold, elevation of the constructed reefs is also critical. Extensive research by our team and others has demonstrated that constructing reefs to an elevation of 0.3–0.4 m, which mirrors healthy natural reefs in Suwannee Sound, results in oyster densities four times higher than lower-relief designs. Elevation profiles of healthy oyster reefs in targeted restoration areas will guide our restoration elevation goals. Understanding the required elevation is important because this determines the height of reefs to build, the footprint of the restored reef, and, ultimately, the amount of material required for each reef. Oyster reef designs that focus simply on the reef area and do not include elevation in their planning have not been successful across Florida, including in Pensacola, St. Andrew, and Apalachicola Bays.

Lastly, we will use adaptive management: Our structured adaptive management framework allows for real-time project adjustments, informed by ongoing monitoring and assessments, enhancing project efficiency and ecological outcomes.

Our project team offers numerous proposed project advantages that set us apart. First and most important is the way we will use the local community members to co-manage the project through employment: We will partner with the CKOA and employ local oyster harvesters in restoration activities such as cultch placement, ecological monitoring, and project verification, providing valuable employment opportunities during seasonal oyster harvest closures. Our proposed project uniquely reverses the traditional commercial oyster fishery by employing oyster harvesters as restoration specialists, thereby directly compensating harvesters for their expertise and labor during summer months when wild oyster harvesting is prohibited. Our project restoration materials are locally sourced (within the Suwannee River watershed), and our material suppliers and employees, including truck drivers and equipment operators, are all residents of the region. Other key project tasks, including bookkeeping and community organizers, will all be done by local employees. Most of the project technical staff also live <120 miles from the project site.

- **Rapid Restoration Impact:** By prioritizing critical gap protection and targeted restoration of degraded reef areas identified in collaboration with the CKOA, we expect measurable improvement in oyster density within 12 months following construction and legal-sized oysters within 2–4 years.
- **Cost-Effective Design:** Leveraging our established restoration approach and experience, we are confident we will meet or exceed restoration goals within the allocated \$1.5 million budget, thereby maximizing ecological and economic returns on investment.
- **Commitment to Transparency & Sustainability:** All data, analyses, and final deliverables will be publicly accessible via open-source platforms to foster transparency and community trust. Regular quarterly progress dashboards and community stakeholder meetings will ensure accountability, engagement, and the flexibility to adapt restoration practices swiftly in response to monitoring insights.



A small, fluffy grey and white bird is perched on a thin, light-colored branch. Its wings are raised, showing dark feathers on the underside. The bird has a dark eye and a small beak. The background is a soft-focus green, suggesting foliage. A large, semi-transparent watermark of the letters 'KUP' is visible across the image.

## TAB 3: APPROACH TO WORK



## TAB 3: APPROACH TO WORK

The SWCA team proposes to lead community-based restoration efforts that integrate local knowledge, materials, and labor to successfully enhance degraded oyster reefs in coastal Levy County, Florida. At the most basic level, this project will provide short-term economic benefits by sourcing local materials and labor to restore degraded oyster reefs. The materials and methods we are proposing were used successfully to restore the degraded LCR in Suwannee Sound (2019-2024). At a secondary level, this project will provide ecosystem and fishery benefits through the recovery of degraded oyster reefs. Recovered oyster reefs will provide suitable habitat for oyster larvae settlement and oyster growth, supporting commercial harvest, providing habitat for commercial and recreationally important finfish, and protecting shorelines by reducing wave energy. At a tertiary level, this project will demonstrate to regional, State, and Federal partners that community-led restoration efforts can work at a meaningful scale to provide economic and fishery benefits to people in Levy County and the Big Bend region of Florida.

Our project is conceptually straightforward: by collaborating closely with the CKOA and other local commercial oyster harvesters, we will deliver economic, ecological, and long-term capacity-building benefits to Levy County through an innovative restoration initiative. Uniquely, our project employs local oyster harvesters as oyster restoration specialists, reversing traditional oyster harvesting practices. Instead of harvesting oysters, local oyster workers will receive direct payments for their involvement in restoration activities conducted during summer months when wild oyster harvesting is closed by regulation. At every project stage, we will utilize local suppliers, labor, and technical expertise—including sourcing rock materials, transportation, bookkeeping, and restoration design—to ensure community-led efforts simultaneously benefit local economies and ecosystem health.

Furthermore, our approach to managing our teaming partners on large restoration efforts, like the one proposed here, closely mirrors our project management approach. Our teaming partners are an integral part of the SWCA Team and to successfully manage and integrate strengths of the team, we assign clear roles and responsibilities, articulate schedule expectations, and maintain ongoing communication throughout the life of the project. This ensures that we all have the same goals and objectives from the start so that any issues or unforeseen delays are tackled early in the project allowing for completion of the project on schedule and on budget. SWCA has an extensive quality program that defines our project process and provides quality assurance and quality control measures at each step of the restoration and reporting phases of the project.

Traditional oyster fishing involves the removal of oysters (meat and shell) from the water, gradually depleting the required oyster reef substrate known as "cultch," where oyster larvae settle and grow into adults. Over 15 years of research demonstrates that the loss of this substrate is the primary cause of oyster reef collapse in Florida's Big Bend region (Frederick et al. 2016; Pine et al., in-review; Supplemental Materials; Seavey et al. 2011). Our studies also indicate that adding locally sourced dolomite limestone from a quarry near Branford effectively restores degraded oyster reefs, enabling recovery of live oyster density to healthy "wild" oyster reef conditions within 3-5 years (Pine et al. in-review).

The effectiveness of our restoration methods is demonstrated by the LCR project in Suwannee Sound, Florida's largest successful oyster reef restoration effort, which occurred in phases from 2009-2024 and was co-led by Dr. Bill Pine. Our current proposal expands on these proven techniques implemented by Dr. Pine by uniquely positioning local oyster harvesters as leaders in restoration. In our proposed work, instead of relying on heavy machinery operated from barges, to complete the restoration as done on Lone Cabbage, local commercial oyster harvesters will transport and manually place restoration materials directly onto degraded reefs, employing the harvesters to work as oyster restoration specialists.

SWCA is committed to providing quality technical work, deliverables, and solutions to agencies and clients and to ensuring that our deliverables and services meet or exceed client and regulatory requirements. Our quality commitment aligns with SWCA's mission to partner with agencies and clients to help them achieve their goals through the application of sound science and creative solutions.

This project strategically targets restoration during the summer months (May-September) when wild oyster harvesting is prohibited, and other employment opportunities for commercial oyster harvesters are limited. Harvesters will earn daily wages comparable to typical harvesting income, generally moving between 2-4 cubic yards of restoration material per day. These restoration efforts will provide direct benefit via employment to complete restoration and will provide income via oyster harvests within 2-4 years following restoration. Other ecosystem benefits, including enhancing recreational fishing habitat, reducing wave action, and improving water quality are also expected from restoring degraded oyster reefs.

Members of the CKOA will perform essential restoration tasks, ensuring active participation from a local community with expert knowledge. Working in all phases of the project including site selection, these harvesters offer critical local knowledge (such as tides, locations, and logistics), essential equipment (skiffs, culling boards), and technical skills (vessel operation and material placement). While partnering with CKOA members is encouraged, the association remains inclusive and open to all community members interested in participating.

Historically, commercial oyster fishing in Levy, Taylor, and Dixie Counties averaged about 2,000 trips annually, with recent peaks of around 8,000 trips per year between 2017 and 2019, before returning about 2,000 trips per year in recent years (<https://tinyurl.com/y2hk9c6x>). During a typical 4–6-month harvesting season, oyster fishing removes about 4,000–8,000 cubic yards of substrate material. Our project aims to counteract this depletion by employing oyster harvesters to relocate approximately 3,000 cubic yards of cultch material back onto oyster reefs.

Our restoration initiative offers immediate employment and promotes long-term ecological resilience by establishing durable reefs resistant to substrate loss from harvesting activities. Employing harvesters as restoration specialists builds local workforce capacity, diversifies employment opportunities, and prepares the community to engage in future oyster restoration projects across the state. Ultimately, this project strengthens Levy County's socioeconomic resilience by supporting its culturally significant "working waterfront" and providing sustainable economic and ecological benefits (Olander et al. 2020).



**Figure 1. Commercial oyster fishing fleet assisting with Lone Cabbage Reef restoration, in Suwannee Sound, Florida.**

## PARTNERSHIPS

A key community partnership will be formalized with the CKOA, a Florida not-for-profit corporation led by Mr. Jerald Beckham. The CKOA is a non-governmental association of commercial oyster harvesters in the region whose members work in the commercial oyster industry within the Big Bend region. Project PI William Pine has worked with members of the CKOA on collaborative oyster restoration and monitoring projects since 2010.



Levy County governmental partnerships will be essential for successful project completion. We anticipate working closely with the County Manager to facilitate information to the Levy County Commissioners. We also will work closely with different Levy County Departments including Economic Development, Grants Department, Parks and Recreation, Road Department, and Visitors Bureau. These partnerships will be necessary to complete the proposed work, such as coordinating with the Road Department related to transportation and staging of construction materials. Partnerships with the Grants, Visitors, and Parks and Recreation departments could facilitate new proposals for future work building on the success of the current project.

State Partners include statutory agencies, including the Florida Department of Environmental Management, the FWC, and the Florida Department of Agriculture and Consumer Services. This is because oysters are managed by different agencies based on whether they are considered a habitat feature, a commercially harvested species, or are sold within commercial markets as a food product. Regulatory responsibility falls to different Divisions within each of these agencies. We have successfully navigated the permitting process for oyster work in Suwannee Sound as demonstrated by permits that were secured for the LCR restoration that were co-authored by W. Pine and issued to the University of Florida (see Supplemental Materials).

Federal partnerships for work in the region include statutory reporting and coordination with NOAA related to species and habitats of conservation concern, which include Smalltooth Sawfish and Gulf Sturgeon, both ESA-listed species whose critical habitats include waters adjacent to Levy County. NOAA's concerns related to oyster reef restoration in Suwannee Sound were addressed during the permitting process for LCR (see Supplemental Materials). A key point is that our proposed actions restore a degraded habitat within the ESA-listed critical habitat for these species using naturally occurring materials (dolomite limestone) which, in discussions with NOAA staff, alleviated some concerns over impacts to critical habitat for listed species. The USFWS Lower Suwannee and Cedar Keys National Wildlife Refuges are near all three proposed regions listed in the RFP (Suwannee Sound [SS], Cedar Key [CK], Waccasassa Bay [WB]). Consultations with the US Coast Guard and the USACE are also likely required for project completion.

Described below is how our project team will complete the scope of work to plan, design and perform the oyster restoration activities:

***1. Describe the current condition (pre-project assessments) of oyster resources and oyster reef habitat in the project area; including oyster population assessments on specific project sites, mapping restoration sites, and photo-documentation.***

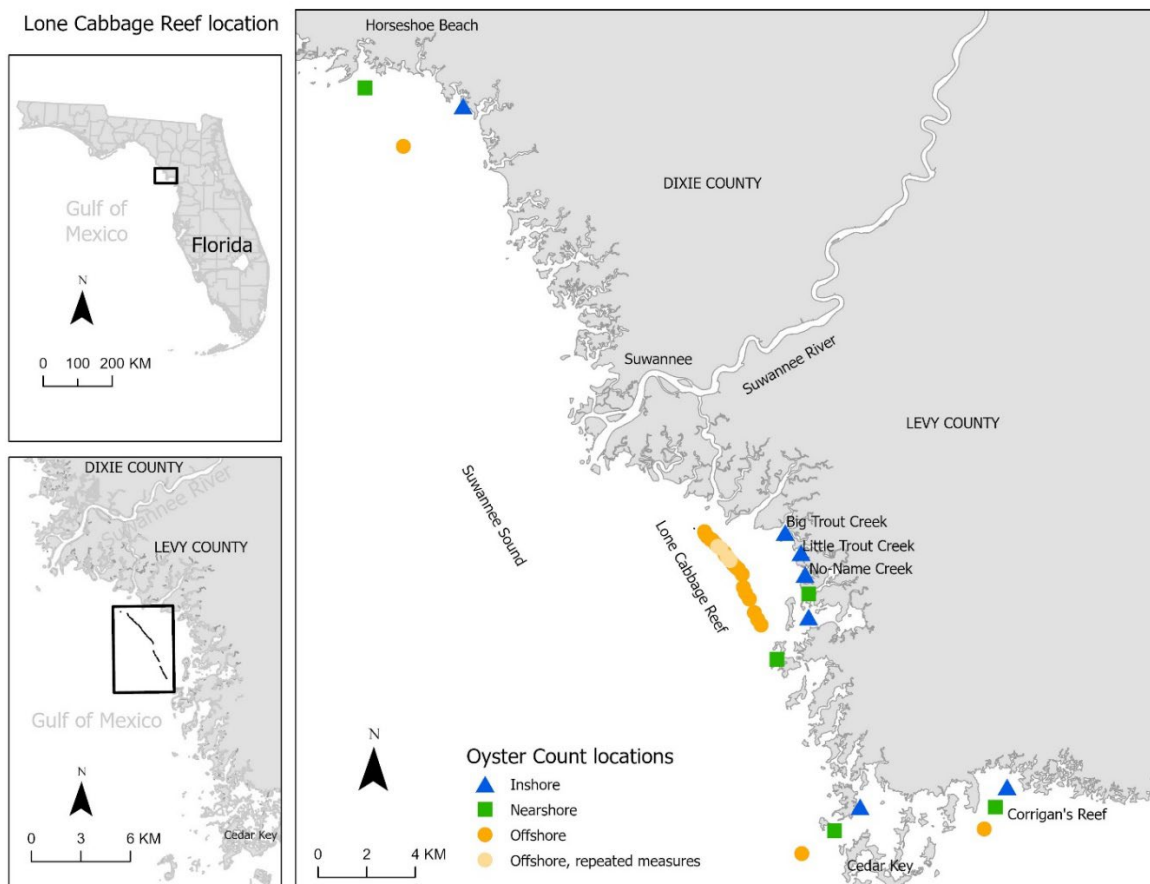
We propose to describe the current condition (pre-project assessment) of oyster resources and oyster reef habitat in the project area using established oyster population and oyster reef assessment methods developed and used in this area since 2010 (see detailed documents in Supplemental Materials). The exact method used for assessing oyster resources or oyster reef habitat could vary depending on final site selections in each of the three areas identified in the RFP. A general description is as follows:

First, maps of the proposed area will be generated using the best available information on existing oyster distributions from the FWC and the "Oyster Beds in Florida" repository (<https://ocean.floridamarine.org/OIMMP/>). Data layers describing commercial fishing status (open, conditional, or closed) will be integrated into the available maps of live oyster reefs. Within the three regions of the project area (SS, CK, WB), 3-5 possible restoration sites will be identified in each region on the maps based on input from the CKOA.

Oyster population assessment – After narrowing the list of possible sites with input from the CKOA, 15-30 stations will be randomly chosen, and site-occupancy methods will be used to assess the presence of oyster cultch, sublegal, and legal oysters (Rogers 2024, see Supplemental Material). A commercial oyster harvester will be employed to assist with all field sampling. At each site, three samples will be collected to inform the occupancy model using either tongs or quadrats and key covariates to inform restoration planning such as depth, substrate, and distance to known live

oyster bar recorded. Photos will be taken of each site and of at least one sample per site. The resulting information will provide a probabilistic estimate of each potential restoration site containing cultch, live sublegal, and legal oysters. This information will be added to the existing map layers to graphically represent cultch, sublegal, and legal oyster probability of occurrence. These samples will also provide information on live oyster density (oyster/m<sup>2</sup>) using swept area calculations, quadrat samples, or line transects depending on water depth and time of year. Based on information from LCR restoration, low density oyster reefs suitable for restoration will have < 11 live oysters/m<sup>2</sup> of reef area. Reefs with higher live oyster density will be a lower priority for restoration. This information will be integrated into the maps of each location, and the maps will be integrated with the photo library.

Oyster reef habitat assessment – Using information from the site occupancy models, live oyster counts, and the existing live oyster data with the FWC GIS, we will assess oyster reef habitat and suitability for restoration by estimating cultch mass from a fixed area. Casteel et al. (in-review; see Supplemental Material) surveyed wild (unrestored) oyster bars in Suwannee Sound and identified a critical threshold of about 20 kg/m<sup>3</sup> of cultch mass below which oyster recruitment was essentially zero. Results from Casteel et al. suggest that at these very low cultch mass levels, these locations are unlikely to recover to healthy oyster bars. We will use similar methods as Casteel et al. (in-review) to estimate cultch mass at 5-10 stations in each area that are identified from the site-occupancy work as having low probability of oyster cultch. Photo documentation will be made of at least one sample at each location. Identifying stations that are currently below the minimum cultch mass level of 20 kg/m<sup>3</sup> as possible restoration sites ensures restoration is done on locations that do not currently have sufficient cultch to recover to a healthy oyster bar.



**Figure 2: Study area for the Lone Cabbage Reef restoration project.**

Lone Cabbage Reef Location

Gulf of Mexico

Florida

0 100 200 KM

N

DIXIE COUNTY

LEVY COUNTY

Lone Cabbage Reef

Gulf of Mexico

0 3 6 KM

N

Cedar Key

Shellfish Harvest Areas

Harvest Status

- Conditional but Prohibited in Winter
- Conditionally Approved
- Prohibited

1 2 3 4 5 6 7 8a 8b 9a 9b 10a 10b 11a 11b 12 13 14 15 16 17 18 19 20 21 22

Lone Cabbage Reef

Prohibited

Big Trout Creek

LEVY COUNTY

Little Trout Creek

No-Name Creek

Prohibited

Conditionally Approved

Conditional but Prohibited in Winter

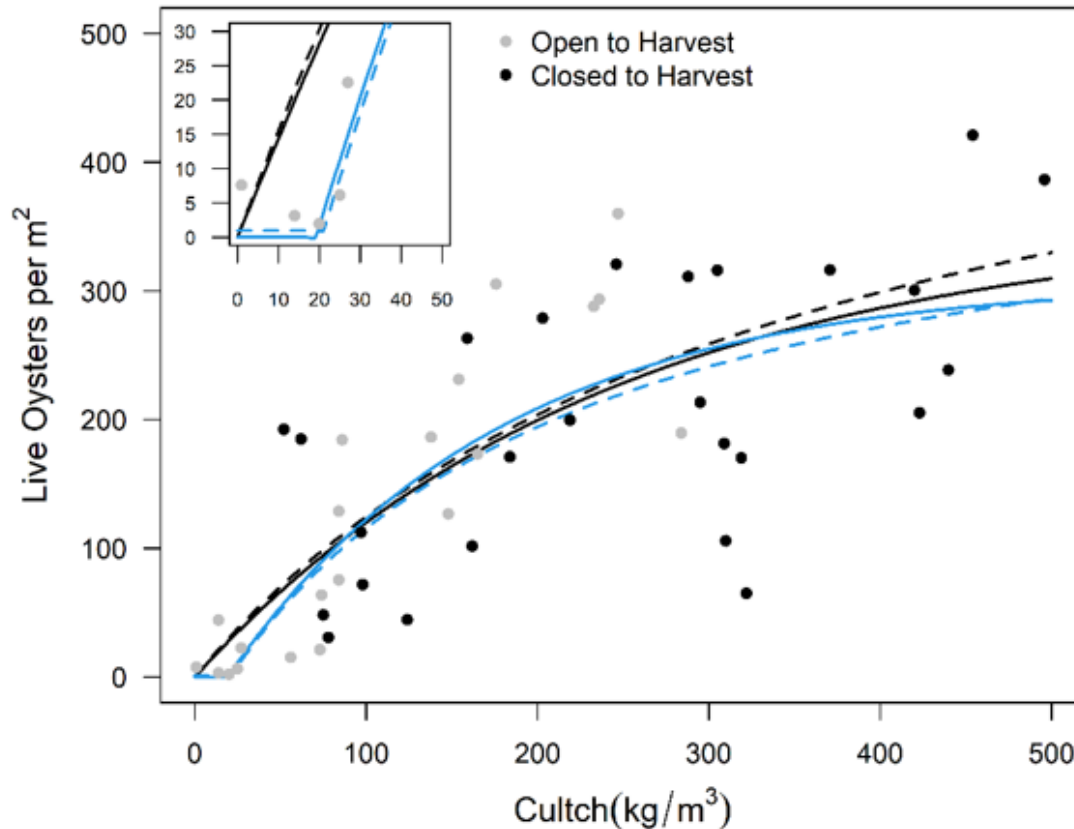
Prohibited

0 0.4 0.8 KM

N

**Figure 3. Map of Suwannee Sound demonstrating the different spatial and seasonal restrictions on oyster harvesting in one of the proposed restoration areas. The map also shows the location of the 22 pieces of the Lone Cabbage Reef restoration project. About 66% of the Lone Cabbage project was in areas closed to commercial harvest and about 34% was in areas open to commercial harvest. Map created by Joe Aufmuth, University of Florida.**





**Figure 4.** This figure demonstrates the relationship between the mass of oyster cultch (x-axis) and live oyster density (y-axis) from oyster reefs sampled in Suwannee Sound. The key point is that at low cultch mass levels, oyster recruitment approaches zero. The lines on the graph are different statistical models fit to the data (circles) that are used to describe the relationship between cultch and live oysters. The key take home message is that below about 20 kg/m<sup>3</sup> of cultch, the number of live oysters approaches zero. This helps us to determine that oyster reefs with cultch less than this threshold are good candidates for restoration. Details of this figure are in the Supplemental Files, Casteel et al. in-review manuscript.

We will then rank possible restoration sites within each area, with the highest rank given to sites with a low probability of oyster cultch and live oysters from the occupancy model, cultch mass of < 20 kg/m<sup>3</sup>, and live oyster density < 11 live oysters/m<sup>2</sup>. We recognize that cultch mass estimates represent multiple oyster reef characteristics, including settlement area for oyster larvae and elevation. The cultch mass measurements will be used to inform decisions of where to do restoration by restoring degraded sites that are not likely to recover without intervention (Casteel et al. in-review and Pine et al. in-review, supplemental material).

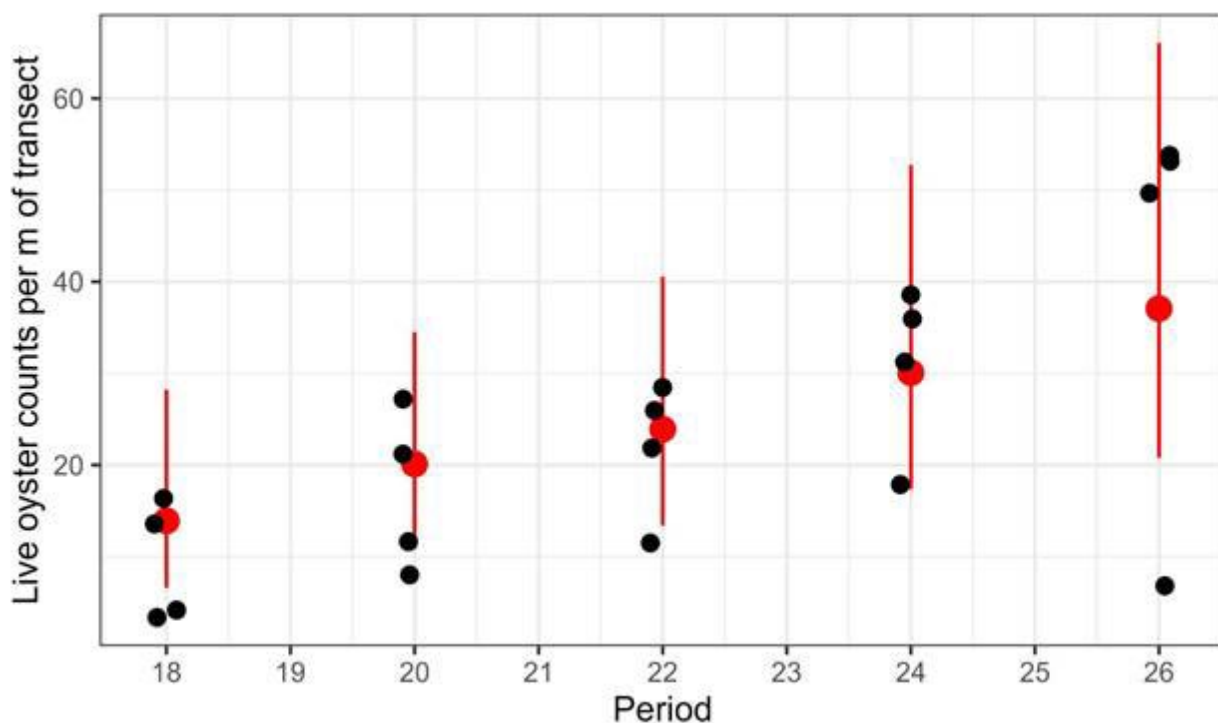
## **2. Develop protocols for assessing oyster resources (including population and habitat) and apply these assessments to:**

### **a. Identify damaged oyster reef habitat where rehabilitation activities will be performed;**

We will identify damaged oyster reef habitat where rehabilitation will occur using methods in Casteel et al. (in-review), which identify a threshold of cultch material < 20 kg/m<sup>3</sup> as a tipping point below which oyster recruitment is not likely to occur. We will use line-transect, quadrat, or swept area calculations using tongs to identify live oyster counts per m<sup>2</sup> and will characterize damaged oyster habitat as oyster reefs with <10 oysters/m<sup>2</sup> as an initial reference point based on the pre-restoration oyster density observed at LCR (Pine et al. in-review, see Supplemental Material).

**b. Assess success of subsequent restoration. This should include both extant oyster populations as well as structural habitat, which includes more than living oyster populations.**

Based on our previous restoration experience with LCR, if restoration is completed in summer, we anticipate observing oyster spat settlement on restored oyster reefs within 12 months of project completion. We will assess restoration success using multiple lines of inference including site occupancy approaches to estimate the probability of oysters occurring at a site before and after restoration (Rogers 2024). We will also monitor changes in oyster densities over time using standard line transect methods (Moore et al. 2020; Pine et al in-review) or swept area calculations using tongs (for deeper sites). Structural habitat will be characterized in the same way by counting dead oysters (oyster shells) which will track cultch accumulation. We will also explore ways to establish low-cost elevation benchmarks as a reference point to assess reef subsidence.



**Figure 5: Results of oyster counts per meter of transect (y-axis) on the restored Lone Cabbage Reef, Suwannee Sound, Florida, over time (x-axis). Time is labeled as period, which were annual time steps beginning in winter 2018-2019 (period 18) and ending in winter 2023-2024 (period 26). Construction of the reef was completed in the summer of 2018 (period 17), and the oyster reef would have had zero oysters per meter of transect at the end of construction. Oyster spat were counted during the first winter following construction and in each subsequent year of monitoring following construction. This demonstrates that (1) oyster larvae are available in Suwannee Sound, (2) the dolomite limestone is suitable cultch, and (3) oysters colonized, survived, and accumulated over time at the restored reef.**

**3. Conduct feasibility studies to determine restoration sites, potentially including donor and recipient reefs.**

The idea of donor and recipient reefs generally applies to the practice of restoring degraded by relaying oysters from areas with high oyster population abundance, but closed to harvest, to low oyster density areas that are open to harvest. While this practice was common in Levy County waters from the 1970s to the early 2000s, regulations appear to have changed in the last five years related to this practice. Currently, relaying of oysters to enhance wild oyster populations is no longer allowed by Florida statute. According to the Florida Department of Agriculture and

Consumer Services Shellfish Control Code 5L-1.009 Shellfish Relaying section, oysters from aquaculture operations are the only shellfish that are allowed to be relayed. Specifically, administrative guideline 5L-1.009(c) specifies that relayed aquaculture produced shellfish can only be delivered directly to designated aquaculture lease areas. Thus, it does not appear that relay is a restoration option from an administrative perspective.

Determine factors such as accessibility, availability of nearby seed stocks, population parameters, extent of damage, and potential for success before selecting specific reefs for restoration. It should be noted that there is evidence to suggest that the greatest return on investment comes from restoring sufficient structural habitat (e.g., rock or other large and durable materials).

Site selection is a critical step in restoration planning and will involve input from Levy County and the CKOA for each project area—Suwannee Sound (SS), CK, and WB identified in the RFP. This input will be critical to inform the accessibility of each site for small boat-based restoration efforts. Each of these project areas may have unique restoration goals reflecting local environmental and community needs.

Our previous research efforts near Corrigan's Reef, Cedar Key, Suwannee Sound, and Horseshoe Beach documented large declines in oyster reefs in these areas over the last 30 years, with about 66% of the "offshore" oyster bars lost. Additional research projects (Frederick et al. 2016; Aufmuth et al. in-review; Pine et al. in-review) documented that all these locations are cultch, and not larvae limited (Moore et al. 2020). This suggests that the larval supply of oysters is likely adequate in each region; thus, restoration efforts should focus on adding substrate (cultch) for oyster larvae to settle and grow. Critically, recognizing that these reefs are not larvae limited means that we do not have to purchase seed oysters to colonize depleted reefs. Instead, our restoration work can focus on placing durable cultch material as replacement cultch. This restoration effort will build on our LCR experience, which documented that locally available dolomite limestone, which occurs naturally in coastal Levy County, is a suitable natural cultch material. This material can be obtained from local quarries, broken to irregular size and shape to maximize surface area for larvae settlement, and then placed on degraded oyster reefs as replacement cultch material. This restoration approach was used successfully to restore approximately 5 km (3 miles) of LCR in Suwannee Sound (Frederick et al. 2016; Pine et al. in-press).

Restoration approaches in the three study areas identified in the RFP (SS, CK, WB) could follow a similar approach of using local limestone to enhance the degraded reefs by applying new cultch material. For instance, in Waccasassa Bay (shellfish harvest area 3202), oyster reefs typically form linear chains parallel to the shoreline, and water movement through these reef chains is essential for oyster reef health and sustainability in this area. Water exchange through natural gaps between individual oyster reefs within these chains delivers essential nutrients and plankton, the primary food sources for oysters. If these natural gaps become blocked, nutrient-rich water cannot reach oyster reefs closer to the shore, negatively affecting oyster growth and reef persistence over a larger area. In Waccasassa Bay, oyster reefs that have degraded tend to lose elevation, causing reef material—primarily composed of small shell fragments—to slump into the natural gaps. This sedimentation alters water flow patterns. According to Jerald Beckham, President of the CKOA, this reduction in water flow has noticeably decreased oyster growth rates on Corrigan's Reef.

A potential restoration strategy for Waccasassa Bay includes selecting key natural gaps within the Corrigan's Reef complex and enhancing small, naturally occurring oyster reefs on either side of these gaps using locally sourced limestone cultch. Limestone cultch (discussed below) provides foundational structure critical for oyster colonization and reef stability. Enhancing these reefs at gap edges can prevent reef material from collapsing into the gaps, thus maintaining water flow and benefiting nearby oyster bars through improved nutrient delivery. Protecting Corrigan's Reef as a viable harvest area is especially significant because other major oyster harvesting sites near the Suwannee River close during periods of high river discharge due to elevated nutrient contamination from upstream. Corrigan's Reef, unaffected by these nutrient influx events, remains open for harvesting, providing a harvest area for commercial oyster fishermen during periods of high river flow.



Restoration strategies for Cedar Key and Suwannee Sound could differ from those used in Waccasassa Bay. Instead of focusing on restoring gap habitats, these project areas might emphasize restoring and enhancing oyster reefs that historically supported productive commercial fishing but have since declined, likely due to the loss of cultch material. For example, degraded reefs near Cedar Key, such as those near Pelican Reef (shellfish harvest area 3001), could be enhanced using limestone cultch. This approach would create stable "harvest reefs" from which oysters could be sustainably harvested adjacent to the limestone substrate. Because limestone is durable and not removed during harvesting, the presence of this stable substrate reduces the risk of reef collapse. A similar harvest reef strategy could also be applied in Suwannee Sound, specifically in areas conditionally approved for shellfish harvesting (e.g., area 2802). Establishing reefs in locations classified as approved or conditionally approved would diversify restoration efforts across areas with varying harvest classifications.

**4. Determine the best methods for restoring oyster population and reef habitat based on biological, environmental, ecological, and operational parameters specific to individual reefs. The proposed methods should accommodate procedures for adaptive management to identify when management changes should be triggered. Delivery of rocks and cultch and re-seeding activities will be performed at locations where natural oyster reproduction, growth and survival are limited. Degraded reefs will be re-seeded with juvenile stocks or rehabilitated by depositing material to:**

**a. Create reef infrastructure**

**b. Stimulate spat setting**

**c. Enhance ecological function**

**d. Accelerate oyster recovery, as long-term solution to current habitat degradation**

Our previous research (Aufmuth et al. In-review; Frederick et al. 2016; Pine et al. In-review) has demonstrated that degraded oyster reefs in the Big Bend are most likely substrate, and not oyster larvae limited. Using local (Suwannee River basin) dolomite limestone as a replacement substrate cultch material, we have demonstrated rapid (<5 years) recovery of oyster density on degraded oyster bars in Suwannee Sound (Pine et al. In-review). Our proposed methods will build on this success by partnering with a local company (C.A. Boone Construction, Inc. Lake City Florida) who have access to sufficient dolomite limestone material for this project. Suitable material is essential, and these contractors can provide the same rock material used in Lone Cabbage for this project, which was successful. We will work with the contracts and CKOA to break the rock into pieces that are small enough for transport on the commercial oyster harvester boats. These rocks will likely be <15 cm in any direction and each vessel can transport 1-2 cubic yards per trip to the restoration site. At each restoration site, PVC poles will be placed to delineate the site for restoration to match restoration design and permit allowances for that site, and within each site, small floats will indicate the location for each boat to deposit their load of rocks. Once the rocks are placed in the site, the rocks will be moved by hand to spread the rock material to meet the target elevation (checked using laser level and sighting pole). This same basic operation would be repeated for each restoration area whether the site requires protecting gaps or creating a fishing reef. We will track the number of yards of material moved and the vessel that moves the material using a simple ticket system where each boat captain will receive tickets for each yard of material at the staging area, and then they will surrender these tickets to an on-site monitor at the restoration location who will supervise the placement of material. Neetly Organized Bookkeeping (Chiefland, Florida), who have extensive experience working with the commercial fishing and aquaculture industry in the Levy County area will assist with tracking restoration efforts and making payments to commercial oyster harvesters who work as restoration specialists.

By completing construction during summer months, new cultch material will be in the water before the end of the oyster spatting season. This timeline would make "clean" cultch material (not fouled with other organisms) available to late season spat for settlement. There are some observations from Apalachicola Bay that the late-season oyster spat

set may have higher survival than early-season spat settlement because of cooler water temperatures and higher survival. Thus, our efforts to “stimulate spat setting” are structured around the timing of reef restoration and natural spat occurrence.

We are unsure of any ways to accelerate oyster population recovery that would be allowed by existing state regulations. We do know that our proposed restoration methods persist over time as the rocks and oyster populations on LCR were monitored for five years following construction. This period included multiple tropical storm events. Informal assessments of Lone Cabbage following hurricanes Idalia and Helene show that the rocks have remained in place. It is likely that oysters are scoured from the restored reef to the surrounding area by storm events. However, this is to be expected and is a desired outcome as this is one way to increase the oyster reef area beyond the restoration footprint by distributing oysters and natural cultch material (shells of dead oysters) to the surrounding area to allow new spat to accumulate on the restoration site. In this way, the restored site, with its durable rock cultch base, becomes a donor site to the surrounding area for both cultch and oysters. Understanding why cultch material is degrading in the Big Bend region, on reefs that are both open and closed to harvest, is unknown and an important area for research.

**5. Specify the amounts and types and locations of cultch material to deploy at each reef restoration location (plans and specifications to be prepared in a manner to directly guide implementation efforts). This should be guided by the available funds for restoration of \$1.5M.**

Our previous research efforts have documented that local (Suwannee River basin) dolomite limestone is a suitable cultch material. This material is available. Specifications for material (size and amount) depend on the final restoration location, the height of the reefs that are to be restored, and the amount of funding. Reef height will be based on site selection, size of rocks oyster restoration specialists can transport and place by hand, and restoration objectives for each site (i.e., protecting gaps vs. Fishing reefs). For planning purposes, we have calculated the amount of reef material based on restoring reefs to the average vertical relief of the Lone Cabbage project, which was approximately 1.28 feet. We have tentatively developed our proposal so that about 80% of the project costs are allocated to labor for the restoration (payments to the commercial oystermen) and materials. Based on material costs, trucking, and labor for construction, we estimate a purchase of 3000 yds<sup>3</sup> of cultch material that would then be used to build reefs in each area (SS, CK, WB) to the target elevation used in Lone Cabbage would result in a surface area of reef of about 7,000 yd<sup>2</sup>. Depending on the final determination of the size and type of reefs to be built in each location (SS, CK, WS) and the water depth at each site, different amounts of rock could be allocated to each site to meet project purposes. Final material amounts will be determined based on rock price, which varies over time based on demand and trucking costs, as rock is sold as a construction commodity.

As a rough example of project workflow based on discussions with Jerald Beckham, CKOA President, if we assume that we have 3000 yds<sup>3</sup> of cultch material, and a single vessel can move 4 yds<sup>3</sup> of cultch material per day (over 2-3 trips), and that 30 boats per day can participate in a restoration effort, then we would predict that the restoration could be completed in about 30 work days. These 30 days would need to be scheduled for specific tides, which, on average, occur for 7-8 days per month during summer and early fall. Following this schedule, the restoration could potentially be completed in 4 months.

Project timing overall could follow a schedule such as:

- Year 1: Preconstruction site surveys and planning. Apply for permits. Visit quarry. Stockpile rock. Determine employment qualifications for restoration specialists. Meet with CKOA, Levy County community, and agency partners. Complete training for restoration efforts via an on-land oyster reef mock-up.
- Year 2: Receive permits, final site inspections, begin restoration efforts.
- Year 3: Complete restoration and post-restoration monitoring of reefs completed in years 2 and year 3.

It is possible that all restoration efforts could be completed in year 2, depending on the months that the oyster harvesters want to work as oyster restoration specialists.

**6. Additionally, the consultant should develop reef restoration plans and specifications for a phased approach if additional funding becomes available to contribute to oyster restoration in the area.**

***Develop detailed, scalable reef restoration plans that accommodate potential additional funding, enabling phased expansions of restoration activities. This phased approach will be informed by adaptive management outcomes and will allow efficient use of resources and integration of new knowledge gained from ongoing monitoring.***

Our proposed restoration plans can be rapidly scaled to additional phases if additional funding is available, or new project objectives are identified. We are aware that the Region Wide Restoration Area TIG (RW-2022-011) committed \$7.1M for oyster restoration in the region with an uncertain start date (<https://www.fws.gov/doiddata/dwh-ar-documents/3904/DWH-ARZ009757.pdf>). The restoration of LCR was also a larger project than the proposed effort (Lone Cabbage used about 16,000 yd<sup>2</sup> of material). If we were to scale restoration work, we would likely combine approaches for small boat-based restoration on shallow inshore reefs like what is proposed here, with barge and equipment-based restoration of deeper offshore reefs such as the Great Suwannee Reef (“the big reef”). By using both approaches, we could restore reefs of different depths across a wider range of habitats. Currently, the FWC is considering regulatory changes to oyster harvest in the region. We would also suggest to the community that oyster harvest plans and restoration efforts be integrated to create rotational harvest policies for specific reefs, where reefs are rotationally harvested, and then culched, and then harvested over 3–5-year cycles. This type of rotational practice has been shown to facilitate sustainable oyster harvest in Alabama and Virginia. If oyster harvesters were paid to lead the restoration efforts during the years the reef is not open to harvest, then this would create opportunities for on-the-water-based income for the oyster harvesters, again working as oyster restoration specialists. For both expanded restoration or integration of restoration and harvest policies, we have the technical knowledge to aid in developing an adaptive management-based plan for successful restoration and fishery management.

**7. Apply for and comply with Special Activity Licenses and other permits required to perform project activities.**

We will prepare and submit necessary permit applications on behalf of Levy County, but because of the complicated “ownership” of submerged lands in Florida where the restoration would take place, the permit holder must be a public entity. The exact permits required are also complicated and depend on the final location of each restoration effort (Federal submerged lands as part of Lower Suwannee Refuge or State of Florida submerged lands). However, in general, in addition to the FWC Special Activity license referenced, we anticipate also needing permitting authority from FDEP, possibly the Florida Department of Agriculture and Consumer Services (FDACS), USACE, NOAA, and USCG. The permit review process timeline can be highly variable, and despite our previous permitting success for the Lone Cabbage project (see expired permits included in the Supplemental Materials), permit review could easily take 12 months. An alternative approach for permitting is for Levy County to request that agency partners, including FWC and FDACS, use the “statewide” permit that the agencies cooperatively hold for restoration work and was used for restoration projects in Pensacola, St. Andrew, and Apalachicola Bays. Under this framework, the State of Florida would be the permit holder, accelerating the review process and overall project timeline. Either way, the uncertainties of permitting restoration projects in Florida can be high, but we are confident that our use of natural materials and the demonstrated success of Lone Cabbage from a design and implementation perspective will be favorable elements of the permitting package prepared for Levy County.



**8. Conduct organizational meetings to plan the project and select project participants, including local workers to collect and transport seed oysters and rock materials, and workers who will assist in conducting restoration verification (ensuring materials delivered in the amounts and locations specified).**

We will conduct structured organizational planning meetings to outline project details, timelines, responsibilities, and resource allocation. We will coordinate these meetings with UF/IFAS Extension and Florida SeaGrant, to make sure meeting information is widely distributed to interested parties. Meetings will be held in person in Levy County at a time that allows commercial oyster harvesters to participate without interfering with fishing operations. We propose to hire local community organizers to facilitate coordination and communication with oyster harvesters and other members of the local community related to project specifics, including training and organizing labor force. We will work with the CKOA membership, including the senior leadership of the CKOA Advisory Council, on key project elements, including the location and timing of restoration efforts. As discussed earlier, a key element of this project is hiring commercial oyster harvesters to complete the restoration efforts. We will provide technical training on restoration and monitoring tasks to oyster harvesters who wish to work on the project, as oyster restoration specialists will be required to complete training to ensure work is performed to permit requirements. Hiring guidelines will be submitted to Levy County Manager for review and compliance with all funding requirements. Working with a local bookkeeper who supports local aquaculture and oyster harvester businesses to facilitate timely payments for labor and materials.

**9. Participate in public meetings, in association with the Cedar Key Oysterman Association, to provide information and details about the project.**

We will conduct structured organizational planning meetings to outline project details, timelines, responsibilities, and resource allocation. We will coordinate these meetings with UF/IFAS Extension and Florida SeaGrant to make sure meeting information is widely distributed to interested parties. Meetings will be held in person in Levy County, at a time that allows commercial oyster harvesters to participate without interfering with fishing operations. Example community events we can participate in with the CKOA and Levy County include community festivals in Cedar Key and the annual oyster roast hosted by CKOA. These community events are opportunities to provide project information to a broad audience in an informal manner.

**10. Perform the restoration activities in accordance with the plans developed in 1 – 8 above.**

Our plan details how this will be accomplished.

**11. Conduct pre-and post-project monitoring and data collection to provide critical information regarding site selection, restoration methodology, and ecological restoration success (per protocols described in 2 above).**

Monitoring protocols will incorporate quantitative assessments of oyster density, reef habitat quality, and spatial extent of oyster recovery, utilizing methodologies validated through prior oyster restoration monitoring efforts in this area (Moore et al. 2020; Pine et al. 2022). Basically, a combination of quadrat, line-transect, or swept area calculations will be used depending on restoration location and water depth to count the number of oysters in a specified area. These counts will be repeated over time. Prior restoration monitoring has used both repeated sampling at fixed locations on restored reefs and sampling at random locations on restored and unrestored reefs, and each approach has strengths and weaknesses. We will make the final determination which sampling approach to use once final reef restoration areas are selected. Oyster counts over time will be assessed using generalized linear mixed models (Pine et al. In-review) accounting for effort that informs the counts using an offset.

## 12. Provide on-going oversight and adaptive management of the oyster restoration plan during actual implementation/restoration phase of the project.

We have documented how an adaptive management framework was critical to the success of the Lone Cabbage Project (Pine et al. 2023). Our proposed project will function as a structured experiment, systematically testing hypotheses related to site selection and reef design elements such as elevation. Monitoring efforts will provide real-time feedback on oyster recruitment, population density, and structural habitat changes, allowing for modifications in current and future restoration efforts. Key lessons from the LCR restoration, including deliberate experimentation on substrate selection, reef elevation, and careful site selection informed by local knowledge and environmental conditions, will shape this adaptive management strategy. By continually analyzing outcomes, addressing emerging uncertainties, and refining restoration actions, this approach will enhance both current and future oyster restoration projects, ensuring ecological resilience and sustainable benefits.

## 13. Complete reports as required.

We will practice an open-science philosophy, which is an effort to promote transparency, reproducibility, collaboration, and learning to improve decision making by making data and results available to anyone who is interested. This includes data and computer code used to generate reports for the project.



**Figure 6.** This is a photo from LCR in winter 2013 of a research team comprised of CKOA members, FWC staff, and University of Florida students counting oysters on the restored reef using line transect methods. The oysters have encrusted the rocks in the photo and oysters are growing both on and in between the rocks. As you can see where the people on the left are standing, the restoration did not cover the entire reef with rocks, and there is no cultch material and therefore no oysters. Over the last 40 years, about 66% of the oyster reef in the Big Bend region has transitioned from productive oyster bars to degraded bars that do not have cultch and cannot support oyster populations. Without restoration, these oyster bars will never be productive.





**Figure 7.** This is also an image of LCR five years after restoration. CKOA President Jerald Beckham (center) is using a measuring tape to measure the length of the line transect that will be used to count the oysters. The line transect can be seen in the photo as the yellow and orange strings that are used to define the area to count oysters. Repeated oyster counts over time were used in Lone Cabbage to evaluate the success of the restoration project. Oysters can also be seen in the photo growing on and in between the rocks.



**Figure 8.** These two photos were provided by a member of the CKOA from the restored LCR. The photos are of oysters harvested as part of commercial fishing and were sent to W. Pine by the oyster harvester as an example that “the project worked.” These photos were taken four years after the reef was restored.





**Figure 9.** LCR was restored using dolomite limestone from a quarry near Branford, Florida. The top left picture shows the rocks being broken in the quarry. The broken rocks were then trucked to Suwannee, Florida, loaded onto a barge, and then placed on the degraded reef following our construction specifications. The Lone Cabbage project used a mix of large and small rocks as seen in the bottom photo. Our proposed work will use smaller rocks that can be transported by commercial oyster harvesters in skiffs to restore shallow oyster reefs that cannot be restored by barge.



**Figure 10.** Local oyster harvesters have completed other restoration projects using small skiffs and smaller rocks. These photos are from a project completed by Jerald Beckham and Freddy Kaim who used smaller rocks to build a roost site for oyster catchers and other coastal bird species. This demonstrates that moving smaller rocks using skiffs is feasible for a restoration project.





## TAB 4: PRICE PROPOSAL



## TAB 4: PRICE PROPOSAL

Based on our previous experience working on projects of similar scopes we propose an approximate cost of \$1,499,937 to complete this restoration project. SWCA encourages discussion of this scope of work and proposed budget with the County and would be happy to tailor the SOW to better meet budget constraints.

**Table 1. Cost Estimate.**

PHASE	LABOR \$	EXPENSES \$	TOTAL \$
Phase 1. Planning/Design	47,473	2,268	49,741
Phase 2. Permitting	34,380		34,380
Phase 3. Construction*	760,720	601,181	1,361,901
Phase 4. Monitoring/Reporting	50,459	3,456	53,915
PROJECT TOTAL			<b>\$1,499,937</b>

\* A majority of the construction labor is expected to be local oyster harvesters working during the close harvest season.

## ASSUMPTIONS

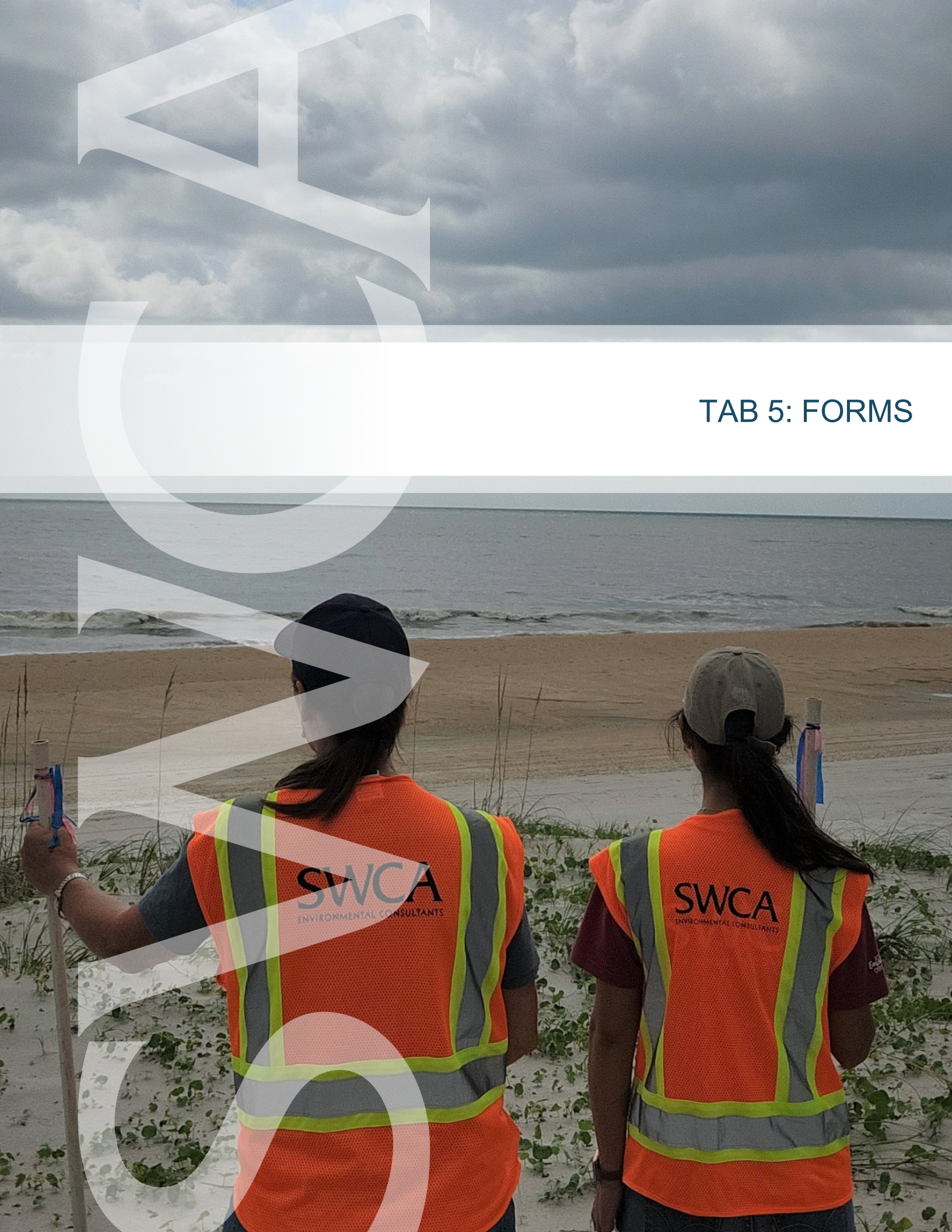
- A local community facilitator would be used to organize the community meetings during year 1 of the project. Community organizer would be used to coordinate construction labor in Phase 3.
- Site selection would occur during year one early in the process to allow time for permitting of the chosen sites.
- Once sites have been selected it is expected that 3,000 cubic yards of rock will be purchased and utilized for the restoration project
- A local labor workforce would be employed to complete the work.
- Movement of rocks is expected to take 25 construction days (30 boats moving 4 cubic yards per day).
- Post construction monitoring will be completed over the course of 5 survey days with the assistance of the local workforce and SWCA.



SWCA

## APPENDICES

## TAB 5: FORMS





## PROPOSAL SIGNATURE FORM

The undersigned attests the authority to submit this proposal and to bind the proposer herein named to fully perform in accordance with the Request for Proposals (the "RFP"), if the proposer is awarded a contract by the County. The undersigned further certifies they have read the entire RFP package, and any other documentation relating to the RFP, and that this proposal is submitted with full knowledge and understanding of the requirements contained therein.

Proposer is an (please check one):

INDIVIDUAL	<input type="checkbox"/>
PARTNERSHIP	<input type="checkbox"/>
CORPORATION	<input checked="" type="checkbox"/>
JOINT VENTURE	<input type="checkbox"/>
LLC	<input type="checkbox"/>

Name: SWCA Environmental Consultants

Primary Office Address: 20 East Thomas Road, Suite 1700

City, State, Zip: Phoenix, AZ 85012


Address (Servicing Levy County if Different from Above): \_\_\_\_\_

521 NE 1st Street, Gainesville, Florida 32601

Email Address: david.crawley@swca.com

Name/Title of Levy County Rep: David Crawley

Telephone: 281-617-3217 Fax: N/A

Signature:  Date: 03/20/25

Is Proposer a small or minority business, women's business enterprise, or labor surplus area firm?

☐ Yes ☒ No (Check which is applicable)

Cost/Fee Proposal (attached) ☒ Yes ☐ No

Addenda are considered a binding part of the RFP and it is critical each proposer acknowledge receipt of same. Your proposal may be considered non-responsive if receipt of addendum is not acknowledged below.

Receipt of Addenda Acknowledged:

Addendum No. _____	Dated _____	Signature _____
Addendum No. _____	Dated _____	Signature _____
Addendum No. _____	Dated _____	Signature _____



## CONFLICT OF INTEREST DISCLOSURE STATEMENT

The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. All proposers must disclose with their proposals or bids the names of: (1) any officer, director, employee or agent of proposer is also an officer or an employee of the Levy County Board of County Commissioners; (2) any officer, partner, director or proprietor of the proposer is the spouse or child of one of the members of the Levy County Board of County Commissioners; (3) any County officer or employee who owns, directly or indirectly, an interest of five percent (5%) or more in the proposer or any of its branches or affiliates; (4) any employee, agent, lobbyist, previous employee of the Board, or other person, who has received or will receive compensation of any kind in connection with the response to this RFP.

All proposers are also required to include a disclosure statement of any potential conflict of interest that the proposer may have due to other clients, contracts, or interest associated with the performance of services under this RFP and any resulting agreement. Use additional sheets if necessary.

(1) Names of Officer, Director, Employee or Agent that is also an Employee of the Board:

\_\_\_\_\_

(2) Names of Officer, Partner, Director or Proprietor who is spouse or child of Board Member:

\_\_\_\_\_

(3) Names of County Officer or Employee that owns 5% or more in Proposers firm:

\_\_\_\_\_

(4) Names of applicable person(s) who have received compensation:

\_\_\_\_\_

Description of potential conflict(s) with other clients, contracts or interests:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Check here if none of the above are applicable: ☒

Signature: David A. Crawley Jr Printed Name: David Crawley

Proposer Name: SWCA Environmental Consultants

Date: 3/24/25

## DRUG-FREE WORKPLACE FORM

**DRUG-FREE WORKPLACE:** Levy County is a Drug-Free Workplace. It is strongly suggested that the attached Drug-Free Workplace Form be signed and returned to this office with the proposal.

The undersigned Proposer in accordance with Section 287.087, Florida Statutes, hereby certifies that the Proposer SWCA Environmental Consultants (name of firm or individual) does:

1. Publish a statement notifying employees that the unlawful manufacture, distributions, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
  2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintain a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
  3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
  4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
  5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
  6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.
- As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

NAME OF PROPOSER:

SWCA Environmental Consultants

Signature: David A. Crawley Jr

Title: Office Director

Date: 03/20/25

## NON-COLLUSION AFFIDAVIT

I, David Crawley of the County of Alachua, FL

According to law on my oath, and under penalty of perjury, depose and say that:

1. I am an Office Director of the firm of SWCA Environmental Consultants providing this proposal in response to the RFP for Suwannee Sound/Cedar Key Oyster Restoration, and that I executed the said proposal with full authority to do so.
2. This response has been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to qualifications or responses of any other responder or with any competitor; and no attempt has been made or will be made by the responder to induce any other person, partnership or corporation to submit, or not to submit, a response for the purpose of restricting competition;
3. The statements contained in this affidavit are true and correct, and made with full knowledge that Levy County relies upon the truth of the statements contained in this affidavit in awarding any contract for any services resulting from this RFP.

David A. Crawley Jr

03/20/25

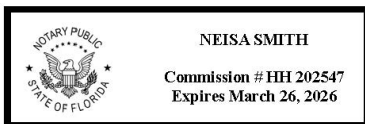
Signature of Proposer Representative

Date

STATE OF: Florida

COUNTY OF: Alachua

Sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☒ online notarization, this 20 day of March, 2025, by David Crawley (name), as Office Director (title) for SWCA Environmental Consultants (name of proposer). ☒ Personally known OR ☐ Produced Identification \_\_\_\_\_ (type of identification)



Neisa Smith

NOTARY PUBLIC

My Commission Expires: March 26, 2026



## SWORN STATEMENT ON PUBLIC ENTITY CRIME

Sworn Statement Pursuant to Section 287.133(3)(a), Florida Statutes on Public Entity Crime

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to Levy County, Board of County Commissioners

By David Crawley, Office Director  
(Print this individuals name and title)

For SWCA Environmental Consultants  
(Print name of entity submitting statements)

Whose business address is 521 NE 1st Street, Gainesville, Florida 32601

and if applicable whose Federal Employer Identification Number (FEIN) is 86-0483317.

If the entity has no FEIN, include Social Security Number of the individual signing this Sworn Statement:

n/a.

2. I understand that a “public entity crime” as defined in paragraph 287.133(1)(a), Florida Statutes, mean violation of any state or federal law by a person with respect to and directly related to the transactions of business with any public entity or with an agency or political subdivision of any other state or with the United States including, but not limited to any bid or contract for goods or services to be provided to any public entity or any agency or political subdivision of any other state or the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that “convicted” or “conviction” as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a Jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an “affiliate” as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
  - a. A predecessor or successor of a person convicted of public entity crime; or
  - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term “affiliate” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm’s length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
5. I understand that a “person” as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term “person” includes those officers, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in a relation to the entity submitting this sworn statement. (Please indicate which statement applies).

☒ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or any affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months.

☐ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months AND (Please indicate which additional statement applies).

☐ The entity submitting the sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months. However, there has been a subsequent proceeding before a Hearing Officers of the State of Florida, Division of Administrative Hearings and the Final Order by the Hearing Officer determined that it was not in the public interest place the entity submitting this sworn statement on the convicted vendor list. (Attached is a copy of the final order).

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THE PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED AND FOR THE PERIOD OF THE CONTRACT ENTERED INTO, WHICHEVER PERIOD IS LONGER. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

David A. Crowley Jr

STATE OF: Florida

COUNTY OF: Alachua

Sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☒ online notarization, this 20  
day of March, 2025, by David Crawley (name), as Office Director (title)

for SWCA Environmental Consultants \_\_\_\_\_ (name of proposer). ☒ Personally known OR ☐ Produced  
Identification \_\_\_\_\_ (type of identification)

*Lisa Smith*

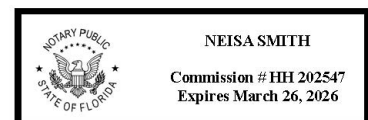
(Signature) Notary Public

Neisa Smith

(Printed, typed or stamped commissioned name of notary public)

My Commission expires March 26, 2026

(SEAL)



## CONTRACT EXCEPTION FORM

Any proposer who requires/requests revision(s) to the Form of Contract (contained in Section III of this RFP) must submit this completed Contract Exception Form during the Question portion of the RFP process. The County is under no obligation to grant any exceptions and proposals that are contingent on exceptions to the Contract being granted will not be accepted. If an exception is rejected by the County and the proposer subsequently submits a proposal, the proposer is deemed to have waived their request for a Contract exception.

Request for revision to Form of Contract
<b>Identify the specific Contract provision(s) that Proposer takes exception to:</b>
n/a
<b>Explain the specific revision(s) that are being requested (such as, delete the provision or modify it to state. . . .)</b>
n/a

Signature: David A. Crawley Jr. Printed Name: David Crawley

Proposer Name: SWCA Environmental Consultants

Date: 03/20/25



## VENDORS ON SCRUTINIZED COMPANIES LIST

By executing this Certificate, the bid proposer, certifies that it is not: (1) listed on the Scrutinized Companies that Boycott Israel List, created pursuant to section 215.4725, Florida Statutes, (2) engaged in a boycott of Israel, (3) listed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to section 215.473, Florida Statutes, or (4) engaged in business operations in Cuba or Syria. Pursuant to section 287.135(5), Florida Statutes, the County may disqualify the bid proper immediately or immediately terminate any agreement entered into for cause if the bid proposer is found to have submitted a false certification as to the above or if the Contractor is placed on the Scrutinized Companies that Boycott Israel List, is engaged in a boycott of Israel, has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria, during the term of the Agreement. If the County determines that the bid proposer has submitted a false certification, the County will provide written notice to the bid proposer. Unless the bid proposer demonstrates in writing, within 90 calendar days of receipt of the notice, that the County's determination of false certification was made in error, the County shall bring a civil action against the bid proposer. If the County's determination is upheld, a civil penalty shall apply, and the bid proposer will be ineligible to bid on any Agreement with a Florida agency or local governmental entity for three years after the date of County's determination of false certification by bid proposer.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

DATE: 03/20/25

SIGNATURE: David A. Crawley Jr

COMPANY: SWCA Environmental Consultants

NAME: David Crawley

(Typed or Printed)

ADDRESS: 521 NE 1st Street

TITLE: Office Director

Gainesville, Florida, 32601

E-MAIL: david.crawley@swca.com

PHONE NO.: 281-617-3217

## ANTI-HUMAN TRAFFICKING AFFIDAVIT

**DIRECTIONS:** All nongovernmental entities that are or potentially will be contracting, renewing or extending contracts with Levy County Board of County Commissioners must have an officer or representative fully execute this affidavit. Note, this is a mandatory requirements of s 787.06(13), Florida Statutes effective July 1, 2024.

I David Crawley (insert name) as Office Director (insert title) on

behalf of SWCA Environmental Consultants (insert entity name) under penalty of perjury hereby attest as follows:

1. I am over 21 years of age and have personal knowledge of the matters set forth in this affidavit.
2. SWCA Environmental Consultants (insert entity name) does not use coercion for labor or services as defined in s. 787.06(2)(a), Florida Statutes.
3. More particularly, SWCA Environmental Consultants (insert entity name) does not participate in any of the following actions:
  - a. Using or threatening to use physical force against any person;
  - b. Restraining, isolating or confining or threatening to restrain, isolate or confine any person without lawful authority and against her or his will;
  - c. Using lending or other credit methods to establish a debt by any person when labor or services are pledged as a security for the debt, if the value of the labor or services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of the labor or services are not respectively limited and defined;
  - d. Destroying, concealing, removing, confiscating, withholding, or possessing any actual or purported passport, visa, or other immigration document, or any other actual or purported government identification document, of any person;
  - e. Causing or threatening to cause financial harm to any person;
  - f. Enticing or luring any person by fraud or deceit; or
  - g. Providing a controlled substance as outlined in Schedule I or Schedule II of s. 893.03, Florida Statutes to any person for the purpose of exploitation of that person.

FURTHER AFFIANT SAYETH NAUGHT.

David A. Crawley Jr

Printed Name: David Crawley

Title: Office Director

Nongovernmental Entity: SWCA Environmental Consultants

Date: 03/20/25

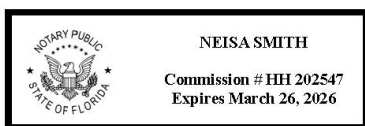
STATE OF: Florida

COUNTY OF: Alachua

Sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☒ online notarization, this 20 day of March, 2025, by David Crawley (name), as Office Director (title) for SWCA Environmental Consultants (name of proposer). ☒ Personally known OR ☐ Produced Identification (type of identification)

Neisa Smith

(Notary Seal)



Notary Public

## BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION

On behalf of the Consultant, the undersigned certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all Consultants shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Consultant certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Consultant understands and agrees that the provisions of 31 U.S.C. § 3801 *et seq.*, apply to this certification and disclosure, if any.



Signature of Consultant's Authorized Official

David Crawley

Name and Title of Consultant's Authorized Official

03/20/25

Date



## VENDOR INFORMATION SHEET

**DATE:** 03/20/25

**COMPANY NAME:** SWCA Environmental Consultants

**PHYSICAL ADDRESS:** 521 NE 1st Street, Gainesville, Florida 32601

**MAILING ADDRESS:** 521 NE 1st Street

**CITY:** Gainesville **STATE:** Florida **ZIP:** 32601

**TELEPHONE NUMBER:** (850) 494-8710

**FAX NUMBER:** n/a

**TOLL FREE NUMBER:** n/a

**EMAIL:** david.crawley@swca.com

**FEID NUMBER:** 86-0483317 **OR SSN:** n/a

**CONTACT PERSON:** David Crawley

**TITLE:** Office Director

**CONTACT NUMBER:** (281) 617-3217

.....

The information requested above is necessary to update our files or to add your name to the County's vendor list. You are a vital part of the operation of Levy County and we want to thank you for your support. The information on this form will allow us to pay you for the goods and/or services we have received in a timely manner and give us the ability to contact the necessary person in case there is a problem or question in processing.

**Request for Taxpayer  
Identification Number and Certification**

Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

**Give form to the  
requester. Do not  
send to the IRS.**

**Before you begin.** For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See Specific Instructions on page 3.	<b>1</b> Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.) <b>SWCA, Incorporated</b>	
	<b>2</b> Business name/disregarded entity name, if different from above. <b>SWCA Environmental Consulting</b>	
	<b>3a</b> Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only <b>one</b> of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> C corporation <input checked="" type="checkbox"/> S corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) _____ <b>Note:</b> Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) _____	
	<b>4</b> Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any) _____  (Applies to accounts maintained outside the United States.)	
	<b>3b</b> If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions _____ <input type="checkbox"/>	
	<b>5</b> Address (number, street, and apt. or suite no.). See instructions. <b>20 E Thomas Rd, Ste 1700</b>	
<b>6</b> City, state, and ZIP code <b>Phoenix, AZ 85012</b>		
<b>7</b> List account number(s) here (optional)		
Requester's name and address (optional)		

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

<b>Social security number</b>									
			-				-		
<b>or</b>									
<b>Employer identification number</b>									
8	6		-	0	4	8	3	3	1 7

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

<b>Sign Here</b>	Signature of U.S. person 	Date <b>01/07/25</b>
------------------	--	----------------------

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

**What's New**

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

**Purpose of Form**

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

must obtain your correct taxpayer identification number (TIN), which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid).
- Form 1099-DIV (dividends, including those from stocks or mutual funds).
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds).
- Form 1099-NEC (nonemployee compensation).
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers).
- Form 1099-S (proceeds from real estate transactions).
- Form 1099-K (merchant card and third-party network transactions).
- Form 1098 (home mortgage interest), 1098-E (student loan interest), and 1098-T (tuition).
- Form 1099-C (canceled debt).
- Form 1099-A (acquisition or abandonment of secured property).

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

**Caution:** If you don't return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.

**By signing the filled-out form, you:**

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued);
2. Certify that you are not subject to backup withholding; or
3. Claim exemption from backup withholding if you are a U.S. exempt payee; and
4. Certify to your non-foreign status for purposes of withholding under chapter 3 or 4 of the Code (if applicable); and
5. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting is correct. See *What Is FATCA Reporting*, later, for further information.

**Note:** If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding.** Payments made to foreign persons, including certain distributions, allocations of income, or transfers of sales proceeds, may be subject to withholding under chapter 3 or chapter 4 of the Code (sections 1441–1474). Under those rules, if a Form W-9 or other certification of non-foreign status has not been received, a withholding agent, transferee, or partnership (payor) generally applies presumption rules that may require the payor to withhold applicable tax from the recipient, owner, transferor, or partner (payee). See Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*.

The following persons must provide Form W-9 to the payor for purposes of establishing its non-foreign status.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the disregarded entity.
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the grantor trust.
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust and not the beneficiaries of the trust.

See Pub. 515 for more information on providing a Form W-9 or a certification of non-foreign status to avoid withholding.

**Foreign person.** If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person (under Regulations section 1.1441-1(b)(2)(iv) or other applicable section for chapter 3 or 4 purposes), do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515). If you are a qualified foreign pension fund under Regulations section 1.897(l)-1(d), or a partnership that is wholly owned by qualified foreign pension funds, that is treated as a non-foreign person for purposes of section 1445 withholding, do not use Form W-9. Instead, use Form W-8EXP (or other certification of non-foreign status).

**Nonresident alien who becomes a resident alien.** Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a saving clause. Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

**Example.** Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if their stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first Protocol) and is relying on this exception to claim an exemption from tax on their scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

## Backup Withholding

**What is backup withholding?** Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called “backup withholding.” Payments that may be subject to backup withholding include, but are not limited to, interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third-party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

**Payments you receive will be subject to backup withholding if:**

1. You do not furnish your TIN to the requester;
2. You do not certify your TIN when required (see the instructions for Part II for details);
3. The IRS tells the requester that you furnished an incorrect TIN;
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only); or
5. You do not certify to the requester that you are not subject to backup withholding, as described in item 4 under “*By signing the filled-out form*” above (for reportable interest and dividend accounts opened after 1983 only).



Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier.

## What Is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all U.S. account holders that are specified U.S. persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

## Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you are no longer tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

## Penalties

**Failure to furnish TIN.** If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

**Civil penalty for false information with respect to withholding.** If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

## Specific Instructions

### Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

• **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

**Note for ITIN applicant:** Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040 you filed with your application.

• **Sole proprietor.** Enter your individual name as shown on your Form 1040 on line 1. Enter your business, trade, or “doing business as” (DBA) name on line 2.

• **Partnership, C corporation, S corporation, or LLC, other than a disregarded entity.** Enter the entity’s name as shown on the entity’s tax return on line 1 and any business, trade, or DBA name on line 2.

• **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. Enter any business, trade, or DBA name on line 2.

• **Disregarded entity.** In general, a business entity that has a single owner, including an LLC, and is not a corporation, is disregarded as an entity separate from its owner (a disregarded entity). See Regulations section 301.7701-2(c)(2). A disregarded entity should check the appropriate box for the tax classification of its owner. Enter the owner’s name on line 1. The name of the owner entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For

example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner’s name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity’s name on line 2. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

### Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, enter it on line 2.

### Line 3a

Check the appropriate box on line 3a for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3a.

IF the entity/individual on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation.
• Individual or • Sole proprietorship	Individual/sole proprietor.
• LLC classified as a partnership for U.S. federal tax purposes or • LLC that has filed Form 8832 or 2553 electing to be taxed as a corporation	Limited liability company and enter the appropriate tax classification: P = Partnership, C = C corporation, or S = S corporation.
• Partnership	Partnership.
• Trust/estate	Trust/estate.

### Line 3b

Check this box if you are a partnership (including an LLC classified as a partnership for U.S. federal tax purposes), trust, or estate that has any foreign partners, owners, or beneficiaries, and you are providing this form to a partnership, trust, or estate, in which you have an ownership interest. You must check the box on line 3b if you receive a Form W-8 (or documentary evidence) from any partner, owner, or beneficiary establishing foreign status or if you receive a Form W-9 from any partner, owner, or beneficiary that has checked the box on line 3b.

**Note:** A partnership that provides a Form W-9 and checks box 3b may be required to complete Schedules K-2 and K-3 (Form 1065). For more information, see the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

If you are required to complete line 3b but fail to do so, you may not receive the information necessary to file a correct information return with the IRS or furnish a correct payee statement to your partners or beneficiaries. See, for example, sections 6698, 6722, and 6724 for penalties that may apply.

### Line 4 Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

#### Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third-party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys’ fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space on line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2).

- 2—The United States or any of its agencies or instrumentalities.
- 3—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities.
- 5—A corporation.
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or territory.
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission.
- 8—A real estate investment trust.
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940.
- 10—A common trust fund operated by a bank under section 584(a).
- 11—A financial institution as defined under section 581.
- 12—A middleman known in the investment community as a nominee or custodian.
- 13—A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
• Interest and dividend payments	All exempt payees except for 7.
• Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
• Barter exchange transactions and patronage dividends	Exempt payees 1 through 4.
• Payments over \$600 required to be reported and direct sales over \$5,000 <sup>1</sup>	Generally, exempt payees 1 through 5. <sup>2</sup>
• Payments made in settlement of payment card or third-party network transactions	Exempt payees 1 through 4.

<sup>1</sup> See Form 1099-MISC, Miscellaneous Information, and its instructions.

<sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

**Exemption from FATCA reporting code.** The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) entered on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37).

B—The United States or any of its agencies or instrumentalities.

C—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i).

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i).

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state.

G—A real estate investment trust.

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940.

I—A common trust fund as defined in section 584(a).

J—A bank as defined in section 581.

K—A broker.

L—A trust exempt from tax under section 664 or described in section 4947(a)(1).

M—A tax-exempt trust under a section 403(b) plan or section 457(g) plan.

**Note:** You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

## Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, enter "NEW" at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

## Line 6

Enter your city, state, and ZIP code.

## Part I. Taxpayer Identification Number (TIN)

**Enter your TIN in the appropriate box.** If you are a resident alien and you do not have, and are not eligible to get, an SSN, your TIN is your IRS ITIN. Enter it in the entry space for the Social security number. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note:** See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

**How to get a TIN.** If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at [www.SSA.gov](http://www.SSA.gov). You may also get this form by calling 800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at [www.irs.gov/EIN](http://www.irs.gov/EIN). Go to [www.irs.gov/Forms](http://www.irs.gov/Forms) to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to [www.irs.gov/OrderForms](http://www.irs.gov/OrderForms) to place an order and have Form W-7 and/or Form SS-4 mailed to you within 15 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and enter "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, you will generally have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note:** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon. See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier, for when you may instead be subject to withholding under chapter 3 or 4 of the Code.

**Caution:** A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

## Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

**Signature requirements.** Complete the certification as indicated in items 1 through 5 below.

**1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

**2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

**3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.

**4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third-party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

**5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

## What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup>
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor <sup>2</sup>
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee <sup>1</sup>
b. So-called trust account that is not a legal or valid trust under state law	The actual owner <sup>1</sup>
6. Sole proprietorship or disregarded entity owned by an individual	The owner <sup>3</sup>
7. Grantor trust filing under Optional Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))**	The grantor*

For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity <sup>4</sup>
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing Form 1041 or under the Optional Filing Method 2, requiring Form 1099 (see Regulations section 1.671-4(b)(2)(i)(B))**	The trust

<sup>1</sup> List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> You must show your individual name on line 1, and enter your business or DBA name, if any, on line 2. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup> List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.)

\* **Note:** The grantor must also provide a Form W-9 to the trustee of the trust.

\*\* For more information on optional filing methods for grantor trusts, see the Instructions for Form 1041.

**Note:** If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

## Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information, such as your name, SSN, or other identifying information, without your permission to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax return preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity, or a questionable credit report, contact the IRS Identity Theft Hotline at 800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.



Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 877-777-4778 or TTY/TDD 800-829-4059.

**Protect yourself from suspicious emails or phishing schemes.**

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to [phishing@irs.gov](mailto:phishing@irs.gov). You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 800-366-4484. You can forward suspicious emails to the Federal Trade Commission at [spam@uce.gov](mailto:spam@uce.gov) or report them at [www.ftc.gov/complaint](http://www.ftc.gov/complaint). You can contact the FTC at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see [www.IdentityTheft.gov](http://www.IdentityTheft.gov) and Pub. 5027.

Go to [www.irs.gov/IdentityTheft](http://www.irs.gov/IdentityTheft) to learn more about identity theft and how to reduce your risk.

## Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and territories for use in administering their laws. The information may also be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payors must generally withhold a percentage of taxable interest, dividends, and certain other payments to a payee who does not give a TIN to the payor. Certain penalties may also apply for providing false or fraudulent information.



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Financial Stability Letter

1/4/2024

To Whom It May Concern:

As a private company, SWCA does not disclose its financial statements. However, we recognize that some clients may require evidence of SWCA's financial stability. As such, we offer the following information that we hope illustrates the strength of our company:

1. SWCA is 100% employee-owned and has remained financially stable since our founding in 1981. As of this date we have over 1,600 employees.
2. SWCA's revenues have grown in nearly every year of our existence, and we have experienced a 5-year compound annual growth rate of 13.8%.
3. Our banking relationship with First American Bank is excellent, and we have maintained this relationship since 1998 when we became an employee-owned Employee Stock Ownership Plan (ESOP) company. We have zero debt, maintain deposit balances in excess of \$20M, and have a \$6M line of credit with a zero balance. Our banking representative is James Walrack and he can be reached at 847.586.2285.

Please feel free to contact me if you have any questions.

Regards,

A handwritten signature in black ink, appearing to read "Michael Lanin", written over a light blue horizontal line.

Michael Lanin

Vice President of Accounting, Finance & Risk Management

602.274.3831

## SWCA CLAIMS HISTORY IN THE LAST 10 YEARS

### DONNA CHICK, AS ADMINISTRATOR OF THE ESTATE OF LOUISE BARBUZZI V. ROLFE HOUSE LIMITED PARTNERSHIP D/B/A ROLFE HOUSE APARTMENTS; SHP MANAGEMENT CORPORATION; NEW ENGLAND ENVIRONMENTAL, INC.; SWCA, INC.; AND OCCUHEALTH, INC.

Name of Project Owner	Rolfe House Limited Partnership D/B/A Rolfe House Apartments
Filing Date	May, 2021
Basis for Claim	Tenant of retirement home succumbed to legionella; claim alleges that Rolfe House was negligent for not properly managing its plumbing system; SWCA was drawn in as a related party.
Court	Commonwealth of Massachusetts, Suffolk, SS., Superior Court Department
Case No.	Civil Action No. 2084 CV 00745
Claim or Suit Amount	N/A
Current Status	Resolved through mediation
Award or Settlement Amount	N/A

### THE PEOPLE OF THE STATE OF CALIFORNIA V. CUPERTINO ELECTRIC INC., SPOWER SUSTAINABLE POWER GROUP, SWCA, INCORPORATED AND [SWCA EMPLOYEE NAME REDACTED]

Name of Project Owner	SPower Sustainable Power Group
Filing Date	September, 2019
Court	Superior Court of the State of California, for the County of Los Angeles
Case No.	9AN06709
Basis for Claim	Alleged permissance of the removal of an unoccupied nest.
Claim or Suit Amount	N/A
Current Status	Case dismissed
Award or Settlement Amount	N/A

### DYNAMIC ENERGY V. SWCA, INCORPORATED

Name of Project Owner	Dynamic Energy
Filing Date	March 25, 2020
Court	N/A – Claim was resolved through mediation
Case No.	N/A



#### DYNAMIC ENERGY V. SWCA, INCORPORATED

Basis for Claim	Massachusetts Attorney General alleged that runoff left the site of a solar emplacement that was being developed by Dynamic Energy. SWCA had performed a SWPPP for Dynamic and was drawn into mediation as a result.
Claim or Suit Amount	N/A
Current Status	Settled out of court on 5/24/21 with no admission of fault accompanied with a strict confidentiality agreement.
Award or Settlement Amount	N/A

#### SARAH BOHLING AND BRADLEY BOHLING V. SWCA, INCORPORATED AND [SWCA EMPLOYEE NAME REDACTED]

Name of Project Owner	n/a
Filing Date	February, 2019
Court	State of New Mexico, County of Bernalillo, Second Judicial District
Case No.	D-202-CV-2019-01474
Basis for Claim	Vehicle accident involving an SWCA employee
Claim or Suit Amount	N/A
Current Status	Settled out of court on 8/13/2021 with no admission of fault accompanied with a strict confidentiality agreement
Award or Settlement Amount	N/A

#### FORT BEND COUNTY LEVEE IMPROVEMENT DISTRICT #7 V SWCA, INC., LONGHORN EXCAVATORS, INC. AND C.S. BRITTON, INC.

Name of Project Owner	Fort Bend County Levee Improvement District #7
Filing Date	November 21, 2022
Court	434th Judicial District Court, Richmond, Texas
Case No.	22-DCV-299033
Basis for Claim	Alleged stream restoration failure due to construction errors; SWCA was drawn in as a related party.
Claim or Suit Amount	N/A
Current Status	Resolved through mediation
Award or Settlement Amount	N/A

**ACORD**<sup>TM</sup>**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

10/16/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> <b>USI Insurance Services, LLC</b> <b>2375 E.Camelback Rd. Suite 250</b> <b>Phoenix, AZ 85016</b>	<b>CONTACT NAME:</b> Isai Gomez <b>PHONE (A/C, No, Ext):</b> 602-374-1341 <b>FAX (A/C, No):</b> <b>E-MAIL ADDRESS:</b> isai.gomez@usi.com														
<b>INSURED</b> <b>SWCA, Incorporated</b> <b>20 East Thomas Road, Suite 1700</b> <b>Phoenix, AZ 85012</b>	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A : Continental Insurance Company</td> <td>35289</td> </tr> <tr> <td>INSURER B : National Fire Insurance Co. of Hartford</td> <td>20478</td> </tr> <tr> <td>INSURER C : Valley Forge Insurance Company</td> <td>20508</td> </tr> <tr> <td>INSURER D : Steadfast Insurance Company</td> <td>26387</td> </tr> <tr> <td>INSURER E : Continental Casualty Company</td> <td>20443</td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : Continental Insurance Company	35289	INSURER B : National Fire Insurance Co. of Hartford	20478	INSURER C : Valley Forge Insurance Company	20508	INSURER D : Steadfast Insurance Company	26387	INSURER E : Continental Casualty Company	20443	INSURER F :	
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INSURER F :															

**COVERAGES****CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> BI/PD Ded:10,000 GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:	X	X	7039732036	07/26/2024	08/25/2025	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$15,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 Max Agg \$10,000,000
E	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY	X	X	7039732053	07/26/2024	08/25/2025	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input checked="" type="checkbox"/> RETENTION \$10,000	X	X	7039732084	07/26/2024	08/25/2025	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE/OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> Y/N <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	7039732070 (AOS)	07/26/2024	08/25/2025	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000
C			X	7039732067 (CA)	07/26/2024	08/25/2025	E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
D	Enviro. Liab Prof			PEC992416902	07/26/2024	08/25/2025	\$15,000,000 Each Claim
D	Contractors Poll*	X	X	PEC992416902	07/26/2024	08/25/2025	\$15,000,000 Aggregate
	Prof -Claims Made						\$100,000 Deductible

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**\*\*Environmental Professional Liability Policy Each Claim/Aggregate Limits / Retro Dates as follows:**

\$15,000,000/\$15,000,000 retro date 7/26/2022; \$10,000,000/\$10,000,000 retro date 7/26/2019 7/25/2022

\$5,000,000/\$5,000,000 retro date 2/28/1990 7/25/2019

**\*\*Various other Coverages/Limits Retro Dates Apply. \*Pollution Liability Occurrence Form 7/26/2022.**

(See Attached Descriptions)

**CERTIFICATE HOLDER****CANCELLATION**

**SWCA, Incorporated**  
**20 East Thomas Road, Suite 1700**  
**Phoenix, AZ 85012-0000**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

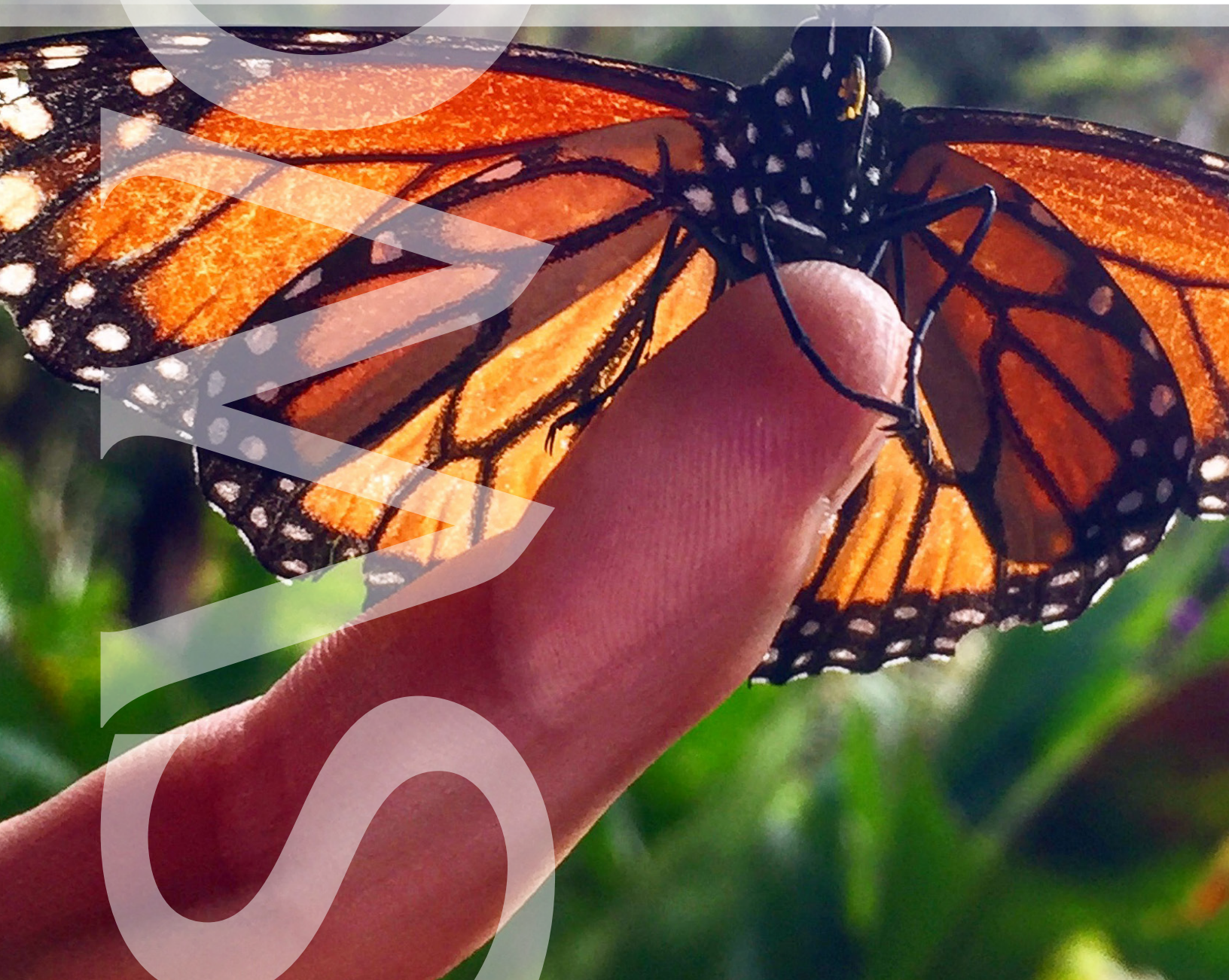
AUTHORIZED REPRESENTATIVE

*Isai Gomez*

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## APPENDIX A: RESUMES





## BILL PINE, PH.D., NATURAL RESOURCES TECHNICAL ADVISOR

Dr. Pine is a senior technical advisor for SWCA, with more than 30 years of experience as a fisheries biologist. For 18 years, Dr. Pine was a professor with the University of Florida, teaching courses in quantitative wildlife ecology, stream fish biology, fisheries and aquatic sciences, and field ecology of aquatic organisms. Dr. Pine's expertise is primarily related to aquatic resources, with a particular emphasis on rivers and nearshore coastal systems. His work examines how ecosystem constituents (mostly fish and invertebrates) respond to change related to water withdrawals, dams, species introductions, changing climate, and harvest.

Dr. Pine has led, and currently leads, research projects across multiple academic institutions, state and federal research agencies, and non-governmental organizations on a continental scale. This research includes a diverse range of habitats ranging from the Grand Canyon reach of the Colorado River, the Apalachicola-Chattahoochee-Flint River basin in the southeastern United States, and spring-dominated river systems in Florida. He has worked in U.S. National Parks, United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage sites, and state and private lands. Dr. Pine has been recognized as a Research Foundation Professor by the University of Florida and by the U.S. Department of Interior for his scientific contributions. His scholarship has been supported by about \$15 million in competitive grants since 2005 from a portfolio of state and federal agencies across the United States.

### YEARS OF EXPERIENCE

26

### EXPERTISE

Fisheries biology and sampling

Aquatic ecology

Ecological restoration

Population and habitat viability modeling

Fish population demographics and dynamics

Threatened and endangered surveys

Stream and river assessments

### EDUCATION

Ph.D., Zoology; North Carolina State University, Raleigh; 2003

M.S., Fisheries Science; University of Florida, Gainesville; 1999

B.S., Fisheries Management; Auburn University, Alabama; 1997

### MEMBERSHIPS

Native American Fish and Wildlife Society

American Fisheries Society, Education and Fish Management Section Member

### SELECTED PROJECT EXPERIENCE (\* denotes project experience prior to SWCA)

**\*Recovery And Resilience of Oyster Reefs in the Big Bend Region of Florida; National Fish and Wildlife Foundation; Suwannee Sound, Florida.** Dr. Pine is a Co-Principal Investigator who leads oyster population and water quality response to the restoration of Lone Cabbage Reef in Suwannee Sound, Florida. Restoration of this 5-km chain of oyster reefs is done through collaborative work with commercial oyster harvesters and agencies, is the largest successful oyster restoration project in Florida. *Dr. Pine led experimental design, monitoring, data management, and analyses for this project.*

**\*Commercial Oyster Restoration Assistance; Cedar Key Oystermen's Association; Suwannee Sound, Florida.** Dr. Pine provides assistance to a non-profit organization of commercial oyster harvesters interested in developing effective oyster restoration and fishery management programs. *Role: Science Advisor. Assessing the relationships among environmental factors and harvest policies in developing an understanding of factors influencing oyster populations and oyster fisheries in Suwannee Sound and the role of oyster restoration in developing sustainable fisheries*

**\*Informing PDARP Goals Through Assessment and Analyses of Gulf Sturgeon Population Data; National Oceanic and Atmospheric Administration (NOAA); Florida.** Working with state, federal, industry, and academic cooperators three decades of capture-recapture data was synthesized to assess status, trends, and river fidelity for Gulf Sturgeon across their range in the Gulf of Mexico. Efforts were led to estimate juvenile Gulf Sturgeon survival and site occupancy in the Choctawhatchee River basin. Completing these efforts necessitated the development of the consolidated Gulf Sturgeon database containing over 500,000 contact records from more than 21,000 uniquely marked Gulf Sturgeon and linking this database to an electronic logbook program to modernize data workflow by increasing data collection accuracy and accelerating analyses. *Role: Project Principal Investigator and Analyst.*

## CHRISTINA PILLA, AWB, M.S., PROJECT MANAGER

Christina Pilla is an experienced environmental consultant with a robust background in overseeing complex environmental projects throughout the southeastern United States. Christina has worked on a broad range of interdisciplinary projects in cooperation with federal agencies such as the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers, and Federal Energy Regulatory Commission, as well as state agencies such as Florida Fish and Wildlife Conservation Commission (FWC), and the Florida Department of Environmental Protection (FDEP), and private developers. Christina is adept at managing cross-functional teams, optimizing project workflows, and ensuring compliance with environmental rules and regulations. In addition, Christina has a proven ability to lead multidisciplinary teams, coordinate with regulatory agencies, and deliver high-quality reports and recommendations.

### YEARS OF EXPERIENCE

10

### EXPERTISE

Biological/environmental compliance

Data management

Wildlife ecology and surveys

Wetland ecology and assessment

Wetland delineation

Listed species relocation

Biological sampling

Water quality assessments

Aquatic resources assessment

### EDUCATION

M.S., Environmental Policy and Management; University of Denver, Colorado; 2022

B.S., Wildlife Ecology and Conservation; University of Florida; Florida, 2014

### REGISTRATIONS / CERTIFICATIONS

PADI Open Water Diver, 1306Q4479; June 2013

### MEMBERSHIPS

The Wildlife Society, Associate Wildlife Biologist, 2021

### SELECTED PROJECT EXPERIENCE (\* denotes project experience prior to SWCA)

**Confidential Solar Project; Confidential Client; Calhoun County, Florida.** Christina served as the project manager for the construction of a 74.5-MW solar energy facility located in Calhoun County, Florida. *Role: Project Manager. Duties included scheduling field survey events, FDEP environmental resource permitting, consultation with the FWC, U.S. Army Corps of Engineers Pre-Construction Notification permitting, and informal consultation with USFWS, as well as weekly client meetings and pre-application meetings.*

**Confidential Project Habitat Conservation Plan; Confidential Client; Osceola County, Florida.** SWCA is preparing a habitat conservation plan for a solar project with anticipated impacts to federally listed species. Tight timelines are an important constraint for this project, and SWCA has met deliverable times on schedule through the application process. SWCA worked with the client to identify and entitle an on-site conservation area for the federally listed species. *Role: Assistant Project Manager. Performed habitat conservation plan support and technical writing.*

**America the Beautiful Challenge; National Fish and Wildlife Foundation; Multiple Southeastern States.** SWCA is providing technical guidance and federal compliance review support for the America the Beautiful Challenge, which includes assisting the National Fish and Wildlife Foundation's program. SWCA reviewed programmatic conservation actions for habitat improvement and management of ecosystems in the Southeast, assisted with updating the Endangered Species Act document, provided grantee consultation, and coordinated with the USFWS. *Role: Grantee Liaison. Organized compliance assurance for the grant and provided information to select parties.*

**\*West Grasshopper Long Term Recipient Site Units 1 - 4 Permitting; Lykes Bros., Inc.; Glades County, Florida.** As an FWC Authorized Gopher Tortoise Agent, Christina relocated gopher tortoises from various projects to the West Grasshopper Long-Term Recipient Site, Units 1 and 2. Duties included conducting inspections of the integrity of the holding pens before animal release, installation of new pens, and triannual vegetation monitoring and reporting in accordance with the FWC gopher tortoise permitting guidelines. *Role: Project Manager. Christina used the data collected during the monitoring and survey events to apply for a permit for two new units totaling over 250 acres. In addition, coordinated with FWC to conduct site visits and establish monitoring plans for the project.*

**\*City of Treasure Island Seawall Assessment; City of Treasure Island; Treasure Island, Florida.** Christina conducted general aquatic resource assessments on 22 seawalls located throughout the city of Treasure Island. *Role: Project Manager. Christina used the data collected during the aquatic resource assessment to provide a report to the City of Treasure Island documenting whether the seawalls were suitable candidates for living shoreline conversion.*

## STEVE HAFNER, B.S., GIS LEAD

Steve Hafner is the Geospatial Sciences Team Lead responsible for the production and analysis of scientific map products and managing GIS Staff in the Southeast subregion. Steve is based out of the Pensacola, Florida, office, part of the larger SWCA Gulf Coast/Southeast team. He responds to cartographic and data analysis needs and works closely with the field teams and managers assigned to various projects. Steve has over 10 years of combined experience in geographic data analysis and environmental compliance and regulation with the U.S. Environmental Protection Agency (EPA) - Gulf Ecology Division, environmental consulting groups, and the Florida Department of Environmental Protection. He has a B.S. in Marine Biology and a Graduate Certificate in Geographic Information Sciences, both obtained from the University of West Florida in Pensacola. He has additional experience in water resources, the National Pollutant Discharge Elimination System (NPDES), stormwater management and regulation, and the Safe Drinking Water Act for public water systems.

### YEARS OF EXPERIENCE

10

### EXPERTISE

Geographic Information Systems (GIS)

Esri GIS mapping software and programming (ArcGIS, ArcInfo, etc.)

Geospatial modeling and analysis

### EDUCATION

Graduate Certificate, Geographic Information Systems; University of West Florida, Pensacola, FL; 2015

B.S., Marine Biology; University of West Florida, Pensacola, FL; 2011

### SELECTED PROJECT EXPERIENCE

**Compliance Assurance Program, Wastewater/Stormwater/Potable Water Section; Florida Department of Environmental Protection; Statewide, Florida.** Conducted compliance inspections and regulatory duties for potable water systems. On-site inspection of NPDES wastewater facilities, both domestic and industrial, including effluent quality, toxicology reporting, facility conditions, and required document submission. Response to surface water pollution complaints received from the public with a site inspection and direct communication. *Role: Environmental Specialist. Conducted production of technical writing documents, including compliance enforcement inspection reports, compliance assistance offers, warning letters, and consent orders.*

**Environmental Permitting Support; Biome Environmental Consulting; Statewide, Florida.** SWCA provided assistance with wetland field delineations and permitting applications with the Army Corps of Engineers and the Florida Department of Environmental Protection. *Role: GIS Analyst. Performed analysis, creation, and maintenance of environmental GIS data used for map production and environmental assessment.*

**FY18 to FY21 and FY23 Economic Development Environmental Assessments; Tennessee Valley Authority; Statewide, Tennessee.** SWCA is currently supporting the preparation of environmental assessments as part of the Economic Development InvestPrep program. During the National Environmental Policy Act reviews, SWCA is conducting surveys, including wetland delineations, hydrologic determinations, and botanical, terrestrial, aquatic, and cultural Phase I and II surveys. This Section 106 project involves viewshed analysis and the identification, documentation, and evaluation of historic resources around the project area also developed a historic context statement and a determination of potential effects. *Role: GIS Specialist. Performed GIS analysis and compliance.*

**Lavaca Bay Solar; TC Energy; Lavaca County, Texas.** SWCA conducted natural and cultural resources surveys and permitting support for a 3,000-acre solar development project. *Role: GIS Specialist. Performed GIS analysis and compliance.*

**Data and GIS Support; EPA, Gulf Ecology Division; Multiple Counties, Gulf Coast.** Data and GIS support for the Sustainable and Healthy Communities/Ecosystem Assessment Branch of the EPA. Management and creation of large, nationwide GIS data sets relating to land use/land cover, path and coverage of historic environmental hazards, and interpolation of environmental condition scores based on National Aquatic Resource Survey data. *Role: Independent Services Contractor. Conducted data and GIS support.*



## CAROLINE COPE, B.S., FIELD SUPPORT

Captain Caroline Cope is a field-oriented biologist with 5 years of experience in the fields of coastal protection and restoration, marine science, marine navigation, stream assessments, threatened & endangered species, and wetland delineations. Captain Cope has compiled a diverse environmental portfolio by employing her knowledge of coastal and marine management, performing biological impact studies, and applying her expertise in field methods on projects for a wide range of customers: National Oceanic and Atmospheric Administration (NOAA); National Marine Fisheries (NMFS); Department of Environmental Protection (DEP); Department of Environmental Quality (DEQ); U.S. Army Corps of Engineers; Port of Houston; the State of Texas.

### YEARS OF EXPERIENCE

5

### EXPERTISE

Coastal restoration  
Marine Science  
Remediation  
Stream and river assessments  
Wetland delineations

### EDUCATION

B.S., Ocean & Coastal Resources,  
m: Geological Oceanography; Texas  
A&M University; 2017

### CERTIFICATIONS

Merchant Mariner Credentials (6-  
Pack OUPV)  
Transportation Worker Identity Card  
(TWIC)

### TRAINING

40hr HAZWOPER (Hazardous Waste  
Operations and Emergency  
Response), OSHA  
Red Cross First Aid and CPR  
Certification  
Qualified Stormwater Management  
Inspector

### MEMBERSHIPS

Central Florida Association of  
Environmental Professionals  
(CFAEP)  
Maritime Consortium

### SELECTED PROJECT EXPERIENCE

**Chandaleur Island Restoration; Coastal Engineering Consultants, Inc.; East Baton Rouge Parish, Louisiana.** Assisted in field data collection for the restoration project of the Chandaleur Islands. Seagrass beds were the target of study; data was obtained on a variety of seagrass species, and ground truthing was performed to map the extent of seagrass along the interior of the islands. The relocation of the seagrass beds aid in erosion reversal and restoration of the islands through sedimentation. *Role: Biologist.*

**Delta Wind, NR Surveys; AES Corporation; Tunica County, Mississippi.** Performed wetland delineations, mapping of freshwater streams, environmental site assessment, and threatened and endangered species surveys within the corridors of a wind energy site. The data compiled aided in engineering a feasible route of construction for the project while mitigating impacts on the existing natural resources. *Role: Biologist.*

**Mountain Valley Pipeline Project; Potesta & Associates; West Virginia and Virginia.** Completed baseline stream assessments and wetland delineations in West Virginia and Virginia for the Mountain Valley Pipeline project. Assessed potential environmental impacts, erosional rates, and points of contamination to determine quality and sustainability of the streams. Physically sampled water quality and collected Benthic data to determine biological suitability. Assisted in data management for the Department of Environmental Quality and West Virginia Department of Environmental Protection for the purpose of obtaining construction permits for 800+ streams. *Role: Environmental Scientist.*

**Bahia Pipeline; Bahia Pipeline; Galveston County, Texas.** SWCA performed a natural resources survey for the Bahia Pipeline around the Houston area in Texas. *Role: Biologist*

**Confidential Oil & Gas Project; Confidential Client; Harris County, Texas.** SWCA conducted presence/absence surveys for the tricolored bat (*Perimyotis subflavus*). Project activities entailed a desktop habitat assessment, acoustic detector deployment, data analysis, follow-up mist-net surveys, and preparation of associated survey report. *Role: Biologist.*

**Developmental Due Diligence Projects; Dr. Horton; Central and Southeast Florida.** Managed due diligence surveys on properties located in Central and Southeast Florida, which included Phase II remediation practices on active construction sites to maintain irrigation ditches, retention ponds, and groundwater contamination. *Role: Environmental Scientist.*

## MIKALA DREES, B.S., FIELD SUPPORT

Mikala Drees is a natural resources Assistant Project Biologist for SWCA's Gulf Coast Region. Mikala is involved in energy development projects as a field lead for wetland and waterbody delineations, threatened and endangered species, and stream assessments. In this role, Mikala leads the field surveys as well as the associated reporting efforts, including wetland delineation reports, threatened and endangered species assessments, and critical issues analysis. Additionally, Mikala has experience in the preparation of Federal Energy Regulatory Commission (FERC) resource reports.

### YEARS OF EXPERIENCE

5

### EXPERTISE

Wetland delineations

Stream assessments

Plant identification

Protected species surveys

Coastal restoration

Oyster reefs

Marine science

### EDUCATION

B.S., Ocean and Coastal Resources m:  
Oceanography, Geology; Texas A&M  
University, Galveston, Texas; 2018

### CERTIFICATIONS

Tennessee Qualified Hydrologic  
Professional-IT

Florida Fish and Wildlife Conservation  
Commission (FWC) Authorized Gopher  
Tortoise Agent

### TRAINING

FERC Environmental Training Seminar

AHA First Aid and CPR

### MEMBERSHIPS

Florida Association of Environmental  
Professionals – Northwest Chapter

Florida Native Plant Society – Longleaf  
Pine Chapter

### SELECTED PROJECT EXPERIENCE (\* denotes project experience prior to SWCA)

#### **Chandeleur Island Restoration - Phase 2 Seagrass Survey - Field; Coastal Engineering Consultants, Inc.; Baton Rouge, East Baton Rouge Parish, Louisiana.**

SWCA is currently providing environmental services to support the design and implementation of a barrier island reconstruction benefitting the Chandeleur Islands in coastal Louisiana. The project will focus on the restoration and reconstruction of the main Chandeleur Island. SWCA developed and executed a rapid assessment survey for approximately 3,000 acres of seagrasses along the barrier island chain, providing a comprehensive baseline dataset to support the project design and habitat restoration plan. *Role: Biologist. Participated in seagrass surveys.*

#### **Eagle LNG 3; Eagle LNG Partners Jacksonville II LLC; Duval County, Florida.**

SWCA is providing continuing effort to support post-certificate permitting and authorization tasks. *Role: Biologist. Performed burrow scoping activities and assisted in the transportation of gopher tortoises from the Project location to the recipient site.*

#### **Bessemer Calera Expansion Project; Southern Natural Gas; Shelby County, Alabama.**

SWCA is supporting a proposed project that includes the replacement of 2.32 miles of pipeline loop, installation of 1.65 miles of pipeline loop, and modifications at 10 meter stations. *Role: Biologist. Performed field surveys and assisted with FERC resource reports.*

#### **Southeastern Connector, Chilton Loop; Williams Gas; Chilton County, Alabama.**

SWCA provided a cultural resources and environmental assessment survey for the southeastern connector, Chilton Loop, in Chilton County, Alabama. *Role: Biologist. Lead wetland and waterbody delineations and natural resource reports.*

#### **ALMEA-11 Emergency EMAT Digs; Energy Transfer; Baldwin and Escambia**

**Counties, Alabama.** SWCA is supporting a proposed project that includes the replacement of 2.32 miles of pipeline loop, installation of 1.65 miles of pipeline loop, and modifications at 10 meter stations. *Role: Biologist. Lead field surveys and associated reporting.*

#### **Leaf River Compressor Station Project; Leaf River Energy Center, LLC; Jasper County, Mississippi.**

Provided permitting costs and timeline management to basic the client to conduct a Front End Engineering Design (FEED) for a salt cavern expansion. In addition, SWCA assisted with a series of miscellaneous environmental tasks. *Role: Biologist. Lead field surveys, field reporting, and FERC resource reports.*

**Heidelberg Lateral Project; Tennessee Gas Pipe Line Company, LLC; Jasper County, Mississippi.** SWCA is supporting a proposed project that includes installation of a 1.58-mile lateral pipeline along a segment of the existing TGP system in Jasper County, Mississippi. *Role: Biologist. Lead wetland and waterbody delineation, protected species surveys, and natural resource reports.*



The background of the page is a photograph of a field with tall, dry grass. Five people wearing safety vests and hats are walking across the field. In the background, there is a line of trees under a blue sky with white clouds. A large, semi-transparent watermark with the letters 'ARCS' is overlaid on the image.

## APPENDIX B: SUPPLEMENTAL LICENSES / PERMITS