

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS**

AGENDA ITEM SUMMARY

Meeting Date:	December 5, 2023	<input checked="" type="checkbox"/> Consent	<input type="checkbox"/> Regular
		<input type="checkbox"/> Workshop	<input type="checkbox"/> Public Hearing
Department:	<u>Environmental Resources Management</u>		

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to:

A) accept State of Florida Department of Environmental Protection (DEP) Change Order of \$599,467.45, which includes funding for Palm Beach County (PBC) to conduct reef restoration work, and pass through funding for Healthy Aquatics Marine Institute of Florida Inc. DBA The Reef Institute (Reef Institute) to acquire, study, and outplant corals to PBC reefs, beginning July 11, 2023 and terminating June 30, 2024; and

B) approve Budget Amendment of \$167,071 in the Environmental Resources Capital Projects Fund to recognize the additional revenue from DEP; and

C) approve Amendment Number 1 to Agreement Between Palm Beach County and Healthy Aquatics Marine Institute of Florida Inc. (R2023-0944) For A Cost Reimbursement of The Phase 4A Coral Restoration Project (Agreement) to extend the term of the Agreement from December 31, 2023 to June 30, 2024, increase the amount of cost reimbursement from \$389,327.33 to \$555,147.84, and modify Exhibit A, the Project Work Plan, to reflect the DEP change order.


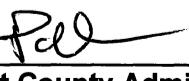
Summary: On March 17, 2020 and again on February 2, 2021, the Board of County Commissioners (BCC) approved Agreements R2020-0319 and R2021-0192, respectively, to pass money from DEP to Reef Institute to acquire, maintain, and propagate corals and enhance a land-based nursery. On July 11, 2023, the BCC accepted a DEP purchase order in the amount of \$432,396.93, and approved a third Agreement (R2023-0944) to pass funding from DEP to Reef Institute to rear additional corals, study the effects of medical treatments on captive corals, and outplant corals to PBC reefs. The DEP purchase order funded \$389,327.33 for Reef Institute’s project, and \$43,069.60 for the County, which included project administrative costs as well as funding for County-led restoration and monitoring of reefs. The Agreement, and the associated \$389,327.33 in funding from DEP to Reef Institute, was set to terminate on December 31, 2023, at which point Reef Institute expected to receive funding directly from DEP instead of relying on the County to act as a pass-through agency.

However, DEP no longer expects authorization to disburse funds directly to not-for-profit entities such as Reef Institute until July 2024. Therefore, DEP has requested that PBC continue to pass DEP funding through to Reef Institute until June 30, 2024, and has issued a change order to extend funding to Reef Institute under the original purchase order from December 31, 2023 to June 30, 2024, increase the amount of funding for Reef Institute by \$165,820.51, and increase funding for the County’s administrative costs by \$1,250. This brings the total change order to \$599,467.45, with \$44,319.61 covering the County’s project costs plus administrative costs and \$555,147.84 covering Reef Institute project costs. The County will continue to receive deliverables from Reef Institute and submit those as an invoice to DEP. Upon payment by DEP to the County, the County will pay Reef Institute. The County will also continue to submit its own deliverables to DEP as described in the DEP change order. **There is no cost to the County.** Countywide (SS)

Background and Justification: The Reef Institute is a local coral conservation and education organization and has become an integral part of statewide conservation efforts. In response to the 2023 bleaching event that significantly impacted portions of Florida’s Coral Reef, the Reef Institute has taken hundreds of corals in to their land-based nursery in West Palm Beach for rehabilitation. These corals, many of which represent endangered or threatened species, are reliant upon constant and meticulous care. By amending our Agreement, PBC can continue to pass DEP funding through to Reef Institute at a time when land-based coral care is crucial to the future of our coral reef ecosystems.

Attachments:

1. Amendment Number 1
2. DEP Change Order
3. Budget Amendment (3654)

Recommended by:		10-25-23	SAS 10/23/23
	Department Director	Date	
Approved by:		11/21/23	
	Assistant County Administrator	Date	

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2024	2025	2026	2027	2028
Capital Expenditures	<u>\$167,071</u>	_____	_____	_____	_____
Operating Costs	_____	_____	_____	_____	_____
External Revenues	<u>(167,071)</u>	_____	_____	_____	_____
Program Income (County)	_____	_____	_____	_____	_____
In-Kind Match (County)	_____	_____	_____	_____	_____
NET FISCAL IMPACT	<u>0</u>	<u>0</u>	_____	_____	_____
# ADDITIONAL FTE POSITIONS (Cumulative)	_____	_____	_____	_____	_____
Is Item Included in Current Budget?		Yes _____		No <u>X</u>	
Does this item include the use of federal funds?		Yes _____		No <u>X</u>	
Is this item using State Funds?		Yes <u>X</u>		No _____	

Budget Account No.:

Fund 3654 Department 381 Unit E466 Object _____ Program _____

B. Recommended Sources of Funds/Summary of Fiscal Impact:

DEP Purchase Order \$167,070.52
Environmental Resources Capital Projects Fund (3654)

C. Department Fiscal Review:

Shirley King 10/25/23

III. REVIEW COMMENTS

A. OFMB Fiscal and /or Contract Dev. and Control Comments:

Lucy Mante 11/6/23
OFMB PA 11/6/23

Dr. J. J. [Signature] 11/13/23
Contract Development & Control
Tad 11/13/23

B. Legal Sufficiency:

[Signature] 11/15/23
Assistant County Attorney

C. Other Department Review:

Department Director

AMENDMENT NUMBER 1
TO AGREEMENT BETWEEN PALM BEACH COUNTY AND
HEALTHY AQUATICS MARINE INSTITUTE OF FLORIDA,
INC. FOR A COST REIMBURSEMENT OF THE PHASE 4A
CORAL RESTORATION PROJECT

THIS FIRST AMENDMENT TO THE AGREEMENT is made and entered into the _____ day of _____, 2023, by and between Palm Beach County, a Political Subdivision of the State of Florida, by and through its Board of Commissioners ("**County**"), and Healthy Aquatics Marine Institute of Florida Inc., DBA The Reef Institute ("**Reef Institute**"), a not-for-profit entity, both being hereinafter referred to collectively as the "parties".

WITNESSETH:

WHEREAS, the Reef Institute and the County entered into an agreement (R2023-0944) on July 11, 2023 ("**Agreement**") for the Reef Institute to acquire and rear additional corals, study various treatments on captive corals, outplant corals to Palm Beach County reefs, and plan further nursery expansions, as part of their Phase 4A Coral Restoration Project, and where the County acts as a pass through agency between DEP and the Reef Institute to obtain cost reimbursement for those expenses through a DEP fixed price purchase order; and

WHEREAS, the DEP fixed price purchase order is being modified through a DEP change order to add six months of funding for Phase 4A of the Reef Institute's project; and

WHEREAS, the County and the Reef Institute desire to extend the term of the Agreement from December 31, 2023 to June 30, 2024, increase the amount of cost reimbursement from \$389,327.33 to \$555,147.84, and modify Exhibit A, the Project Work Plan, to reflect the DEP change order.

NOW, THEREFORE, in consideration of the promises and mutual covenants and conditions contained herein, the parties agree to modify the Agreement as follows:

1. The foregoing recitals are true and correct and are incorporated herein by reference. Terms not defined herein shall have the same meaning and effect as in the Agreement. Any reference to "Agreement" contained herein shall include all amendments thereto.
2. All references in the Agreement to the DEP fixed price purchase order ("PO") shall be amended to refer to the DEP change order ("CO").
3. Section 4(b) of the Agreement shall be amended as follows:
 - b) Submit deliverables to the County in the amount not to exceed ~~\$389,327.33~~ \$555,147.84 for costs that are incurred after July 11, 2023, for the Project as

described in Exhibit A.

4. Section 5(c) of the Agreement shall be amended as follows:

- c) The County shall pass funds from DEP's ~~PO~~ CO on to the Reef Institute for expenses as described in this Agreement, in the amount not to exceed ~~\$389,327.33~~ \$555,147.84, provided the Reef Institute completes the Project as described in Exhibit A and DEP approves the deliverables in accordance with the ~~PO~~ CO. Activities eligible for reimbursement include costs as described in Exhibit A, that are incurred after July 11, 2023.

5. Section 8 of the Agreement shall be amended as follows:

The term of this Agreement shall begin when executed by both parties and shall remain in effect from the effective date of this Agreement ("Term") until the termination date of the DEP CO, which is currently ~~December 31, 2023~~ June 30, 2024.

6. Exhibit A, Project Work Plan, of the Agreement is hereby deleted in its entirety and replaced with Exhibit A, attached hereto and incorporated herein.
7. All other terms and conditions of the Agreement, as amended shall remain the same.

The remainder of this page intentionally left blank

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment to the Agreement on the day and year first written above.

ATTEST:

PALM BEACH COUNTY

JOSEPH ABRUZZO
CLERK OF THE CIRCUIT
COURT AND COMPTROLLER

BOARD OF COUNTY COMMISSIONERS:
a political subdivision of the State of Florida


By: _____
Deputy Clerk

By: _____
Mayor

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

APPROVED AS TO TERMS
AND CONDITIONS

By: _____
Scott A. Stone
Assistant County Attorney

By:  _____
Deborah Drum, Department Director
Environmental Resources Management

The Reef Institute:

The Reef Institute,
a Florida not for profit corporation

By:  _____
Signature

Name: Leneita Fix
(type or print)

Title: Executive Director

WITNESS:


Signature

Jake Carmichael
Name (type or print)

WITNESS:


Signature

Shannon McDonnell
Name (type or print)

EXHIBIT A
PROJECT WORK PLAN

PROJECT TITLE: Pass through Florida Department of Environmental Protection (DEP) funding for the Phase 4A Coral Restoration Project: Intensive Closed Land-Based Coral Systems: for research, gene banking, and amplification.

PROJECT LOCATION: This project is located at The Reef Institute (TRI) in West Palm Beach, Palm Beach County, Florida. Latitude 26.735539/Longitude -80.055836. The Reef Institute is located in the neighborhood of Northwood Village. See Figure 1 for a location map.

PROJECT BACKGROUND: Florida's Coral Reef is currently experiencing a multi-year disease-related mortality event that has resulted in massive die-offs in multiple coral species. Approximately 21 species of coral, including both Endangered Species Act-listed and the primary reef-building species, have displayed tissue loss lesions, which often result in whole colony mortality. First observed near Virginia Key in late 2014, the disease has since spread to the northernmost extent of Florida's Coral Reef, and southwest past the Marquesas in the Lower Florida Keys. The best available information indicates that the disease outbreak is continuing to spread west and throughout the Caribbean.

To combat the outbreak and preserve the genetic diversity of Florida's Coral Reef, coral rescue efforts began in 2018 to collect and propagate healthy and disease-resilient corals for later outplanting on the natural reef. To accomplish this work, land-based coral nurseries are needed along with scientists and field staff with expertise in handling and maintaining corals. TRI is one of 25 land-based holding facilities involved in the Florida Coral Rescue and Propagation Project and is the only Florida Coral Rescue and Propagation Project member in Palm Beach County.

PROJECT DESCRIPTION: This is a multi-phase project. Phase 1 doubled the Reef Institute's coral holding capacity and was completed June 30, 2020. In Phase 2, TRI began housing and gene banking corals from the local reef and updated the land-based nursery per DEP suggestions. In Phase 3 TRI continued acquiring corals and started exploring outplanting options. The purpose of this Agreement is for the County to provide pass through funding from DEP to TRI for eligible Phase 4 expenses related to the tasks below. Each task is numbered according to the applicable task numbers in the DEP Change Order.

Task 5a: Coral Collection and Acquisition

Task Description: Continuing to work alongside the Florida Fish and Wildlife Conservation Commission (FWC), TRI will work to obtain coral larvae, juvenile corals, salvage corals or rescue corals from the State of Florida, as appropriate. TRI will continue to work with FWC to obtain any necessary permitting. Currently, TRI holds a Special Activities License (SAL) as a land-based nursery. This gives them the ability to collect gametes from the wild and transfer

corals as needed. TRI will apply for the permits to be able to obtain additional corals and work with existing permit holders on a broader rescue effort.

Coral collection will be an ongoing task in the land-based holding facilities until all vats are filled. Obtaining coral will require coordination with necessary agencies and FWC will work with TRI to place additional rescue and juvenile corals as situations arise. TRI will be collecting *Colpophyllia natans* (CNAT), *Diploria labyrinthiformis* (DLAB), or *Montastraea cavernosa* (MCAV) colonies from Peanut Island in the Lake Worth Lagoon as concerns about encroaching sedimentation worsen. These species are susceptible to Stony Coral Tissue Loss Disease (SCTLD) and will be collected as part of the Florida Coral Rescue and Propagation Project when sedimentation cannot be mitigated.

Coral collection with a special focus on priority species for juvenile rearing and grow-out will continue to be an ongoing task in TRI's land-based holding until all vats are filled. TRI will continue to receive coral larvae and juveniles for restoration efforts from the The Florida Aquarium (TFA), NOAA, the Florida Coral Rescue Center (FCRC) and University of North Carolina at Wilmington (UNCW). The Florida Rescue and Propagation Project team may also decide to ask TRI to be an intermediary facility and hold corals and/or larvae that need to be moved from other land-based facilities and corals that have spawned at TRI.

TRI has been working with the National Oceanic and Atmospheric Administration (NOAA), Mission Iconic Reefs, and the National Park Service to identify corals suffering from the mass bleaching event this summer in the Florida Keys. Due to unprecedented heat, NOAA and organizations in the Florida Keys decided to bring corals to land for gene banking efforts. TRI and Mote's Coral Gene Bank are the two organizations currently identified to take in corals for long-term holding. Other organizations will be taking corals in for temporary holding. These corals will continue to be brought to TRI as needed.

Task 5b: Coral holding and maintenance. Includes water quality monitoring, larval grow-out and husbandry for scaled efforts of adult colonies in the Florida Coral Rescue and Propagation Project and associated husbandry for emergency coral bleaching response.

Task Description: Currently, TRI is holding corals that arrived through multiple avenues including over 2,500 rescued corals that are six months or older. The first corals to arrive at TRI were salvage corals from Port Everglades. The species from this project include DLAB, *Siderastrea siderea* (SSID), *Pseudodiploria strigosa* (PSTR), *P. Clivosa* (PCLI), *Stephanoceaonia intersepta* (SINT), *Solenastrea bournoni* (SBOU), *Oculina diffusa* (ODIF), CNAT, and MCAV. Corals have come into TRI over the last three years in conjunction with the Florida Coral Rescue and Propagation Project. These colonies have been obtained from Fisher Island, Port Everglades, the U.S. Coast Guard Station in Key West, TFA, Mote Marine Labs, and the University of Miami. Species involved in the Florida Coral Rescue and Propagation Project are those that are susceptible to SCTLD and include: CNAT, DCYL, DSTO, DLAB, *Favia fragum* (FFRA), *Meandrina meandrites* (MMEA), MCAV, *Mycetophyllia aliciae* (MALI), OFAV, PCLI, PSTR, SBOU, and *Madracis auretenra* (MAUR).

These corals are being held in both indoor and outdoor units. In FY22/23, TRI moved one of its outdoor units into a temperature-controlled shipping container and will move additional outdoor units indoors in 23/24. This will address the Florida Coral Rescue and Propagation Project team's concerns regarding outdoor units in an urban setting.

TRI holds the most considerable quantity of FFRA of any holding facility involved in the Florida Coral Rescue and Propagation Project. These corals have spawned, and TRI is caring for the juveniles. One set of juveniles was outplanted in partnership with the University of Miami in May of 2023. TRI is also one of only three organizations holding DCYL on land. TRI staff have grown DCYL colonies in holding, including corals from MOTE Marine Lab and TFA.

TRI is also caring for hundreds of corals *Acropora palmata* (APAL), *Acropora cervicornis* (ACER), DCYL, and OFAV corals that are listed as threatened species under the U.S. Endangered Species Act. APAL, ACER, and DCYL are sensitive corals that take extra care in long-term holding. ACER and APAL, in particular, grow faster than other corals and need to be manicured and fragged more often than other species.

TRI has been working in larval settlement and grow out of larvae obtained from the TFA and NOAA since 2021 (e.g., CNAT and DLAB). In October of 2023, TRI will receive another 1,000-year-old DLAB from TFA to raise for grow-out. TRI has also been raising coral from settled larvae that were born at TFA in 2021, 2022 and 2023. These species include CNAT, PSTR, and PCLI.

Mike Tavares, TRI's Facility Director and Chief Aquarist, joined TFA staff for training in late August of 2023 on fertilization and settlement techniques. TRI also assisted the FCRC in working with MCAV and OFAV larval fertilization and will be rearing those corals for future outplanting efforts. Lastly, TRI has been working with Dr. Jennifer Sneed at the Smithsonian Marine Station on a project related to settlement cues and will be receiving the CNAT corals from that project once they have settled.

As part of this task, the health of all colonies held at TRI, included those collected as part of the 2023 emergency coral bleaching response, will be monitored daily. Corals will be target and broadcast fed concentrated phytoplankton mixes every other day and supplemented with amino acid and trace mineral additives daily. Feeding will be adjusted as needed. Water quality tests (temperature, pH, salinity, ammonia, phosphate, alkalinity, magnesium, calcium) will be performed four times a week with ICP tests being sent out monthly. Apex systems will be used as a backup to track trends of water quality as missed in human error. Updated equipment and probes will allow for more precise onsite water quality tests. Systems are cared for and corals are manicured from any encroaching algae or other pests. All information will be uploaded into the Florida Coral Rescue and Propagation Team database, "Tracks."

Every other month, coral colonies will be measured for growth using ImageJ software. Chemistry and lighting system settings will also be recorded so that systems may be configured to explore optimal conditions for growth.

Task 5d: Health Study on Captive Corals:

Task Description: As TRI utilizes a variety of antibiotics and pharmaceutical treatments when corals in long-term ex-situ care show signs of sickness, it is natural to create a trackable study to create best practices for future use in husbandry. Dr. Charles Gregory and Mike Tavares have been tracking health records and patterns for corals in captive bred care for two years. In 2023, TRI built a full hospital system for corals and both staff will be creating standard treatments and stabilizing care for captive bred corals that allow for better scalability and training. Dr. Gregory will be submitting papers to all appropriate agencies (DEP, FCRC) on the use of best methodologies in treating corals in captive, and support for care in the future. Additionally, an intern will help TRI organize data that has been recorded in treatment logs since 2019 when TRI began gene banking rescue corals. Through this, TRI staff will be able to study the long-term effects of various treatments specific to species.

Health research will focus on analyzing long-term effects of antibiotic and other pharmaceutical treatments on captive corals. The goal will be to advance standardized and affordable coral health diagnostic and treatment techniques.

Task 5e: Coral Outplanting and Monitoring:

Task Description: Coral restoration within the Palm Beach County section of the Kristin Jacobs Coral Reef Ecosystem Conservation Area (ECA) provides unique restoration challenges due to reef site depth, ocean currents, and predation issues. TRI is the first organization to outplant corals for restoration purposes within this area. All TRI outplanting activities are conducted as authorized pursuant to TRI's SAL and with support of Palm Beach County Environmental Resource Management (PBCERM) and the Florida Coral Rescue and Propagation Project team. The FWC SAL includes a number of requirements, including but not limited to genetic management of outplants, maintaining a Veterinary-Client-Patient-Relationship (VCPR) with a qualified coral veterinarian, and veterinary health certification for corals prior to outplanting. TRI began outplanting activities with a pilot outplant of juvenile CNAT corals (not funded by DEP and prior to FY 2023-2024). This pilot outplanting event occurred in the Lake Worth Beach area of Palm Beach County, in 50 feet of water, on natural reef. Monitoring of this pilot outplanting event will continue into FY 2023-2024. The data collected from this outplanting effort will inform additional outplanting activities as restoration efforts continue to ramp up in the northern end of the ECA.

TRI will conduct two additional outplanting events for FY 2023-2024, with 30-60 corals outplanted during each event. The first outplanting event will include a total of 30-60 corals of corals as deemed appropriate by both Palm Beach County and FWC. Prior to each outplanting event, the outplant plot will be delineated, transect lines will be laid, and site preparation will be conducted to include removal of sediment and algae, removal of benthic predator/competitor species, and other similar activities to create an ideal environment for successful outplanting. Once the site is prepared, corals will be outplanted approximately 3 inches apart and attached to the hardbottom using epoxy following direction provided by FWC and PBCERM. If these approaches need to change based on FWC guidance, they will be adjusted accordingly, and final plans will be shared in advance of dives.

After initial outplanting, corals will be monitored at one week, one month, three months, six months, and one year. During each monitoring event, health data and photographs of each coral are taken with a ruler for use with ImageJ, and water quality and light data will be collected using a HOBO and underwater PAR meter. TRI will note signs of stress indicators including (but not limited to) bleaching, disease, predation, and competition. TRI will additionally “manicure” the site by gently removing sediment and algae using a wire brush (methods utilized by FWC). Monitoring data will then be entered into Excel spreadsheets, with coral measurements determined using ImageJ.

Task 5f: Expansion Planning:

Task Description: TRI is at its capacity for indoor land-based systems and is starting to utilize the outdoor space for coral holding and propagation. As a short-term solution in FY22-23, a category 5 hurricane resistant shipping container was purchased and installed in the outdoor space and is starting to become retrofitted for coral spawning. Since this shipping container is outside, additional equipment and infrastructure is needed to regulate the temperatures.

TRI recognizes they are reaching their capacity and has begun exploring bigger commercial spaces (min. 5,000 sq. ft.) to grow and expand their efforts two-fold. This task will focus on the planning for this type of expansion and will include design and floor plans for a future re-location site. This will also require coordination with utility companies and contractors including electricians, plumbers, etc.

This type of move will require at least a year. Therefore, TRI will need to maintain both facilities during the transition. If/when a new space is identified and secured, TRI will prepare detailed design/floor plans and a phased migration plan prior to the start of buildout with a list of all equipment/materials/supplies needed. If buildout can begin during the service dates, this SOW and budget will be amended to include costs for purchasing the equipment and supplies previously identified.

Task 5g: Partner Coordination, Information Sharing, and Reporting:

Task Description: All meetings required to remain part of the Florida Coral Rescue and Propagation Project team will be attended and an electronic log kept and reported to DEP. This includes weekly meetings of the Florida Coral Holders, biweekly DAC meetings, monthly Restoration Team and Land-Based Spawning subgroups. Any additional meetings as required by the Florida Coral Rescue and Propagation Project will also be logged.

All information collected will be shared with DEP and FWC as it is collected and monitored for the Florida Coral Rescue & Propagation Project. All spreadsheets, photographs, and call logs from Tasks 5a-5b and Tasks 5d-5g will be submitted to Palm Beach County for submission to DEP. This task also includes all interim and final reporting associated with the project.

DELIVERABLES: Work completed as described in these tasks, as evidenced by the deliverables below for each task.

Task 5a Deliverables:

- Updates on Florida Coral Rescue and Propagation Project directives for collection and relocation of corals provided in Task 5g progress reports (DEP CO Exhibit A).
- Copies of all permit(s) for coral collections. Updates on permit acquisition.
- Copies of transfer paperwork, if appropriate and provided.
- Spreadsheet cataloguing all corals transferred into the care of TRI that are not a result of the emergency coral bleaching event.
- Spreadsheet cataloguing corals collected from the 2023 emergency coral bleaching event (to be provided starting September 1, 2023).
- Photos and documentation of all corals collected from the field. Photos should include pre- (if applicable) and post-relocation into land-based systems.
- Photos of all corals placed in the care of TRI by FWC as transferred from other facilities (if applicable).

Task 5b Deliverables:

- Spreadsheet cataloging all corals 6-months and older in tanks with the following data: (a) water quality test results; (b) treatment and health records (monthly); and (c) other pertinent growth and tracking data utilizing ImageJ, including individual sizes of all rescue corals. All corals not in the rescue project will have representative measurements (every other month).
- Spreadsheet cataloguing corals collected from the emergency coral bleaching event with the following data: (a) treatment and health records (monthly); and (b) other pertinent growth and tracking data utilizing ImageJ, including individual sizes of all bleaching corals of a representative sample (~50 corals) will be collected every other month.
- Representative photographs that document the condition of each rescue colony throughout its time in captivity, submitted electronically. Group photos will be provided for all other [non-rescue] corals including the bleaching response corals.
- Treatment logs of all medical treatments or concerns of corals.
- Information will be included in TRI's Task 5g progress reports and provided to the Smithsonian for their data needs.

Task 5d Deliverables:

- Excel sheet of monthly tracking and data of all medications used, organized by coral species.
- Data on collaborations with other facilities on use of antibiotic and pharmaceutical treatments. Will also include write-ups of treatment trials as sickness presents in land-based coral care within Task 5g progress reports (DEP CO Exhibit A).
- Final report with data on long-term effects of antibiotic and pharmaceutical use with recommendations for best practices.

Task 5e Deliverables:

- Copies of all permit(s) including any amendments to conduct outplanting.
- Proof of consultation with the Florida Coral Rescue & Propagation Team prior to scheduling outplanting events with Rescue corals or offspring.
- Spreadsheet cataloging all corals outplanted including dates, location/coordinates, and condition.
- Spreadsheets with all data collected from the one week, one month, three months, six months, and one year monitoring events (note: data from certain monitoring intervals may not be available following each outplanting event. It will depend on the dates of outplanting). Temperature, water quality, and PAR data will also be collected at the site. Spreadsheet should also document any stressors or health concerns including bleaching, disease, or predation.
- Representative photos of outplants at time of outplanting, and photos of the same corals during each monitoring event.
- Confirmation that monitoring data has been shared with the Florida Coral Rescue & Propagation Team and other partners, as appropriate.

Task 5f Deliverables:

- Photos of all potential commercial spaces considered for expansion.
- Detailed design/floor plans including a phased migration plan prior to the start of buildout (once a space is identified and secured).
- List of all equipment/materials/supplies needed including costs (this should also include any recommendations from contractors).

Task 5g Deliverable(s):

- Progress report of all tasks, next steps, and deliverables submitted (DEP CO Exhibit A) – Monthly from July 2023 to December 2023. Every other month from January 2024 to June 2024 (February, April, June).
- Submit photo (.jpeg format) and short summary about project milestones for social media purposes – Monthly from July 2023 to December 2023. Every other month from January 2024 to June 2024 (February, April, June).
- Electronic log of AZA, rescue partner, DAC, Restoration Team calls outlining participation and contribution to the collaborative effort – Monthly from July 2023 to December 2023. Every other month from January 2024 to June 2024 (February, April, June).
- Facility tours to all relevant stakeholders including collaborators, as needed.
- At the end of the project submit:

- PowerPoint slide(s) with photos and a manager-level summary (300 words or less) of the main findings of this project and how it contributes to furthering coral reef conservation or disease response goals (minimum of 1 slide, but up to 3).
- Draft and Final Report summarizing project activities during the project period, husbandry lessons learned, and any corals being housed.

All deliverables shall be submitted electronically unless otherwise indicated. All raw data acquired for this project must be submitted to DEP via PBCERM at the end of the project.

When submitting photo deliverables (in .jpeg format), a consistent naming convention and organizational structure must be used that includes the date, site name, and any other relevant information. A separate folder shall also be created with a smaller subset of photos (5-15 total) that best highlight the overall project and can be used for communication pieces and/or messaging. All final deliverable(s) must comply with Section 508 of the U.S. Rehabilitation Act (as amended), Florida Statute Chapter 282, and Florida Administrative Code (FAC) Rule: 60-8.002.

Any maps, graphics, charts, or other deliverables intended to communicate information should include the following: title and/or appropriate explanation of the visual being presented, consistent scale bar, north arrow and key, and clearly labeled county lines (if applicable).

TRI must notify PBCERM and DEP when data from this project will be published. All deliverables, presentations, and social media posts will acknowledge the financial assistance provided by DEP's Coral Protection and Restoration Program.

Final Reports must include this disclaimer on cover or 2nd page of report: The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of the State of Florida, the Florida Department of Environmental Protection, or Palm Beach County.

PERFORMANCE STANDARD: The County's Agreement Manager will review the deliverables to verify that they meet the specifications in the Project Work Plan and associated task description.

Funding will not be awarded unless work has been coordinated and permitted by the appropriate local, state, and federal agencies (if required) and all permit conditions are met throughout the duration of the project.

PAYMENT REQUEST SCHEDULE: Task deliverables must be submitted as described below, via one comprehensive e-mail that contains all task deliverables and a deliverable submission form. Deliverables must be approved by the County and DEP prior to payment request. Therefore, all deliverables must be submitted to Palm Beach County at least one week prior to each due date reflected in the table below. Final deliverables will be due to Palm Beach County by June 1, 2024 for submission to DEP by June 15, 2024.

PROJECT TIMELINE & BUDGET DETAIL: Tasks must be completed by the task end date and all deliverables received by the corresponding deliverable due date. The County shall send

the deliverables to DEP for approval. Upon DEP approval of the deliverables, the County will make payment to TRI.

Timeline:

July 11, 2023 – December 31, 2023				
Task #	Task Short Name	Details of Task	Service Dates	Task Amounts
5a	Coral Collection and Acquisition	Coordinate with the Florida Coral Rescue & Propagation Project to obtain coral and larvae. Coordinate with FWC to obtain permit(s) for coral collections/holding.	07/11/2023 – 12/31/2023	\$16,898.35
5b	Coral Holding and Maintenance	Track treatment and health records for each coral held. Perform coral husbandry and water testing. Catalog/document all corals in tank. Photograph the condition of each colony throughout its time in captivity. Track coral growth.	07/11/2023 – 12/31/2023	\$195,119.82
5d	Health Study on Captive Corals	Conduct health studies on corals in captivity on the long-term effects of the use of pharmaceuticals and antibiotics. Organize data collected in treatment logs since 2019 when TRI began gene banking rescue corals. Study long-term effects of various treatments specific to species.	07/11/2023 – 12/31/2023	\$20,347.12
5e	Coral Outplanting and Monitoring	Outplant at least one set of 30-60 corals in coordination with Palm Beach County, FWC, and the Florida Coral Rescue & Propagation Project. Monitor outplant sites at 1-week, 1-month, 3-month, 6-month, and 1-year intervals.	07/11/2023 – 12/31/2023	\$82,366.85
5f	Expansion Planning	In preparation to move their current facility to scale and expand space, TRI will secure a location, create a floor plan and material list, and hire electricians and plumbers to prepare facility for new build out and move.	07/11/2023 – 12/31/2023	\$39,697.61
5g	Reporting	Document project by updating electronic log of AZA, DAC, rescue partner calls, and all other pertinent coral calls and meetings outlining participation and contribution to the collaborative effort. Write monthly progress report of completed tasks and next steps, summarizing the data collected and the health status of the rescue corals.	07/11/2023 – 12/31/2023	\$34,897.58

January 1, 2024 – June 15, 2024

5a	Coral Collection and Acquisition	Coordinate with the Florida Coral Rescue & Propagation Project to obtain coral and larvae. Coordinate with FWC to obtain permit(s) for coral collections/holding.	1/1/2024 – 4/30/2024	\$7,835.57
5b	Coral Holding and Maintenance	Track treatment and health records for each coral held. Perform coral husbandry and water testing. Catalog/document all corals in tank. Photograph the condition of each colony throughout its time in captivity. Track coral growth.	1/1/2024 – 4/30/2024	\$57,697.65
5e	Coral Outplanting and Monitoring	Outplant at least one set of 30-60 corals in coordination with Palm Beach County, FWC, and the Florida Coral Rescue & Propagation Project. Monitor outplant sites at 1-week, 1-month, 3-month, 6-month, and 1-year intervals.	1/1/2024 – 4/30/2024	\$28,840.75
5g	Reporting	Document project by updating electronic log of AZA, DAC, rescue partner calls, and all other pertinent coral calls and meetings outlining participation and contribution to the collaborative effort. Write bi-monthly progress report of completed tasks and next steps, summarizing the data collected and the health status of the rescue corals. Write final report.	1/1/2024 – 4/30/2024	\$6,064.89
5a	Coral Collection and Acquisition	Coordinate with the Florida Coral Rescue & Propagation Project to obtain coral and larvae. Coordinate with FWC to obtain permit(s) for coral collections/holding.	5/1/2024 – 6/1/2024	\$3,917.78
5b	Coral Holding and Maintenance	Track treatment and health records for each coral held. Perform coral husbandry and water testing. Catalog/document all corals in tank. Photograph the condition of each colony throughout its time in captivity. Track coral growth.	5/1/2024 – 6/1/2024	\$28,848.82
5e	Coral Outplanting and Monitoring	Outplant at least one set of 30-60 corals in coordination with Palm Beach County, FWC, and the Florida Coral Rescue & Propagation Project. Monitor outplant sites at 1-week, 1-month, 3-month, 6-month, and 1-year intervals.	5/1/2024 – 6/1/2024	\$14,420.38
5g	Reporting	Document project by updating electronic log of AZA, DAC, rescue partner calls, and all other pertinent coral calls and meetings outlining participation and contribution to the collaborative effort. Write progress report of completed tasks and next steps, summarizing the data collected and the health status of the rescue corals. Write final report.	5/1/2024 – 6/1/2024	\$18,194.67

Deliverable Dates & Invoice Amounts:

July 11, 2023 – December 31, 2023				
Task #	Frequency	Deliverables	Due Date	Invoice Amount
5a-b, d-g	Deliverables Due Monthly	<p>Task 5a:</p> <ul style="list-style-type: none"> - Updates on Florida Coral Rescue and Propagation Project directives for collection and relocation of corals provided in Task 5g progress reports (DEP CO Exhibit A). - Copies of all permit(s) for coral collections. Updates on permit acquisition. - Copies of transfer paperwork, if appropriate and provided. - Spreadsheet cataloguing all corals transferred into the care of TRI that are not a result of the emergency coral bleaching event - Spreadsheet cataloguing corals collected from the emergency coral bleaching event (to be provided starting September 1, 2023). - Photos and documentation of all corals collected from the field. Photos should include pre- (if applicable) and post-relocation into land-based systems. - Photos of all corals placed in the care of TRI by FWC as transferred from other facilities (if applicable). <p>Task 5b:</p> <ul style="list-style-type: none"> - Spreadsheet cataloging all corals 6-months and older in tanks with the following data: (a) water quality test results; (b) treatment and health records (monthly); and (c) other pertinent growth and tracking data utilizing ImageJ, including individual sizes of all rescue corals. All corals not in the rescue project will have representative measurements. (every other month) - Spreadsheet cataloguing corals collected from the 2023 emergency coral bleaching event with the following data: (a) treatment and health records; and (b) other pertinent growth and tracking (to be submitting starting September 1) - Representative photographs that document the condition of each colony throughout its time in captivity, submitted electronically. Group photos will be provided for all other [non-rescue] corals including the bleaching response corals (to be submitted starting September 1). - Treatment logs of all medical treatments or concerns of corals. - Information will be included in TRI's Task 5g progress reports and provided to the Smithsonian for their data needs. <p>Task 5d:</p> <ul style="list-style-type: none"> - Excel sheet of monthly tracking and data of all medications used, organized by coral species. - Data on collaborations with other facilities on use of antibiotic and pharmaceutical treatments. Will also include write-ups of treatment trials as sickness presents in land-based 	<p>Last Day of Each Month:</p> <p style="text-align: center;">July 31</p> <p style="text-align: center;">August 31</p> <p style="text-align: center;">September 30</p> <p style="text-align: center;">October 31</p> <p style="text-align: center;">November 30</p>	<p style="text-align: right;">\$64,887.79/ month x 5 months (July- November) =</p> <p style="text-align: right;">\$324,438.95</p>

		<p>coral care within Task 5g progress reports (DEP CO Exhibit A).</p> <ul style="list-style-type: none"> - Final report with data on long-term effects of antibiotic and pharmaceutical use with recommendations for best practices. <p>Task 5e</p> <ul style="list-style-type: none"> - Copies of all permit(s) including any amendments to conduct outplanting. - Proof of consultation with the Florida Coral Rescue & Propagation Project team prior to scheduling outplanting events with Rescue corals or offspring. - Spreadsheet cataloguing all corals outplanted including dates, location/coordinates, and condition. - Spreadsheets with all data collected from the one week, one month, three months, six months, and one year monitoring events (note: data from certain monitoring intervals may not be available following each outplanting event. It will depend on the dates of outplanting). Temperature, water quality, and PAR data will also be collected at the site. Spreadsheet should also document any stressors or health concerns including bleaching, disease, or predation. - Representative photos of outplants at time of outplanting, and photos of the same corals during each monitoring event. - Confirmation that data has been shared with the Florida Coral Rescue and Propagation Project team and other partners, as appropriate. <p>Task 5f</p> <ul style="list-style-type: none"> - Photos of all potential commercial spaces considered for expansion. - Detailed design/floor plans including a phased migration plan prior to the start of buildout (once a space is identified and secured). - List of all equipment/materials/supplies needed including costs (this should also include any recommendations from contractors). <p>Task 5g</p> <ul style="list-style-type: none"> - Monthly: Progress report of all tasks, next steps, and deliverables submitted (DEP CO Exhibit A). - Monthly: Submit photo (.jpeg format) and short summary about project milestones for social media purposes. - Monthly: Electronic log of AZA, rescue partner, DAC, Restoration Team calls outlining participation and contribution to the collaborative effort. - Facility tours to all relevant stakeholders including collaborators, as needed. 		
5a-b, d-g	Deliverables Due Monthly	Same Deliverables as listed above.	December 31, 2023	\$64,888.38

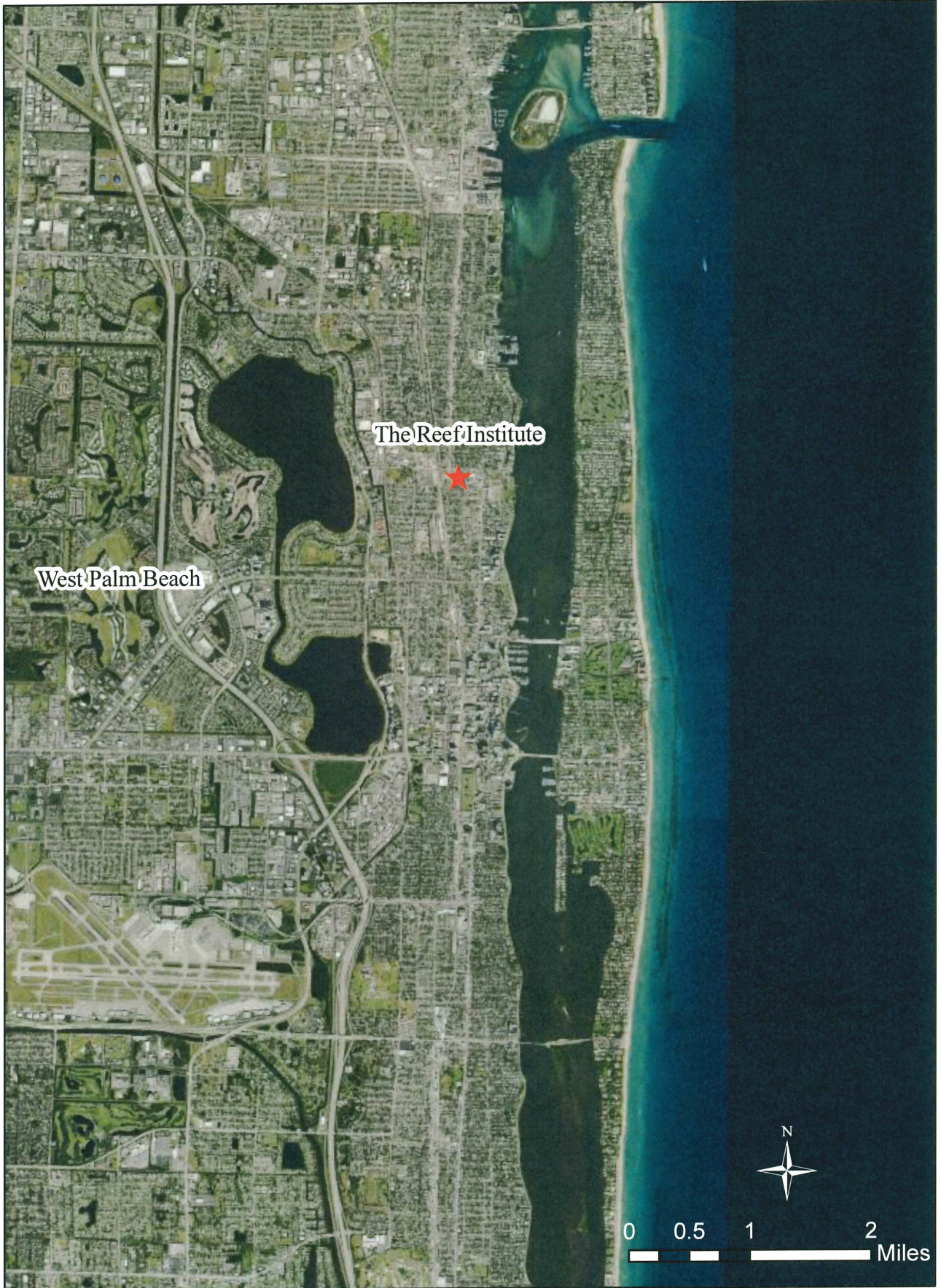
January 1, 2024 – June 1, 2024

<p>5a, 5b, 5e, 5g</p>	<p>Deliverables Due Bi- Monthly</p>	<p>Task 5a:</p> <ul style="list-style-type: none"> - Updates on Florida Coral Rescue and Propagation Project directives for collection and relocation of corals provided in Task 5g progress reports (DEP CO Exhibit A). - Copies of all permit(s) for coral collections. Updates on permit acquisition. - Copies of transfer paperwork, if appropriate and provided. - Spreadsheet cataloging all corals transferred into the care of TRI that are not a result of the emergency coral bleaching event - Spreadsheet cataloging corals collected from the emergency coral bleaching event (to be provided September 1, 2023). - Photos and documentation of all corals collected from the field. Photos should include pre- (if applicable) and post-relocation into land-based systems. - Photos of all corals placed in the care of TRI by FWC as transferred from other facilities (if applicable). <p>Task 5b:</p> <ul style="list-style-type: none"> - Spreadsheet cataloging all corals 6-months and older in tanks with the following data: (a) water quality test results; (b) treatment and health records (monthly); and (c) other pertinent growth and tracking data utilizing ImageJ, including individual sizes of all rescue corals. All corals not in the rescue project will have representative measurements. (every other month) - Spreadsheet cataloging corals collected from the 2023 emergency coral bleaching event with the following data: (a) treatment and health records; and (b) other pertinent growth and tracking (to be submitted starting September 1) - Representative photographs that document the condition of each colony throughout its time in captivity, submitted electronically. Group photos will be provided for all other [non-rescue] corals including the bleaching response corals (to be submitted starting September 1). - Treatment logs of all medical treatments or concerns of corals. - Information will be included in TRI's Task 5g progress reports (DEP CO Exhibit A), and provided to the Smithsonian for their data needs. <p>Task 5e</p> <ul style="list-style-type: none"> - Copies of all permit(s) to conduct outplanting. - Spreadsheet cataloging all corals outplanted including dates, location/coordinates, and condition. - Spreadsheet cataloging all corals outplanted including dates, location/coordinates, and condition. - Spreadsheet with all data collected from the one week and then monthly checks. Temperature, water quality, and par data will also be collected at the site. Spreadsheet should also document any stressors or health concerns including bleaching, disease, or predation. 	<p>Last Day of Each Month: February 28 April 30</p>	<p>\$50,219.43 / 2- month period x 2 periods = \$100,438.86</p>
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		<ul style="list-style-type: none"> - Representative photos of initial outplants and at each monitoring interval. Confirmation that data has been shared with the Florida Coral Rescue & Propagation Team and other partners, as appropriate. <p>Task 5g:</p> <ul style="list-style-type: none"> - Bi-monthly: Progress report of all tasks, next steps, and deliverables submitted (DEP CO Exhibit A). - Bi-monthly: Submit photo (.jpeg format) and short summary about project milestones for social media purposes. - Bi-monthly: Electronic log of AZA, rescue partner, DAC, Restoration Team calls outlining participation and contribution to the collaborative effort. - Facility tours to all relevant stakeholders including collaborators, as needed. 		
5a, 5b, 5e, 5g	Final Deliverables Due	<p>Task 5a:</p> <ul style="list-style-type: none"> - Updates on Florida Coral Rescue and Propagation Project directives for collection and relocation of corals provided in Task 5g progress reports (DEP CO Exhibit A). - Copies of all permit(s) for coral collections. Updates on permit acquisition. - Copies of transfer paperwork, if appropriate and provided. - Spreadsheet cataloging all corals transferred into the care of TRI that are not a result of the 2023 emergency coral bleaching event - Spreadsheet cataloging corals collected from the emergency coral bleaching event (to be provided September 1, 2023). - Photos and documentation of all corals collected from the field. Photos should include pre- (if applicable) and post-relocation into land-based systems. - Photos of all corals placed in the care of TRI by FWC as transferred from other facilities (if applicable). <p>Task 5b:</p> <ul style="list-style-type: none"> - Spreadsheet cataloging all corals 6-months and older in tanks with the following data: (a) water quality test results; (b) treatment and health records (monthly); and (c) other pertinent growth and tracking data utilizing ImageJ, including individual sizes of all rescue corals. All corals not in the rescue project will have representative measurements. (every other month) - Spreadsheet cataloging corals collected from the emergency coral bleaching event with the following data: (a) treatment and health records; and (b) other pertinent growth and tracking (to be submitted starting September 1) - Representative photographs that document the condition of each colony throughout its time in captivity, submitted electronically. Group photos will be provided for all other [non-rescue] corals including the bleaching response corals (to be submitted starting September 1). - Treatment logs of all medical treatments or concerns of corals. 	June 1, 2024	\$65,381.65

	<p>Task 5e</p> <ul style="list-style-type: none"> - Copies of all permit(s) to conduct outplanting. Spreadsheet cataloguing all corals outplanted including dates, location/coordinates, and condition. - Spreadsheet cataloguing all corals outplanted including dates, location/coordinates, and condition. - Spreadsheet with all data collected from the one week and then monthly checks. Temperature, water quality, and par data will also be collected at the site. Spreadsheet should also document any stressors or health concerns including bleaching, disease, or predation. - Representative photos of initial outplants and at each monitoring interval. Confirmation that data has been shared with the Florida Coral Rescue & Propagation Team and other partners, as appropriate. <p>Task 5g:</p> <ul style="list-style-type: none"> - Progress report of all tasks, next steps, and deliverables submitted (DEP CO Exhibit A). - Electronic log of AZA, rescue partner, DAC, Restoration Team calls outlining participation and contribution to the collaborative effort. - Facility tours to all relevant stakeholders including collaborators, as needed. - PowerPoint slide(s) with photos and a manager-level summary (300 words or less) of the main findings of this project and how it contributes to furthering coral reef conservation or disease response goals (minimum of 1 slide, but up to 3). - Draft and Final Report summarizing project activities during the project period, husbandry lessons learned, and any corals being housed. 		
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Figure 1.



11/2/23, 9:43 AM

Change Order C1A5A7

CHANGED: ORDER NO. C1A5A7

Issued on Tuesday, October 31, 2023 EDT
 Created on Tuesday, October 31, 2023 EDT by Kristi Kerrigan

SUPPLIER:
 Palm Beach County/ERM
 2300 N. Jog Rd., 4th Floor
 West Palm Beach, FL 33411-2743
 United States
 Phone: +1 561-233-2422
 Contact: Gretel Sarmiento

TOTAL AMOUNT
\$599,467.45000 USD

BILL TO:
 DEP-ORCP-Coral Protection and Restoration Program
 8000 North Ocean Dr
 Dania Beach, FL 33004
 United States

VersionNumber: 5
PUI:
 ID: 3700
 Name: 3700 - Florida Department of Environmental Protection
 PO Start Date: Saturday, July 1, 2023 GMT
 PO End Date: Sunday, June 30, 2024 GMT
Site Code:
 ID: 370000-10
 Name: 10
 Encumber Funds: Yes
 Entity Description: Department of Environmental Protection
 Requester: Kristi Kerrigan
 PR No.: PR247023-V5
 Method of Procurement: L - Governmental agency [s 287.057(3)(e)12 F.S., defined in s 163.3164(21), F.S.]
 Shipping Method: Best Way
 State Contract ID:
 Prime Vendor:
 incoTerm:

LINE ITEM DETAILS (3 LINE ITEMS)

NO.	ACTION	DESCRIPTION	PART NUMBER	QTY	NEED-BY DATE	UNIT PRICE	AMOUNT	ORDER CONFIRMATION STATUS
1	Unmodified	[Palm Beach County] This is a fixed-cost ...		43,069.6 Dollar	-	\$1.00000 USD	\$43,069.60000 USD	Unconfirmed

Full Description: [Palm Beach County] This is a fixed-cost agreement.

The goals of this project are to:
 1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
 2) to increase stony coral populations and species diversity on Palm Beach County's natural reefs,
 3) to monitor restored reefs for survival, health, and predation,
 4) to lessen the impacts of marine debris on local reefs, and
 5) to support coral propagation, restoration and expansion efforts of the The Reef Institute (subcontractor) per the attached Scope of Work.

Task 1: Prioritize restoration sites by analyzing current research and surveying specific reef sites (\$9,227.32);
 Task 2: Lead dive efforts to outplant at least 50 stony corals to three distinct offshore reef areas (\$13,119.67);
 Task 3: Complete follow-up monitoring on outplant sites (\$9,184.24);
 Task 4: Thoroughly clean up at least five natural reef sites (\$6,687.21);
 Task 5a-g: Intensive Closed Land-Based Coral Systems: for research, gene banking, and amplification: Phase 4A (The Reef Institute - \$391,827.33);
 Task 6: Reporting (\$2,351.16).

Invoice and Deliverable Schedule:
 (Refer to attached Scope of Work for details)
 - July 31, 2023: Task 5a-g (\$64,887.79);
 - August 31, 2023: Task 5a-g (\$64,887.79);
 - September 30, 2023: Task 5a-g (\$64,887.79);
 - October 31, 2023: Tasks 1-6 (\$65,475.58);

11/2/23, 9:43 AM

Change Order C1A5A7

- November 30, 2023: Task 5a-g (\$64,887.79);
- December 31, 2023: Tasks 1-6 (\$82,666.48);
- April 15, 2024: Tasks 2-4, 6 (\$0)
- June 15, 2024: Tasks 2-4, 6 (\$24,703.71).

To be paid upon completion of services, DEP acceptance, and receipt of itemized invoice. Partial payments allowed. In the event that services rendered are not deemed satisfactory, the Contractor shall re-perform the work needed to ensure satisfactory service, at no additional cost to the Department. Failure to provide all services, or failure to provide services which are satisfactory, shall result in non-payment or termination of the Contract.

SHIP TO:

DEP-ORCP-Coral Protection and Restoration Program
 8000 North Ocean Dr
 Dania Beach, FL 33004
 United States

DELIVER TO:

Kristi Kerrigan
 Organization Code:
 Description: CORAL PROTECTION AND RESTORATION
 Expansion Opt:
 Description:
 Object Code:
 Description: CONTRACTED SERVICES - OTHER
 Transaction Fee Exempt?: Yes
 Transaction Fee Exempt Reason: 3E - Transaction with another Governmental Agency

Req. Line No.: 1

NO.	ACTION	DESCRIPTION	PART NUMBER	QTY	NEED-BY DATE	UNIT PRICE	AMOUNT	ORDER CONFIRMATION STATUS
2	Unmodified	[The Reef Institute] This is a fixed-cost ...		389,327.33 Dollar	-	\$1.00000 USD	\$389,327.33000 USD	Unconfirmed

Full Description: [The Reef Institute] This is a fixed-cost agreement.

The goals of this project are to:

- 1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
- 2) to increase stony coral populations and species diversity on Palm Beach County's natural reefs,
- 3) to monitor restored reefs for survival, health, and predation,
- 4) to lessen the impacts of marine debris on local reefs, and
- 5) to support coral propagation, restoration and expansion efforts of the The Reef Institute (subcontractor) per the attached Scope of Work.

- Task 1: Prioritize restoration sites by analyzing current research and surveying specific reef sites (\$8,034.79);
- Task 2: Lead dive efforts to outplant at least 50 stony corals to three distinct offshore reef areas (\$13,027.16);
- Task 3: Complete follow-up monitoring on outplant sites (\$10,561.83);
- Task 4: Thoroughly clean up at least five natural reef sites (\$6,594.68);
- Task 5a-g: Intensive Closed Land-Based Coral Systems: for research, gene banking, and amplification: Phase 4A (The Reef Institute - \$391,827.33);
- Task 6: Reporting (\$2,351.16).

Invoice and Deliverable Schedule:

- (Refer to attached Scope of Work for details):
- July 31, 2023: Task 5a-g (\$64,887.79);
 - August 31, 2023: Task 5a-g (\$64,887.79);
 - September 30, 2023: Task 5a-g (\$64,887.79);
 - October 31, 2023: Tasks 1-6 (\$65,475.58);
 - November 30, 2023: Task 5a-g (\$64,887.79);
 - December 31, 2023: Tasks 1-6 (\$82,666.48);
 - April 15, 2024: Tasks 2-4, 6 (\$0)
 - June 15, 2024: Tasks 2-4, 6 (\$24,703.71).

To be paid upon completion of services, DEP acceptance, and receipt of itemized invoice. Partial payments allowed. In the event that services rendered are not deemed satisfactory, the Contractor shall re-perform the work needed to ensure satisfactory service, at no additional cost to the Department. Failure to provide all services, or failure to provide services which are satisfactory, shall result in non-payment or termination of the Contract.

SHIP TO:

DEP-ORCP-Coral Reef Conservation Program (WPB)
 3301 Gun Club Road, B2

11/2/23, 9:43 AM

Change Order C1A5A7

B2
West Palm Beach, FL 33406
United States

DELIVER TO:
Kristi Kerrigan

Organization Code:
Description: CORAL PROTECTION AND RESTORATION

Expansion Opt:
Description:

Object Code:
Description: CONTRACTED SERVICES - OTHER

Transaction Fee Exempt?: Yes
Transaction Fee Exempt Reason: 3E - Transaction with another Governmental Agency

Req. Line No.: 2

NO.	ACTION	DESCRIPTION	PART NUMBER	QTY	NEED-BY DATE	UNIT PRICE	AMOUNT	ORDER CONFIRMATION STATUS
3	Added	[AG - added funds] This is a fixed-cost ...		167,070.52 Dollar	-	\$1.00000 USD	\$167,070.52000 USD	Unconfirmed

Full Description: [AG - added funds] This is a fixed-cost agreement. Please refer to *Updated* Scope of Work titled "PBC+TRI_Scope of Work_change order 4_clean".

- The goals of this project are to:
- 1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
 - 2) to increase stony coral populations and species diversity on Palm Beach County's natural reefs,
 - 3) to monitor restored reefs for survival, health, and predation,
 - 4) to lessen the impacts of marine debris on local reefs, and
 - 5) to support coral propagation, restoration and expansion efforts of the The Reef Institute (subcontractor) per the attached Scope of Work.

- Task 1: Prioritize restoration sites by analyzing current research and surveying specific reef sites (\$9,227.32);
- Task 2: Lead dive efforts to outplant at least 50 stony corals to three distinct offshore reef areas (\$13,119.67);
- Task 3: Complete follow-up monitoring on outplant sites (\$9,184.24);
- Task 4: Thoroughly clean up at least five natural reef sites (\$6,687.22);
- Task 5a-g: Intensive Closed Land-Based Coral Systems: for research, gene banking, and amplification: Phase 4A (The Reef Institute - \$558,897.84);
- Task 6: Reporting (\$2,351.16).

- Invoice and Deliverable Schedule:
(Refer to attached Scope of Work for details):
- July 31, 2023: Task 5a-b, d-g (\$64,887.79);
 - August 31, 2023: Task 5a-b, d-g (\$64,887.79);
 - September 30, 2023: Task 5a-b, d-g (\$64,887.79);
 - October 31, 2023: Tasks 1-6 (\$64,887.79);
 - November 30, 2023: Task 5a-b, d-g (\$64,887.79);
 - December 31, 2023: Tasks 1-6 (\$76,521.22);
 - February 28, 2024: Tasks 5a-b, e-g (\$50,219.43)
 - March 31, 2024: Tasks 1-6 (\$0)
 - April 30, 2024: Tasks 5a-b, e-g (\$50,219.43)
 - June 15, 2024: Tasks 1-6 (\$98,068.42).

To be paid upon completion of services, DEP acceptance, and receipt of itemized invoice. Partial payments allowed. In the event that services rendered are not deemed satisfactory, the Contractor shall re-perform the work needed to ensure satisfactory service, at no additional cost to the Department. Failure to provide all services, or failure to provide services which are satisfactory, shall result in non-payment or termination of the Contract.

SHIP TO:
DEP-ORCP-Coral Reef Conservation Program (WPB)
3301 Gun Club Road, B2
B2
West Palm Beach, FL 33406
United States

DELIVER TO:
Kristi Kerrigan
Organization Code:
Description: CORAL PROTECTION AND RESTORATION
Expansion Opt:

11/2/23, 9:43 AM

Change Order C1A5A7

Description:

Object Code:

Description: CONTRACTED SERVICES - OTHER

Transaction Fee Exempt?: Yes

Transaction Fee Exempt Reason: 3E - Transaction with another Governmental Agency

Req. Line No.: 3

TOTAL AMOUNT
\$599,467.45000 USD

Changes

- ERP Order ContentLength changed from 90909 to 118047
- ERP Order Total ordered changed from \$432,396.93000 USD to \$599,467.45000 USD
- ERP Order Time Created changed from Tue, 19 Sep, 2023 to Tue, 31 Oct, 2023
- ERP Order Date changed from Tue, 19 Sep, 2023 to Mon, 23 Oct, 2023
- ERP Order Filename changed from PBC+TRL_Scope of Work_change order 3_9.19.23_clean.docx to PBC+TRL_Scope of Work_change order 4_clean.docx
- Line Item 3 was added
- Line Item [Baseld 1803294041711 AAAAAE9aPcs2Zv n0f6pnqn.8t] was deleted
- ERP Order ContentLength changed from 89338 to 90909
- ERP Order Time Created changed from Thu, 31 Aug, 2023 to Tue, 19 Sep, 2023
- ERP Order ReEncryptDate changed from Tue, 12 Sep, 2023 to (no value)
- ERP Order ReEncryptDate changed from Sat, 16 Sep, 2023 to (no value)
- ERP Order ReEncryptDate changed from Sat, 16 Sep, 2023 to (no value)
- ERP Order ReEncryptDate changed from Tue, 12 Sep, 2023 to (no value)
- ERP Order ReEncryptDate changed from Sat, 16 Sep, 2023 to (no value)
- ERP Order Date changed from Thu, 31 Aug, 2023 to Tue, 19 Sep, 2023
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- Line Item [Baseld 1700282551059 AAAAAE9YgvMsT lp3kbwur.8t] was deleted
- ERP Order ContentLength changed from 90711 to 89338
- ERP Order Time Created changed from Thu, 27 Jul, 2023 to Thu, 31 Aug, 2023
- ERP Order Date changed from Wed, 19 Jul, 2023 to Thu, 31 Aug, 2023
- ERP Order Filename changed from PBC+TRL_Scope of Work_4.27.23_v6 2023.07.19_FINAL.docx to PBC+TRL_Scope of Work_change order 2_8.31.23_clean.docx
- Line Item [Baseld 1654152814867 AAAAAE9YEjMOET I3wnvklv.8t] was deleted
- ERP Order ContentLength changed from 95895 to 379979
- ERP Order ContentLength changed from 379979 to 90711
- ERP Order PO Start Date changed from Thu, 1 Jun, 2023 to Sat, 1 Jul, 2023
- ERP Order Time Created changed from Wed, 3 May, 2023 to Thu, 27 Jul, 2023
- ERP Order Date changed from Tue, 2 May, 2023 to Tue, 2 May, 2023
- ERP Order Date changed from Tue, 2 May, 2023 to Wed, 19 Jul, 2023
- ERP Order CloudAttachmentMetadata changed from (no value) to (no value)
- ERP Order CloudFileid changed from (no value) to (no value)
- ERP Order CloudAttachmentMetadata changed from (no value) to (no value)
- ERP Order CloudFileid changed from (no value) to (no value)
- ERP Order CloudAttachmentMetadata changed from (no value) to (no value)
- ERP Order CloudFileid changed from (no value) to (no value)
- ERP Order Filename changed from PBC+TRL_Scope of Work_4.27.23_v4_FINAL.docx to Invoice Example.pdf
- ERP Order Extension changed from docx to pdf
- ERP Order ContentType changed from application/vnd.openxmlformats-officedocument.wordprocessingml.document to application/pdf
- ERP Order CloudAttachmentMetadata changed from (no value) to (no value)
- ERP Order CloudFileid changed from (no value) to (no value)
- ERP Order Filename changed from Invoice Example.pdf to PBC+TRL_Scope of Work_4.27.23_v6 2023.07.19_FINAL.docx
- ERP Order Extension changed from pdf to docx
- ERP Order ContentType changed from application/pdf to application/vnd.openxmlformats-officedocument.wordprocessingml.document
- ERP Order CloudAttachmentMetadata changed from (no value) to (no value)
- ERP Order CloudFileid changed from (no value) to (no value)
- Line Item 1, Description, Full Description changed from [Palm Beach County] This is a fixed-cost agreement.

The goals of this project are to:
1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
2) to increase stony coral populatio to [Palm Beach County] This is a fixed-cost agreement.

The goals of this project are to:
1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
2) to increase stony coral populatio
• Line Item 2, Description, Full Description changed from [The Reef Institute] This is a fixed-cost agreement.

The goals of this project are to:
1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
2) to increase stony coral populat to [The Reef Institute] This is a fixed-cost agreement.

The goals of this project are to:
1) identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef),
2) to increase stony coral populat
• Line Item [Baseld 1566831147366 AAAAAE9WzOafm jzsi6qu.8t] was deleted

COMMENTS

- COMMENT by **Belinda Croft** on 05/02/2023

NOTES TO VENDOR

To be paid upon completion of services, DEP acceptance, and receipt of itemized invoice. Partial payments allowed. In the event that services rendered are not deemed satisfactory, the Contractor shall re-perform the work needed to ensure satisfactory service, at no additional cost to the Department. Failure to provide all services, or failure to provide services which are satisfactory, shall result in non-payment or termination of the Contract.

Contract Manager: Kristi Kerrigan | 561-681-6632 | Kristi.Kerrigan@FloridaDEP.gov

Questions regarding payment of invoices should be directed to Finance and Accounting at 850-245-2465.

Purchasing Office Phone Number: 850-245-2361

The DEP objects to and shall not consider any additional terms or conditions submitted by a Vendor, including any appearing in documents attached as part of a Vendor's response to a request for quote. In submitting any response to a request for quote/estimate, the vendor agrees that any additional terms or conditions, whether submitted intentionally or inadvertently, shall have no force or effect.

MyFloridaMarketPlace Transaction Fee

The State of Florida, through the Department of Management Services, has instituted MyFloridaMarketPlace, a statewide eProcurement system pursuant to section 287.057(24), Florida Statutes (Fla. Stat.). All payments issued by Agencies to registered vendors for purchases of Commodities or Contractual Services under chapter 287, Fla. Stat., shall be assessed the Transaction Fee of one percent (1.0%) of the total amount of the payments received from the State or Eligible Users, as prescribed by Rule 60A-1.031, Florida Administrative Code (F.A.C.), or as may otherwise be established by law. Vendors shall pay the Transaction Fee and are subject to automatic deduction of the Transaction Fee, when automatic deduction becomes available. Vendors shall submit any monthly reports required pursuant to Rule 60A-1.031, F.A.C. All such reports and payments are subject to audit. The Agency will have grounds for declaring the vendor in default if the vendor fails to comply with the payment of the Transaction Fee or reporting of payments, which may subject the vendor to being suspended from business with the State of Florida.

PUBLIC RECORDS.

A. Contractor shall comply with Florida Public Records law under chapter 119, Fla. Stat. Records made or received in conjunction with this Contract are public records under Florida law, as defined in Section 119.011(12), Fla. Stat. Contractor shall keep and maintain public records required by the Department to perform the services under this Contract.

B. This Contract may be unilaterally canceled by the Department for refusal by the Contractor to either provide to the Department upon request, or to allow inspection and copying of all public records made or received by the Contractor in conjunction with this Contract and subject to disclosure under chapter 119, Fla. Stat., and Section 24(a), Article I, Florida Constitution.

C. If Contractor meets the definition of "Contractor" found in section 119.0701(1)(a), Fla. Stat.; [i.e., an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency], then the following requirements apply:

1. Pursuant to section 119.0701, Fla. Stat., a request to inspect or copy public records relating to this Contract for services must be made directly to the Department. If the Department does not possess the requested records, the Department shall immediately notify the Contractor of the request, and the Contractor must provide the records to the Department or allow the records to be inspected or copied within a reasonable time. If Contractor fails to provide the public records to the Department within a reasonable time, the Contractor may be subject to penalties under section 119.10, Fla. Stat.

2. Upon request from the Department's custodian of public records, Contractor shall provide the Department with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in chapter 119, Fla. Stat., or as otherwise provided by law.

3. Contractor shall identify and ensure that all public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Contract term and following completion of the Contract if the Contractor does not transfer the records to the Department.

4. Upon completion of the Contract, Contractor shall transfer, at no cost to Department, all public records in possession of Contractor or keep and maintain public records required by the Department to perform the services under this Contract. If the Contractor transfers all public records to the Department upon completion of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records that are stored electronically must be provided to Department, upon request from the Department's custodian of public records, in a format that is accessible by and compatible with the information technology systems of Department.

D. IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, F.S., TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE DEPARTMENT'S CUSTODIAN OF PUBLIC RECORDS by telephone at (850) 245-2118, by email at publicservices@dep.state.fl.us, or at the mailing address below.

Department of Environmental Protection
Office of the Ombudsman & Public Services
Attn: Public Records Request
3900 Commonwealth Blvd, MS 49
Tallahassee, Florida 32399

Scrutinized Companies.

a. The Contractor certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List. Pursuant to section 287.135, Fla. Stat., the Department may immediately terminate this Contract at its sole option if the Contractor or its subcontractors are found to have submitted a false certification; or if the Contractor, or its subcontractors are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of the Contract.

b. If this Contract is for more than one million dollars, the Contractor certifies that it and its subcontractors are also not on the Scrutinized Companies with Activities in Sudan, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged with business operations in Cuba or Syria as identified in section 287.135, Fla. Stat. Pursuant to section 287.135, Fla. Stat., the Department may immediately terminate this Contract at its sole option if the Contractor, its affiliates, or its subcontractors are found to have submitted a false certification; or if the Contractor, its affiliates, or its subcontractors are placed on the Scrutinized Companies that Boycott Israel List, or Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged with business operations in Cuba or Syria during the term of the Contract.

11/2/23, 9:43 AM

Change Order C1A5A7

c. As provided in subsection 287.135(8), Fla. Stat., if federal law ceases to authorize these contracting prohibitions then they shall become inoperative.

Antitrust Violator Vendors.

A person or an affiliate who has been placed on the antitrust violator vendor list following a conviction or being held civilly liable for an antitrust violation may not submit a bid, proposal, or reply on any contract to provide any good or services to a public entity; may not submit a bid, proposal, or reply on any contract with a public entity for the construction or repair of a public building or public work; may not submit a bid, proposal, or reply on leases of real property to a public entity; may not be awarded or perform work as a Contractor, supplier, subcontractor, or consultant under a contract with a public entity; and may not transact new business with a public entity.

E-Verify

The Department may cancel this contract for failure to comply with section 448.095, Fla. Stat. In addition, pursuant to Office of the Governor, Executive Order 21-223, Contractor may be subject to audit for compliance with E-Verify requirements of section 448.095, Fla. Stat.

Common Carrier

If Contractor is a Common Carrier pursuant to section 908.111, Florida Statutes, the Department will terminate this contract immediately if Contractor is found to be in violation of the law. (Belinda Croft, Tuesday, May 2, 2023 EDT)

- COMMENT by **Belinda Croft** on 05/02/2023
This project is 1) to identify and document potential restoration areas (e.g., where Stony Coral Tissue Loss Disease (SCTLD) has impacted the reef), 2) to increase stony coral populations and species diversity on Palm Beach County's natural reefs, 3) to monitor restored reefs for survival, health, and predation, 4) to lessen the impacts of marine debris on local reefs, and 5) to support restoration and expansion efforts of the Reef Institute. (Belinda Croft, Tuesday, May 2, 2023 EDT)
- **Kristi Kerrigan**, 07/19/2023:
New SOW attached detailing modifications to methods and activities associated with Tasks 2, 3, and 5. Task-specific budgets were changed slightly for Tasks 1-4. No changes to overall project cost or line item totals. (Kristi Kerrigan, Wednesday, July 19, 2023 EDT)
- **Kristi Kerrigan**, 08/31/2023:
Updated SOW attached detailing modifications to work conducted by subcontractor (Task 5: The Reef Institute). In response to the emergency coral bleaching event on Florida's Coral Reef, Task 5c (coral propagation) is being removed and funds are being moved to Task 5a (coral acquisition) and Task 5b (coral holding and grow-out). No changes to overall cost of the project or Lines 1 & 2. (Kristi Kerrigan, Thursday, August 31, 2023 EDT)
- **Kristi Kerrigan**, 09/19/2023:
Refer to new SOW attached (titled "PBC+TRI_Scope of Work_change order 3_9.19.23_clean") detailing modifications to the timeline and deliverable/invoice schedule associated with Task 1 and 2 for Palm Beach County. No changes to overall project cost or line item totals. (Kristi Kerrigan, Tuesday, September 19, 2023 EDT)
- **Kristi Kerrigan**, 10/23/2023:
This Change Order is to add funds for six additional months of work for The Reef Institute (Task 5) from January to June. Line 3 was added with these new funds in the amount of \$167,70.52. Deliverable and invoicing schedule has been updated - please refer to the revised Scope of Work attached for details. The details/description of Lines 1 and 2 were unable to be changed - please refer to the details/description on Line 3 for a breakdown of the new invoicing schedule. An updated Budget Cost Analysis has been reviewed and approved. (Kristi Kerrigan, Monday, October 23, 2023 EDT)
- **Bethany Buffington**, 10/31/2023:
DO NOT DUPLICATE - Change Order
Requisition Total Cost changed from \$432,396.93000 USD to \$599,467.45000 USD
Line Item 3 was added \$167,070.52 (Bethany Buffington, Tuesday, October 31, 2023 EDT)

ATTACHMENTS

- ATTACHMENT by **Kristi Kerrigan** on Tuesday, May 2, 2023 at 11:44 AM
Purchase Order Terms & Conditions_Standard.pdf (252379 bytes)
- ATTACHMENT by **Kristi Kerrigan** on Tuesday, May 2, 2023 at 12:05 PM
Exhibit D - Research QA Requirements_POs_2-6-19.docx (49523 bytes)
- ATTACHMENT by **Kristi Kerrigan** on Tuesday, May 2, 2023 at 12:05 PM
Exhibit A - Progress Report and Deliverable Submission Form (Rev_3.15.23).docx (39043 bytes)
- ATTACHMENT by **Kristi Kerrigan** on Tuesday, May 2, 2023 at 12:06 PM
Invoice Example.pdf (379979 bytes)
- ATTACHMENT by **Kristi Kerrigan** on Monday, October 23, 2023 at 4:21 PM
PBC+TRI_Scope of Work_change order 4_clean.docx (118047 bytes)

TERMS AND CONDITIONS OF PURCHASE

Purchase Order Terms & Conditions

http://dms.myflorida.com/mfmp_PO_TC

**BOARD OF COUNTY COMMISSIONERS
PALM BEACH COUNTY, FLORIDA
BUDGET AMENDMENT**

Fund 3654 Environmental Resources Capital Projects

Attachment 3

ACCT.NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	CURRENT BUDGET	INCREASE	DECREASE	ADJUSTED BUDGET	EXPENDED/ ENCUMBERED As of 10/24/2023	REMAINING BALANCE
<u>REVENUES</u>								
381-E466 The Reef Institute	4399 Oth Physical Environment Rev	432,397	432,397	167,071	0	599,468		
Total Receipts and Balances		3,700,703	3,633,826	167,071	0	3,800,897		
<u>EXPENDITURES</u>								
381-E466 The Reef Institute	6504 Iotb Non Infratructure	432,397	367,510	167,071	0	534,581	259,777	274,804
Total Appropriations & Expenditures		3,700,703	3,633,826	167,071	0	3,800,897		

Environmental Resources Management

INITIATING DEPARTMENT/DIVISION

Administration/Budget Department Approval

OFMB Department - Posted

Signatures & Dates

Deborah Drum 10-23-25

By Board of County Commissioners

At Meeting of

December 5, 2023

Deputy Clerk to the

Board of County Commissioners