

November 9, 2023

Meeting Agenda and Notice

Coastal Advisory Committee (CAC)

Thursday, November 9, 2023– 1:00 p.m.

Collier County Board Chambers

Collier County Government Center

3299 Tamiami Trail East, Third Floor, Naples, FL

Sunshine Law on Agenda Questions

2023 CAC MEETING DATES

I. Call to Order

II. Pledge of Allegiance

III. Roll Call

IV. Changes and Approval of Agenda

V. Public Comments

VI. Approval of CAC Minutes

September 14, 2023

VII. Staff Reports

Extended Revenue Report

VIII. New Business

1. ES - Taylor Engineering, Inc. - Change Order No.1 - PO 4500224963
 - Change Order No. 1
2. ES - Humiston & Moore Engineers - 2024 Annual Monitoring Work Order
 - Work Order
3. ES - Deere & Company - Purchase of Replacement John Deere Tractor
 - Quote
4. ES - H. Barber & Sons, Inc. - Purchase of Additional Barber Surf Rake
 - Quote

IX. Old Business

X. Announcements

XI. Committee Member Discussion

XII. Next Meeting Date/Location

December 14, 2023 at 1:00 p.m.

XIII. Adjournment

All interested parties are invited to attend, and to register to speak and to submit their objections, if any, in writing, to the board prior to the meeting if applicable.

For more information, please contact Andrew Miller at (239) 252-2922.

If you are a person with a disability who needs any accommodation in order to participate in this proceeding, you are entitled, at no cost to you, to the provision of certain assistance. Please contact the Collier County Facilities Management Department located at 3301 East Tamiami Trail, Naples, FL 34112, (239) 252-8380.

Public comments will be limited to 3 minutes unless the Chairman grants permission for additional time.

Collier County Ordinance No. 99-22 requires that all lobbyists shall, before engaging in any lobbying activities (including, but not limited to, addressing the Board of County Commissioners) before the Board of County Commissioners and its advisory boards, register with the Clerk to the Board at the Board Minutes and Records Department.

MINUTES OF THE COLLIER COUNTY
COASTAL ADVISORY COMMITTEE MEETING

Naples, Florida, September 14, 2023

LET IT BE REMEMBERED, the Collier County Coastal Advisory Committee, in and for the County of Collier, having conducted business herein, met on this date at 1 P.M. in REGULAR SESSION at Administrative Building “F,” 3rd Floor, Collier County Government Complex, Naples, Florida, with the following members present:

CHAIRMAN: Joseph Burke
VICE CHAIRMAN: David Trecker
Councilor Erik Brechnitz (absent)
Jim Burke
Councilman Raymond Christman
Dr. Judith Hushon
Steve Koziar (via Zoom)
Robert Raymond
Robert Roth (via Zoom)

ALSO PRESENT:

Andy Miller, Director, Coastal Zone
Jeffrey Klatzkow, County Attorney

Anyone in need of a verbatim record of the meeting may request a copy of the video from the Communications, Government & Public Affairs Division or view it online.

I. Call to Order

Chairman Burke called the meeting to order at 1 p.m.

II. Pledge of Allegiance

The Pledge of Allegiance was recited.

III. Roll Call

Roll call was taken and a quorum of six was established in the board room.

Vice Chairman Trecker moved to allow Mr. Koziar and Mr. Roth to participate remotely due to extraordinary circumstances. Second by Mr. Raymond. The motion passed unanimously, 6-0.

IV. Changes and Approval of Agenda

Mr. Burke moved to approve the agenda. Second by Mr. Raymond. The motion passed unanimously, 8-0.

V. Public Comments

(None)

VI. Approval of CAC Minutes

August 10, 2023

Vice Chairman Trecker said the signature line should say Joseph Burke.

Chairman Burke said there were two sets of emails sent out and that was corrected already.

Vice Chairman Trecker said under “New Business, New Officer Voting, the third paragraph down, it should read, “Mr. Trecker said he would serve as vice chair for no more than 12 meetings.” He doesn’t intend to drop off the committee after that but will serve as vice chair during a transition period.

Dr. Hushon said on page 3, under “Dr. Hushon said, “This is different ...,” instead of fibrosis, it should say *Vibrio vulnificus*.” That’s the flesh-eating bacteria. And on page 5, under Councilman Christman, about halfway down on the second line, where it says “The markers are used on the beaches yearly,” there’s an extra word, “year,” in that sentence. And on the last page, second bullet, it should say, “They can raise houses on piles.” It says do raise.

Dr. Hushon moved to approve the August 10, 2023, meeting minutes, as amended. Second by Vice Chair Trecker. The motion passed unanimously, 8-0.

VII. Staff Reports

Extended Revenue Report

[“FY23 TDT Collections Revenue Report”](#) dated July 31, 2023.

Mr. Miller told the CAC that these are the July 31st numbers the CAC saw last month. We're doing them again because we get these reports at the last minute, literally a day or so before this meeting, and have to scramble to get everybody up to date, so we're going to revert back to the way we used to do it and report the numbers as they were last month. He has the new numbers and they're still good and are up by about a percent. You'll see those numbers next month and they'll be good.

VIII. New Business

(None)

VIII. Old Business

1. Update - USACE Collier CSRM

Chris Mason, Director - Community Planning & Resiliency Division

Mr. Mason detailed a PowerPoint presentation and reported that:

- He first met with the CAC in early April and said they'd see him more due to status reports for this project.
- This project was conceived before 2018, but we're using 2018 as the beginning process, when the Army Corps started to engage Collier County. That's when the county became the non-federal sponsor.
- In 2021, the feasibility study was paused to wait for the approval for the Time and Funding Exemption Request.
- In August 2022, the feasibility study was reinitiated for an additional three years.
- In April 2023, public meetings were hosted by Collier County and the Army Corps and planning charettes were conducted with community stakeholders and jurisdictional partners.
- In 2023, the Feasibility Study Advisory Committee was created and it has met once.
- Currently, the county and partnering jurisdictions are broken into five planning areas: the Wiggins Pass estuarine area, Cocohatchee River system and Vanderbilt Lagoon; Clam Pass State Park and outer Clam Bay; Doctors Pass and Venetian Bay; Naples Beach and Naples Bay; upper Gordon River and Rock Creek; and Marco Island-Goodland.
- The Army Corps advised us that the planning areas will probably change based on the outcomes of planning charettes and public comment. The changes will involve different measures to abate storm risk.
- We're going from five planning areas to four that will focus on beaches and "environmental justice communities." All structural measures were screened out.
- The analysis will be focused on beach renourishment, critical infrastructure, non-structural measures and possible natural and nature-based features.
- There will be no analysis within Coastal-Barrier Resource systems, which are governed by the U.S. Fish and Wildlife Service as part of the Flood Insurance Rate Map.
- Under our current alternatives, green shows what will move forward. Red/pink is what's no longer on the table. All structural measures were removed. We're left with flood-proofing for commercial buildings; shoring up critical infrastructure, which can be anything from lift stations to roadways, etc.; and elevating homes, which probably factors into Environmental Justice Communities.
- We're also looking at beach berms, vegetative dune nourishment and mangrove

- restoration, and they recommend that state and local governments update building code ordinances.
- Collier follows the Florida Building Code, an international code, so we're bound to that. The county has an option of creating higher regulatory standards, such as requiring higher elevation for new construction. That's what the Army Corps means when it refers to updating the Building Code of Ordinances.
 - Coastal Barrier Resource Systems were started in 1983 under the Coastal Barrier Resources Act.
 - In 1991, an initiative from the federal National Flood Insurance Program stated that barrier islands are ever-changing. The deposition of sand and shape of the island is constantly changing due to longshore currents.
 - They identified certain areas nationwide, including the Great Lakes, where you have a living shoreline that's always moving.
 - If you're constructing anything after 1983 or 1991, when they had an update, and it's on a barrier island, it's considered a very high-risk coastal area. They will not offer flood insurance for those properties. If your property was constructed before that, you could be grandfathered in.
 - An example of a Coastal Barrier Resource System in Collier County is Keewaydin Island. Everything there is located in a CBRA (pronounced cobra) Zone/Coastal Barrier Resource Area.
 - For any construction after 1983 or 1991, there is no federal funding for flood insurance.
 - How does that play into the Coastal Storm Risk Management Program? Based on the Code of Federal Regulations, carrying out any project to prevent erosion or to stabilize any inlet shoreline or in-shore area, except that such assistance and expenditures may be made available on units designated to Section 4 on this product map. The federal government is saying they will not fund federal dollars in CBRA zones.
 - Marco Island residents know some of the story. They had two areas they were looking into for beach renourishment and another area they were considering putting a breakwater in. Those areas were located in Coastal Barrier Resource Areas. After much discussion between the Army Corps and Marco staff, the Army Corps said they were not going to fund projects in these areas because the Code of Federal Regulations didn't allow it.
 - Currently, the approved budget is for three years at \$2.97 million and there will be no funds over that.
 - The path forward most likely will analyze solutions that will lead to a completable chief's report within an approved time and funding. This will likely look at non-structural, nature-based features, including elevations of homes, etc.
 - The Water Resources Development Act (WRDA) 8106, which is about compound flooding, won't be incorporated because it would exceed the study's time and budget.
 - If the City of Naples, Collier County and Marco Island were interested in that, we would have to fund that ourselves.
 - The USACE chief's report is developed when a water-resources project requires congressional authorization or a change to an existing project authorization. After the final feasibility report is submitted, a chief's report is developed and it's one of the key pieces.
 - What the Corps anticipates is having a signed chief's report and feasibility study

- by August 2025. On our timeline, the Tentatively Selected Plan Milestone would be moving forward in spring 2024.
- From this period on, we'd be in a "holding pattern" while the Army Corps begins its analysis and modeling. We probably won't get the modeling results until spring 2024.
 - In summer 2024, the Draft Integrated Feasibility Report and Environmental Impact Statement would be released. Communities then have a 45-day comment period.
 - In fall 2024, we'd come to an Agency Decision Milestone between Collier, the other participating communities and the Army Corps.
 - The Final Integrated Feasibility Report and Environmental Impact Statement will be released in early 2025, when communities will have a 30-day comment period.
 - In August 2025, the Corps would issue the chief's report based on the communities' decision on whether to accept or reject the plan.

A discussion ensued and the following points were made:

- The Army Corps is forecasting that the EIS will be done by summer 2024.
- That's the draft and the final would be released in early 2025.
- The 45-day comment period with so many stakeholders is very short for a document that will be about 1,000 pages.
- We should do some self-analysis to prepare for that.
- Nothing is set in stone.

Mr. Mason provided an update on the Ad Hoc Advisory Committee:

- In May, the *ad hoc* Coastal Storm Risk Management Feasibility Study Advisory Committee was formed.
- It met once in late July and no other meetings are currently scheduled.
- This isn't a monthly advisory committee. It meets based on new information released by the Army Corps. We'd call a meeting for them to review it and comment.
- We'll probably have another meeting by the end of the year. We're waiting for new data.
- We have the monthly Army Corps call that's open to the public on the fourth Thursday of each month. The Army Corps answers questions from the public and the public also can ask staff questions.
- *Ad Hoc* committee members also are on that call to get updates.

Dr. Hushon asked if he could provide his PowerPoint presentation to CAC members. He didn't go over the red and green chart to detail what was coming in and what was going out. People have been asking her about that.

Mr. Mason said that anything structural, such as flood walls and flood gates, has been taken off the table. The only thing that is not structural would be oyster reefs. Acquisitions and road relocations also were removed.

Councilman Christman asked if he'd work with Andy to send his PowerPoint presentation to the CAC members.

Mr. Mason said he would.

A discussion ensued and the following points were made:

- A cost-benefit analysis is occurring and will be part of the modeling.
- The county hasn't had any discussions about that yet.

- The Army Corps is two months into the process.
- Mr. Mason provided GIS data to the Army Corps so they could start working on it.
- The tentatively selected plan will include that.
- A criticism many area communities had was that the financial cost-benefit analysis of housing structures and property values wasn't accurately considered. Residents of Naples, Marco Island and Pelican Bay said decisions were made without good numbers. They didn't know where the numbers came from, but they weren't from the tax rolls.
- The numbers for Naples Cay proved that and showed that land values weren't considered. The numbers bore no resemblance to tax rolls and were very undervalued.
- The Army Corps hasn't shared its cost-benefit analysis with the county.
- The U.S. government has software, such as for Environmental Justice Communities, that looks at Census tract data and delineates areas they consider not to be high-end communities that have lower real estate values.
- We can look at tax rolls, but they're using separate software.
- During the charette, they had a map of Section 5 and labeled the entire tract an Environmental Justice Community. In every case that wasn't true. Dr. Hushon told them it wasn't true and only a small portion was an Environmental Justice Community.
- Dr. Hushon told the Army Corps that they needed to do a more careful analysis because it was deceiving the way it was being presented and would upset people who live in a \$2 million home in that census tract, which was suddenly declared an Environmental Justice Community.
- The tracts included homes at \$2 million and \$100,000 and they weren't considering that so they need to go block-by-block and do it correctly.
- The Army Corps will be adjusting that. The planning areas will change. This is only a preliminary look at Environmental Justice Communities. But they've asked the county not to share that now because it's subject to change.
- They will have a better grasp on that, and that area has shrunk.
- As soon as the county is allowed to make it public, we will update the website to apprise everyone of the updates.
- We're about 60 days away from the Army Corps announcing the new planning areas.
- Some of the Environmental Justice Communities have trailers, which are moveable. They can easily be moved to an alternate piece of land that's higher and drier at a lower cost than other alternatives.
- Relocation makes sense because trailers can be put onto flatbeds, taken to another location and placed on concrete pads or blocks.
- There are some areas with trailer and mobile homes that are flooding regularly, and many are no longer mobile, but they're much easier to move than houses.
- Is the old planning area at Pelican Bay still in play?
- To qualify for federal funding, three project criteria must be met: environmentally acceptable engineering, it's feasible and cost-benefit effective.
- This will be 65-35 split, with 65% federally funded and 35% locally funded.
- For areas needing protection, the feds would cover 35% if the county covers 65%.
- The Army Corps will consider all the input and provide its own document.
- Certain measures on Marco Island were taken out due to the Code of Federal Regulations, but the island was not excluded.
- There is still some beach nourishment at Tiger Tail that will be included. Flood walls or flood gates at Collier Creek, or a breakwater at Caxambas Pass and some beach-nourishment projects at the north end of Tiger Tail were scratched because they were located in the Coastal Barrier Resource Act area.

- At the charette, the Army Corps had valued many houses on Marco at about \$500,000. Mr. Roth pointed out to the Corps that many were in the \$5 million range and FEMA said they would correct that.
- \$515,000 may just be a house value, not including land.
- There are few homes on Marco valued that low, so we hope FEMA will seek more input from stakeholders and not use bad data.
- Antiquated laws from 1982 shouldn't be germane for what FEMA is doing.
- Saying you can't do anything doesn't make sense. These issues didn't occur in 1982.
- Army Corps modeling used pre-hurricane data sets for property values.
- Mr. Mason said property values could be lower after Hurricane Ian, but they're trying to look at it from an optimum real estate standpoint and that's why they're included, so that would change the numbers greatly. Based on storm surge, they can model and show how many potential billions of dollars in the real estate market will be lost based on pre-storm conditions.
- Participation in the Army Corps calls has greatly decreased and they haven't been sending out monthly reminders about the calls since the initial notice.
- It seems like there's a rush to complete this based upon \$2,97 million in funding and that seems to be driving everything in terms of whittling things down and not considering what stakeholders brought up.
- It would be helpful to know why areas were excluded, whether it was due to environmental, technical or cost reasons. Were there categories within each that prompted the decision?
- We need to understand where they are raising structures and who's paying for that because if you eliminate the structure at Doctors Pass, why do anything in that area? You haven't helped because it will flood again, go through the pass and flood the area.
- All homes in the Doctors Pass area would need to be raised.
- Are they doing a NEPA document as part of the NEIS?
- In the NEPA document, they should do a street-by-street Environmental Justice look at each structure and historic homes and wrap that into the NEPA and not into the DEIS (Draft Environmental Impact Statement) and if areas are being excluded, they should state the reason, such as it was because of the CBRA.
- Even though the CAC doesn't have direct responsibility anymore, we're still a very important stakeholder and our views, based on experience, are relevant and may be helpful.
- It would be appropriate for the committee to take a position if we can reach a majority opinion, but that timing would come after we see more clarity on what the recommendations are.
- The monthly USACE calls are a good way to get a regular update and to ask questions, either on Zoom or through a chatroom.
- But comments and questions during the Zoom call are not part of the public record.

Mr. Mason said he'd be in touch with the CAC and provide a copy of his presentation. If they need anything else, they can let him know.

Action Item: The CAC would like Chris Mason to send CAC members a copy of his presentation.

Action Item: The CAC would like Chris Mason to ask the Army Corps to send out reminders about its monthly Zoom calls.

Action Item: The CAC would like Chris Mason to ask the Army Corps on the Zoom call to detail why certain areas were excluded, such as for CBRA, technical or cost reasons, and to bring that information back to the CAC.

**2. Update - 2023 Collier County Beaches and Inlets Annual Monitoring
Brett Moore, P.E., D.CE, President - Humiston & Moore Engineers**

Mr. Miller said we show the committee our annual monitoring report results every year and go through findings and recommendations. This year, he wanted to provide them early and to bring our engineering consultant, Brett Moore, to describe the methodology and answer questions about his recommendations.

2023 Collier Beaches Monitoring Report

Mr. Moore detailed a PowerPoint presentation and told the CAC:

- These are excerpts from the report so they can understand why recommendations were made.
- He added additional slides at the end to address some questions that came up during CAC meetings after Hurricane Ian. One member asked why we're not recommending beach nourishment if we just got hit with the biggest storm ever.
- The first exhibit lays out the overall area of the monitoring for beaches and defines the different segments from Vanderbilt down through the south end of Naples.
- The report details four primary segments, the Vanderbilt Beach area, Pelican Bay, the Park Shore area going down to Doctors Pass, south of Doctors Pass and Naples.
- This is a good resource document and tallies up everything that has been put on the beach, whether it's sand from an inlet or a truck-haul nourishment project, which hasn't been done in a year.
- We're looking at shoreline change and volume change and need to understand what's behind the volume changes and why an area is doing so well. That's because it just received another 23,000 cubic yards of sand from the dredging of Doctors Pass.
- If we know it's a short-term or long-term trend, that's what we monitor.
- It's important that monitoring is not a knee-jerk reaction and that we understand comprehensively what's going on so we can make a good recommendation.
- The report includes illustrations that help us see the sand that's been put on beaches and where it came from.
- Beach profile data show factors we need to consider in the 2023 data set. We had the regular monitoring data from 2022 early and then a post-Hurricane Ian data set in November 2022 and another brief set. We want to consider all those in our analysis to see how well the beach is performing.
- It determines how well the beach is performing in terms of its overall design intent, in terms of widths of 100 feet or 85 feet for different segments, whether we're achieving those.
- We look at all monuments in each area and shading areas where we have nourishment areas so we know what's going on in the areas that haven't been nourished, and as sand is falling off the end of the table next to where we're putting it, and what's going on.
- We also compare the project to the post large-scale project completed in 2006. Then we do the same thing volumetrically throughout the year.
- One controlling factor for determining whether we should be spot treating with the truck-haul project is looking at how well an area is performing relative to the design width

that's been established for the different segments.

- If an area is dropping below the design width, is that one spot bordered by an area that's much wider? Is nature going to smooth that area out or is it, from one year to the next, an area that's growing to the point where it's growing in terms of being insufficient? We have to address it by adding more sand.

Mr. Moore detailed the Vanderbilt Beach area:

- We look at the last monitoring data collected in early 2022 and after the storm hits, where did the sand go?
- The areas in red are erosion areas and green is where sand accumulated.
- Where did the sand go? A lot accumulated on the offshore bar and just beyond. That's why, when there is an approach to FEMA to get funding to help restore the project, the sand is still within the active system, it's still within the depth of closure we're seeing is affected by waves and can move on.
- Through the FEMA process and the counties effort, they went for an emergency berm rather than Category G, which is when sand is lost from the profile system to the point that it warrants sufficient funds to bring sand back to the system.
- The county did the emergency berm. The profile shows how that has offset what happened on the upland side.
- From the November 2022 post-Ian survey and the one in May after the placement of the sand fill and the emergency berm, there was some natural recovery, but a lot of the upland has been restored, but not to 100% at Vanderbilt.

Mr. Moore detailed the Pelican Bay area:

- There were dunes in Pelican Bay after the storm and throughout the county that didn't extend all the way back to the edge of the vegetation where there were dunes before.
- There was a limited amount with the sand, but it still offset quite a bit of the loss.

Mr. Moore detailed the Pelican Bay area:

- We work for several property owners in Park Shore at the promenade, which is just south of here. That went from 46 to 50. They had a plus 12-foot dune that was built in 1970 with a rock core.
- Throughout much of that area, about 4,000 feet was wiped out and was substantially impacted. That was an extreme event for that area. The property owners worked together and trucked in almost 20,000 tons of sand to restore their dune under emergency permits and planned it.
- When you have that, plus the emergency berm, restoring the beachfront merged well to restore a profile that was deflated and hammered. It was a significant amount of dune erosion.
- But this is all still in that area. Before the storm and after the storm, there was a significant amount of dune erosion. The emergency berm tied into the dune area. There wasn't a lot of private participation in the upland, but there was in other areas, so it ended up being an extremely well-restored profile.
- It hasn't been that much altered. Most of the alterations occurred on the upland area.

Mr. Moore detailed the Naples Beach area:

- We had upland losses, sand moved, a bar moved farther offshore from the higher wave energy and some of the material on upland washed into the near shore and

some was lost to upland overwash.

- The emergency berm worked well in starting that recovery.
- If you flew over and took aerial photos, you'd see the beach doesn't look bad, but you can't see it's much lower from the air.
- After the overwash, when the storm left, it also pulled sand seaward and that's why you saw it build up in some of the near shores.
- We had a flat lower system that has a limited amount of recovery.
- Upland property owners adding sand and the comprehensive county plan worked well in that effort.

Councilman Christman thanked him for the helpful presentation and said he was the one who called it "kind of counterintuitive." You explained some of the hydrologic factors that account for this. He wanted to move to the next point on the agenda because it's relevant here. He requested an addition to the agenda, an update on Hurricane Idalia two weeks ago, and whether that has any impact on beach nourishment this year or if it changed our conclusions on Naples beaches. Although the hurricane missed us, the wind and rain had some impact in flattening the beach. Is there a reason for a relook at our beaches given what happened? Do you have any other observations on that?

Mr. Miller said he put together a brief presentation on that and we should let Mr. Moore finish his presentation.

Councilman Christman said he only raised that subject because he thought Mr. Moore might have data or an opinion.

Mr. Miller said he's welcome to render his opinion, but he does have slides to show on that.

Mr. Moore told the CAC about his observations after Hurricane Idalia:

- He's witnessed a lot of storms over the last three or four decades that have overwashed the beach.
- On Labor Day, he walked a section of Park Shore because the berm was much more evident before. It got washed away. He saw the berm getting overwashed and it was redistributed in the system.
- The sand put there as an emergency berm wasn't a berm added as a large protective dune. It was there to add sand to the system and that's what he watched it do.
- Before Idalia hit, it rose up on the beach and afterward, it was overwashed and merged into the profile, so it wasn't lost. It did what FEMA intended, as well as providing protection from flooding during a high-frequency event.
- We can't be overly reactive to that level of event because we get them frequently.
- It's important to monitor how the system bounces back.
- If the system doesn't bounce back, then we have to do something.
- We collect a lot of drone shots in the areas that we're working in because right after an event, it doesn't look good, and we go there and try to be fair and determine where the sand went.
- We see it recover in about six weeks, with sand rolling back in.

A discussion ensued and the following points were made:

- The Port Royal emergency berm project is planned for end of November or early December, most likely December.
- The project will go from R-79, around 21st Avenue South, down to Gordon Pass.
- By the time Port Royal gets its sand, the tonnage will have exceeded 400,000.

- The county came close to meeting its target there.
- The diagrams and cross-sections helped us visualize where we had erosion and accumulation, but it's a distorted, exaggerated scale.
- If Humiston Moore doesn't exaggerate the vertical scale relative to the horizontal scale, all the lines would look like they're the same, so it purposely exaggerates the vertical scale almost 10 to 1.
- The depth of the deposit offshore is about 2-3 feet. It's within an active area where it would feel the effects of wave activity and be able to work its way on shore naturally. That's what we've seen in the past.
- Offshore, in the horizontal scale, it's about 400 feet, a little longer than a football field.
- They've historically used a depth of closure of -11.3 since the monitoring started years ago for consistency.
- We go beyond that in measuring changes because sometimes a storm pushes sand farther. To capture that budget of sand, we make sure we go to where the profile closes.
- How far we go is based on an effective depth of the wave energy being felt on the bottom. It's a function of depth and its bearing offshore based on the profile.
- In relation to the 400-foot dimension, the hard-bottom monitoring varies along the lateral edge of the beach. It could be 250-1,200 feet out and wiggles all over.
- They're out in the boat now measuring and surveying the hard bottoms, so we'll have a new data set soon.
- One of the closest areas is south of Doctors Pass.
- The berm-crest elevation is plus 6 feet pretty consistently.

Action Item: The CAC would like Andy to provide them with a copy of Mr. Moore's report.

2023 Wiggins Pass Monitoring Report

- Through some dredging in 2022, that dredged about 66,000 yards and 23,000 were placed to the south. The rest was placed to the north.
- The general scope of the area is shown. Yellow is the inland alignment and the two authorized disposal areas north and south.
- When an inlet alignment is determined, it's based on the general configurations of the actual at that time. 2013 was when most permitting was done for the current configuration and channel design. Soon after 2013, the initial formation changed substantially and drifted more from the southwest alignment and started going more to the northwest alignment.
- You only have one alignment that you're allowed to dredge, so that may not always be effective. We submitted a request to the state to allow this big triangle. Based on monitoring and performance, the next time the triangle area is dredged, it may be more appropriate to adjust that alignment. You want the alignment of a channel to have the bordering shoals on each side to help stabilize the alignment with all the shoals on one side of that inlet and you dredge it.
- It's going to fill in quickly and move down to the south side or the weaker side. That also has a direct impact on the stability of the adjacent coastline.
- Years ago, the inlet on the south side, the south beach, was wide. A few years later, it was gone. Those things change and we wanted to make sure that the inlet dredging can make those adjustments for optimum performance. Those changes were approved by the FDEP and are currently being reviewed by the Corps.

Dr. Hushon asked if the general sand movement was north to south.

Mr. Moore said yes and noted that it's based on wave energy and direction. On average, there's more wave energy out of the northwest. As waves come down, they refract and bend around and fuel the shoal. They slow down in the deeper water beyond it and continue to go faster. They'll bend and in the vicinity of an inlet, you get reversals. They get pushed back in the opposite direction, so there are lots of dynamics around the inlet.

Mr. Moore continued his presentation on Wiggins Pass:

- The purpose of this exhibit also shows all the stationing where we collect our data to evaluate deployments of the dredging operation.
- Throughout the project area, there are varying depths. There's -12 and as you get inside the inlet, the depths of dredging drop off.
- The purpose is to show that when they finish the dredging in 2022, you can't get all the sand, so throughout the entire system there were 7,000-7,500 cubic yards within that dredge template.
- After Ian, we measured how much was in that template and we determined there was 27,000, so we know the inlet channel shoaled about 20,000 yards due to Hurricane Ian.
- Relative contour maps show pre- and post-dredging and different inlet conditions.
- The left-hand side map shows the contours of change before and after Ian and where sand accumulated, the light-tan shaded area. Most of it accumulated within the channel, as well as adjacent shoals. The storm washed in the inlets, and then it scoured out, so it had some beneficial effects, but it was limited.
- It took a lot of that sand buildup on the adjacent shorelines, the dynamic areas, to wash that material out into the ebb shoals. That's why you also see a large accumulation of sand on the south side, out into the near shore, near the inlet.
- You can see a depth of -4. Within the inlet, you can see the shallowness of the ebb shoals on each side, a good indication for the alignment.
- We also track beach changes because when you dredge, the point of maintaining the inlet properly, it's not just the inlet, there are areas affected by the inlet, and we have to treat it as a whole system. It's a sediment-budget scenario.
- One year you put the sand on one side of the inlet and we put it where it's needed the most and monitor long-term inlet trends.
- The inlet management plan for Wiggins Pass calls for putting two-thirds of the sand to the north and one-third to the south. Overall, they weren't that far off over the last 20 years. We had about 54% to the north and about 30% to the south, and then some sand was put in the ebb shoal to help stabilize the channel.
- Another slide shows relative quantities that have been dredged per event.
- Dredging events at Wiggins are much larger than 20,000 cubic yards. They're about 40,000-60,000 and at one time it was 100,000 cubic yards. This means we have to monitor it to see how well it performs to make sure we don't have navigation issues.
- We keep track of all the changes that occurred in the inlet and how much has been dredged over time. It's a good resource for us.

2023 Doctors Pass Monitoring Report

- We have the area of dredging, and two disposal areas, one adjacent to the inlet on the south side, and another farther to the south, at Lowdermilk Park.
- In the pre- and post-dredging post-Hurricane Ian, some of the areas were scoured out, but the dredging volumes in this inlet are trickier because there's quite a bit of rock in the settling basin outside the inlet and that would be your normal ebb

shoal area.

- It's hard to hydraulically dredge down to rock because it can be very damaging and an environmental problem. We don't want rock shards all over.
- Historically, we've taken the best data composite, as far as seeing how low and close to the rock we're able to get. We use that to estimate how much rock is in that settling-basin area. If there are 20,000-24,000 cubic yards not dredged in the settling basin, that's not alarming because that's as close as we've been able to get over the last 20 years.
- If we measure from that, we're not losing track of available sand. From Ian, we measured about 12,000 yards that have filled in within the inlet dredge channel.
- The area shoaled in, which is not uncommon. It's similar to Wiggins and is sand coming down the system, suspended, traveling predominantly north to south, and it crosses the settling basin.
- We keep track of the shoreline and volume changes. This is important because we had an area south of Doctors Pass that was probably one of the highest eroding areas that challenged Collier County. The amount of emergency truck-haul operations, the dredging, could not keep up with it and that's why over time, the solution involved erosion-control structures.
- We took the soft approach and put sand there. It could not maintain anything close to that design width. The area starved. It has jetties, sand does not come down the beach and crawl around the outside and tuck inside the jetties and go right to the beach. It bypasses, so the only way that area could be addressed historically is through the mechanical placement of sand, dredging it, or truck-hauling sand there.
- The permits were modified to include this area as a disposal location. Historically, it had always been placed in Lowdermilk Park. Depending upon the need of the companion item, the nourishment project, maybe it's more cost effective to put the sand at Lowdermilk Park. But we also have to track what's going on to the south.
- The erosion-control structures to the south have helped reduce that stress, and erosion-control structures help as a time release, so when sand is put there, it won't wash out right away.
- Historically, this inlet over the last 20 years has had about 9,000 cubic yards accumulate per year. It had very regular scheduled dredging, about every four years. If we have storms and it shoals in, sometimes it's three years, but typically it's every four years, with about 35,000-40,000 yards, so we just put in 12,500.
- We'll keep tracking it and be able to project, but it may be a couple years out for dredging.

3. Hurricane Idalia Update

Mr. Miller detailed a PowerPoint presentation:

- Immediately after the storm hit, we were curious about how it affected the berm we put in place a few months ago, so he drove to several beaches and did a quick visual walk.
- Visually, it appeared that the berm did a really good job, but he wanted hard data, so he met with the County Surveyors Office and they took measurements.
- At Naples Beach, the elevation after the storm was 5.7. We put 6.0 on the beach, so it changed by three-tenths of a foot, which may or may not have been caused by this storm. The wind over time can take that much sand off.

- When you go northward to 5th Avenue, it's 5.8, almost 5.9, and to the north, it's still 5.3.
- Closer to Doctor's Pass and the south end of Park Shore, it was 5.9 and 5.4.
- We didn't lose much width, so it performed as designed. We're pleased with what remains.
- In Park Shore, it was 5.4 or 5.9, mostly 6.0s and a couple of dips, 4.5s.
- The worst was surrounded by 6.0s and was a scour point. We're going to wait and give it some time for these 6.0s to fill in the 2.0s or 3.0s.
- Brett Moore and his crews will do their annual survey in January, so they'll provide some updates.
- It was above 6.0 all the way up to the north end of Seagate.
- Park Shore and Pelican Bay were 5.9, 6.3, 7.0, 7.5 and there wasn't much loss or significant loss of width. All the sand is still there.
- On Barefoot Beach, where Idalia's intensity was a bit stronger as it traveled north, we were concerned that Barefoot would be hit more significantly. There was some overwash that pushed some sand landward, but it's still elevation 7.4 and 6.0s. It's all 6.0s and 7.0s, so we're pleased.

Dr. Hushon asked what the red line is.

Mr. Miller said the red lines that are inland are property lines.

Dr. Hushon asked why they stop.

Mr. Miller said the data set was so large, it took so long to refresh the screen so it chopped off a little when he took the shot.

Mr. Miller continued with his presentation:

- After Ian hit between 5th Avenue South and 4th Avenue South, he didn't know a sea wall was there because there was a dune and vegetation, and the entire length of sea wall was invisible to anyone walking on the beach.
- Immediately after Ian, after we placed our emergency berm there, the top of the sea wall was at elevation 6.3 or 6.5. We filled it to the top of the sea wall.
- Right after Idalia, the sand was exactly where we put it and a lot of the emergency berm's width remains.
- At the southern end of the emergency berm, around 21st Avenue South, we stopped the project because everything else to the south is private, we couldn't get easements and the turtles were coming. [He showed before and after photos.] Idalia hit during high tide and the wave action was easily contained by the berm for almost the entire length of the beach.
- No sections of Naples Beach were breached.
- With no berm, the water has the ability to go back into the property if it gets bad.

A discussion ensued and the following points were made:

- That's the area that will be landscaped next year. It's in design and we had our second stakeholder meeting with the Botanical Garden and other stakeholders who are interested in what we're planting, how much we're planting and where we're planting.
- The emergency berm width will probably be 50-60 feet, but we probably won't be planting out to 50-60 feet because it would rob people of usable beach.
- The designer will tell us, but it will probably be 15-20 feet of berm plantings, dune grasses and other native species suitable for the Southwest Florida coastal

environment.

- That will provide more resilience.
- Hurricane repair work was divided into three sections, the beach cleanup; leveling, emergency berm work and plantings; and general beach buildup and was based on measurements surveyors and engineers took right after the storm.
- Category G renourishment is permanent work and is eligible for FEMA reimbursement if there's any real sand loss from the system.
- Mr. Moore's slides showed the sand was lost from the uplands, but it traveled out into the near shore with the ability to work its way back, so the net loss was essentially 0.
- We're going to go back to our annual monitoring and, based on the engineer's findings and recommendations, renourish and continue our typical four- to five-year renourishment. It's always based on what they survey in the field.
- The county committed about \$900,000 to Tiger Tail beach renourishment, and there were little, if any, impacts to the emergency berm, according to aerial photos and emails. There was a lot of erosion that occurred on Marco Island.
- It appears there was some breaching of the system near the new construction. Marco and Hideaway Beach residents are looking at that. There was a request from an engineer to bring mechanical equipment there to address some erosion near term.
- There was going to be some emergency work for about \$48,000, but they won't be able to do a lot.
- There has been no update from the Hideaway Beach Tax District, but there were no issues involving Idalia.
- The front toe of the berm was about elevation 3.0 and from photos, there wasn't any place along Naples Beach where it encroached, even halfway up the berms. Estimates prior to the storm were 0-4, but it's probably closer to 2.0.
- Some old sea walls were breached, but they also are overtopped, sometimes on a big king tide (high tide during a full moon), so it wasn't anything like Ian.
- There was some roadway flooding in Naples and along Gulf Shore Boulevard, several intersections and the dock, but that was probably due to the inundation and king tide – and it also occurs during a rainstorm.

4. Answering Action Items and Questions from the August Meeting [Andy Miller]

Mr. Miller thanked Chris D'Arco and Farron Turner for filling in for him last month.

Action Item Question: Explain what methodology the county could use to survey metals and other debris underwater to protect beach covers.

Mr. Miller: We're making some quick Google searches and asking some of our survey consultants, in addition to Brett's crew because he uses a surveyor, Sea Diversified Inc., to do the survey work and we're looking at the practicality and feasibility of doing something along those lines. We can discuss it further next month.

Dr. Hushon said snorkelers told her they could see beach furniture and other things under the surface of the water, so that's a concern because that's metal and you don't want to come in contact with it.

Mr. Miller agreed and reported that:

- Hard-bottom monitoring is going on now and they're out scuba diving and are

seeing things like that. As every cold front comes through in winter, things will move around.

- We've got our phone lines open when we've given out our e-mail address to the press to ensure everyone knows who and where to call or who to e-mail, if they see something.
- They need to provide a good location so our crews, if we can manage it, can retrieve it.
- We just retrieved a big sliding glass door from offshore this past week, so we're reacting, but unless we go out there, it's going to be tough to keep track of 15 miles of usable beach until they do the survey.

Dr. Hushon asked if they'd have a retrieval vessel to pick up objects underwater.

Mr. Miller said they have a boat at the surface, but they also have a buoy on a tether hooked to the diver, so they know exactly where he is as he swings around.

Dr. Hushon said if he sees a chair, is there someone who could pull it up in real time?

Mr. Miller said not as part of that effort because this effort involves a scope of services for the consultant, and we don't want to slow the consultant down with recovery activities while they're trying to get survey work done.

Action Item Question: Staff asked to further explain the typical sections of the report.

Mr. Miller said Brett did a great job of explaining that, but if you have further questions, he can answer them.

Action Item Question: The CAC requested further answers about the numbers in the report.

Mr. Miller said he has a copy of the 10-year plan, which is a planning document. The numbers change yearly, but they're closer to being a reality in FY24. Those are just planning figures we come up with to anticipate expenditures over the 10-year period, but if you have any questions specific to any given project, he can put that together.

Chairman Burke said the question about the variation in the cost revolved around how some years it was 200,000, then it would be 40,000 or 50,000.

Mr. Miller replied that:

- When talking about beach renourishment and dredging projects, we'll have a major renourishment project every four to five years, so we budget accordingly.
- Intermediate to that, we may have monitoring efforts or intermediate renourishment and the same thing applies with the dredge.
- A typical dredge project for an inlet, such as Doctors Pass and Wiggins Pass, is about \$2.5 million.
- The next dredge project will probably be an interim dredge, which will be a lot or a bit lower.
- In the meantime, we'll do monitoring. Those are lower, \$25,000-\$40,000.

Councilman Christman told Mr. Miller:

- He asked to have a discussion on the Water Quality Subcommittee and where we're going with that.
- We could jump-start the committee and get some ideas going.
- Maybe at a future meeting, we could invite representatives of major community

environmental organizations, such as The Conservancy, Audubon of the Western Everglades, Captains for Clean Water, the Collier Waterkeeper and others.

- We could ask them to bring their ideas on the three most important things Collier County could do to improve coastal water quality.
- We could get their input and ideas and give them advance notice so they can think about it.
- The public could comment and we could invite other groups.
- We could structure it in a way try to gather input and ideas and that could be the basis for the Subcommittee on Water Quality to meet again and have some specific ideas to discuss and potentially pursue.

Dr. Hushon said something that could be useful is to know where the county is now in terms of eliminating septic systems. The city has eliminated its septic systems and the county has done some, but not all, at least not even all in the coastal zone. It would be interesting to hear what the county has done and what the projected completion date is.

Vice Chairman Trecker said we went through a similar exercise three or four years ago, so maybe it's time to get an update on that. We want to do this in conjunction with a review of where things stand on past subcommittee recommendations that haven't been acted upon.

[The discussion continues under XI, Committee Discussion, per the chairman.]

X. Announcements

Mr. Miller said he received an email this morning about the Annual International Coastal Cleanup, which is related to our discussion. It's at 8 a.m. Saturday, September 16th and is all volunteers. It's a worthy effort.

Dr. Hushon said the next meeting of the Blue-Green Algae Task Force is at 9 a.m. September 20th and the information is at: bit.ly/BlueGreenAlgaeTaskForce

XI. Committee Member Discussion

[Moved from VIII.5 above.]

A discussion ensued and the following points were made:

- The Blue-Green Algae Task Force put out its list of recommendations four or five years ago, and they were clear.
- The state has acted on about one-third or less, but we have been acting on some of the local recommendations and the city has done some.
- Since blue-green algae is the greatest source of nutrient pollution for us, it would be good to know what the trend is, how fast we can expect it to be coming down and which areas they're targeting for when.
- Rather than inviting groups to talk to us, we should first review where things stand now. Some subcommittee proposals were good, they were accepted, but never acted upon. We should follow up on them as a starting point.
- Getting input is a great idea.
- Three years ago, the Board of County Commissioners wasn't keen on the CAC getting involved in water quality and we barely got the subcommittee going. It was a lukewarm reception.
- Lee County has taken the lead by incorporating advanced water treatment. They

saw the need for it and they're doing it.

- The three subcommittee recommendations were: fertilizer regulation; promoting compliance through the landscape training program; upgrading the wastewater plants to the advanced wastewater treatment level to remove nitrogen and phosphorous.
- The county doesn't go after those nutrients, which are the sources of our pollution. Operating data from county plants is still not up to an advanced waste water treatment level like Lee County has recognized.
- It's important to reduce irrigation, which is how the county disposes of its treated effluent. It's sprayed on the ground every day, 365 days a year, so it gets into the water.
- We can ask Jamie French for an update because he'd know if any employee under him is doing something about it.
- The subcommittee seems to be going round in a loop. County staff clearly said they had limited time and resources to support us on developing new ideas. This isn't the first time we've heard that the previous recommendations prepared several years ago were submitted to county commissioners and ended up on the back burner.
- Our full CAC has said several times it didn't want to disband the Water Quality Subcommittee or drop our focus on it.
- We need to find a way to stimulate new thinking and new ideas to make a contribution, but don't know how.
- The Gulf pollutants, the nutrient pollution in the Gulf, increases after a hurricane or major storm when the water comes off the land, down streams and into the gulf. That's when our interest is piqued. That doesn't happen unless a certain amount of other sources are looked at and addressed.
- We're concerned once it hits the coast, but it does hit the coast, so what can we do to keep it from hitting the coast?
- Stimulating new ideas by bringing new people to the table may be what we need to motivate people and to understand the problem more. It's within our jurisdiction because this either promotes tourism or doesn't.
- We need to understand from state, regional and local people how much of our water quality is a local issue, how much is a regional issue and how much is a state issue. They could bring that to the table, with the solutions.
- This all ties into the South Florida Water Management District, so it goes well beyond us, but we can only control our problem.
- We could frame the questions to them and determine where we can impact things locally. The CAC and staff also can think about it, come back and have another discussion to gain a consensus on how to move forward.
- If we understand our 30-50% is coming from treated water and if we're at a tipping point and the county is going to grow 100% over the next 20 years, they'd better start planning for advanced water treatment.
- It's on the radar in Lee County, but not Collier. Have they made a full 100% commitment? Any new wastewater plants will be advanced.
- An area around Alico Road is getting developed as the standard for advanced wastewater treatment.
- The standards Florida follows are 40 years old, but we probably can't change the state.
- We need to get county staff involved and people who aren't usually engaged

with us.

- There is significant grant money available from the state to do some of these things and it's been available for three or four years.
- To have a lucid and useful discussion, it requires more county staff in the room.
- Maybe we can have a discussion with the county manager.
- Collier County pollution control deals with environmental quality, but that's for fresh-water bodies only. No one is looking at the estuary level of water quality where fresh water meets salt water. Those are the people we want to interact with because that's where the water quality, as it pertains to what the CAC does with the beaches, comes into play.
- There is no environmental department in the county, just pollution control, public works and wastewater.
- We could get the subcommittee together, go through some of this and come up with specific proposals.
- We need to put something together, go to the county and say here's what the data is telling us, here's what outside people are telling us, and this is your percent of the impact.
- For planning purposes, the TDC needs to understand this could affect future revenue.
- The county manager could tell them from the top down because we've tried the bottom up.
- As a committee, we aren't qualified to determine if it's 30% or 20%. We need a consultant, which we don't have access to, to tell us.
- We need to bring in outside environmental people who may be able to give us input and fresh ideas and tell us what they're hearing or seeing.

XII. Next Meeting

November 9, 2023, 1 p.m.

XIII. Adjournment

There being no further business for the good of the County, the meeting was adjourned by order of the Chairman at 3:20 p.m.

Collier County Coastal Advisory Committee

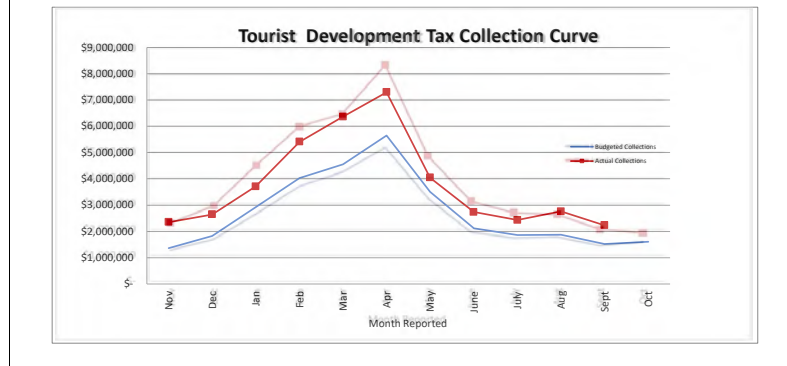
Joseph Burke, Chairman

These minutes were approved by the Committee on _____, (check one) as presented, _____ or as amended _____.

FY 23 TDT Collections Report						
30-Sep-2023						
Fund Reporting	Fund	Adopted Budget	Updated Annual Forecast	Budgeted YTD	YTD Actual	Variance to Budgeted YTD
Beach Park Facilities	183	1,175,500	1,561,162	1,118,047	1,504,009	385,962
TDC Promotion	184	11,544,400	15,988,097	10,980,161	15,326,526	4,346,365
Non-County Museums	193	627,100	832,841	596,450	800,499	204,049
TDC Admin	194	-	-	0	-	-
Beach Renourishment	195	12,799,000	16,998,143	12,173,442	16,371,239	4,197,797
Disaster Recovery	196	-	-	0	-	-
County Museums	198	2,000,000	2,000,000	1,902,249	2,000,000	97,751
TDC Capital	758	4,688,800	6,227,119	4,459,632	6,000,270	1,540,637
	Gross Budget	32,834,800	43,607,362	31,229,981	42,002,542	10,772,562
	Less 5% Rev Res	(1,641,700)				34.5%
	Net Budget	31,193,100				

Month Reported	Actual	Cum YTD	% Budget Collected to Date	% Variance FY22 Collections	% Variance FY21 Collections	% Variance FY20 Collections
Nov	2,354,075	2,354,075	7.17%	4.59%	98.49%	68.44%
Dec	2,646,668	5,000,743	15.23%	-9.02%	66.79%	27.96%
Jan	3,711,512	8,712,255	26.53%	-17.45%	29.23%	15.73%
Feb	5,410,959	14,123,214	43.01%	-9.39%	52.99%	19.16%
Mar	6,364,259	20,487,473	62.40%	-1.65%	54.11%	27.78%
Apr	7,297,461	27,784,934	84.62%	-12.66%	9.52%	80.83%
May	4,046,103	31,831,037	96.94%	-16.30%	0.58%	769.26%
June	2,736,288	34,567,325	105.28%	-11.54%	3.13%	322.53%
July	2,437,208	37,004,533	112.70%	-7.91%	-7.08%	115.15%
Aug	2,764,970	39,769,503	121.12%	7.24%	-3.86%	114.29%
Sept	2,233,040	42,002,543	127.92%	11.37%	8.53%	91.20%
Oct	-	42,002,543	127.92%	n/a	n/a	n/a
Total	42,002,543	42,002,543	YTD	-7.91%	22.79%	68.46%

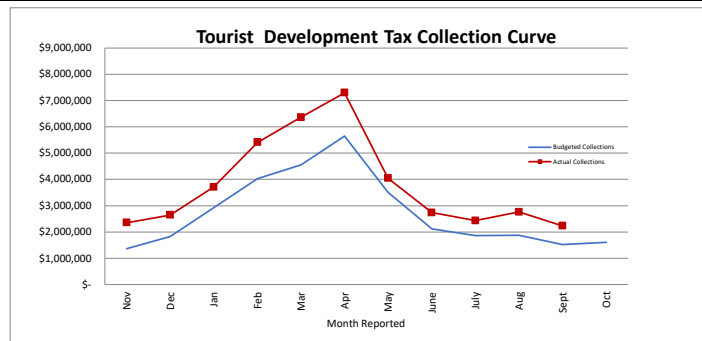
	5 Yr History-Cum	5 Yr History-Monthly	Budgeted Collections	Actual Collections	Budget to Actual Variance	Updated Forecast
Nov	4.2%	4.2%	1,365,982	2,354,075	988,093	2,354,075
Dec	9.7%	5.5%	1,821,219	2,646,668	825,448	2,646,668
Jan	18.6%	8.9%	2,919,311	3,711,512	792,201	3,711,512
Feb	30.9%	12.3%	4,026,494	5,410,959	1,384,464	5,410,959
Mar	44.7%	13.9%	4,555,896	6,364,259	1,808,363	6,364,259
Apr	62.0%	17.2%	5,656,127	7,297,461	1,641,334	7,297,461
May	72.7%	10.7%	3,509,645	4,046,103	536,458	4,046,103
June	79.1%	6.5%	2,119,755	2,736,288	616,533	2,736,288
July	84.8%	5.7%	1,867,801	2,437,208	569,407	2,437,208
Aug	90.5%	5.7%	1,869,836	2,764,970	895,134	2,764,970
Sept	95.1%	4.6%	1,517,914	2,233,040	715,126	2,233,040
Oct	100.0%	4.9%	1,604,819	-	-	1,604,819
Total	100.0%	100.0%	32,834,800	42,002,543	10,772,562	43,607,362



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	Gross Budget	32,834,800	43,607,362	31,229,981	42,002,542	10,772,562
	Less 5% Rev Res	(1,641,700)	32.81%		% Over/(Under) Bud	34.5%
	Net Budget	31,193,100				
Collections						
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Oct	-	42,002,543	127.92%	n/a	n/a	n/a
Total	42,002,543	42,002,543	YTD	-7.91%	22.79%	68.46%

Collier County Tourist Development Tax Revenue

Budget Comparison						
	5 Yr History-Cum	5 Yr History-Monthly	Budgeted Collections	Actual Collections	Budget to Actual Variance	Updated Forecast
Nov	4.2%	4.2%	1,365,982	2,354,075	988,093	2,354,075
Dec	9.7%	5.5%	1,821,219	2,646,668	825,448	2,646,668
Jan	18.6%	8.9%	2,919,311	3,711,512	792,201	3,711,512
Feb	30.9%	12.3%	4,026,494	5,410,959	1,384,464	5,410,959
Mar	44.7%	13.9%	4,556,896	6,364,259	1,808,363	6,364,259
Apr	62.0%	17.2%	5,656,127	7,297,461	1,641,334	7,297,461
May	72.7%	10.7%	3,509,645	4,046,103	536,458	4,046,103
June	79.1%	6.5%	2,119,755	2,736,288	616,533	2,736,288
July	84.8%	5.7%	1,867,801	2,437,208	569,407	2,437,208
Aug	90.5%	5.7%	1,869,836	2,764,970	895,134	2,764,970
Sept	95.1%	4.6%	1,517,914	2,233,040	715,126	2,233,040
Oct	100.0%	4.9%	1,604,819	-	-	1,604,819
Total	100.0%	100.0%	32,834,800	42,002,543	10,772,562	43,607,362
			% over/(under) budget		34.5%	32.81%



EXECUTIVE SUMMARY

Recommendation to approve Change Order No. 1 to Contract No. 18-7432-CZ with Taylor Engineering, Inc. for the construction-phase and final certification for the “Collier County Dune Restoration Planting Project” and make a finding that this item promotes tourism.

OBJECTIVE: To obtain approval of Change Order No. 1 to Contract No. 18-7432-CZ with Taylor Engineering, Inc. for the construction-phase and final certification for the “Collier County Dune Restoration Planting Project”.

CONSIDERATIONS: On May 23, 2023 (Item 16.B.6.), the Board approved a Work Order in a not-to-exceed amount of \$57,007 with Taylor Engineering, Inc. for the design services for the Collier County Dune Restoration Planting Project. Planting these areas will help stabilize the new berm, enhancing the protection of upland properties. At the time of Work Order approval, the Board directed staff to process a Change Order to provide for construction administration and/or post-design services prior to the expiration of the Work Order.

The Work Order currently includes services through Bid Assistance but does not include Construction Administration or Post-Design Services. Change Order No. 1 will allow for additional funding in the amount of \$32,780.00 for construction administration and post-design services and an additional 450 days to complete the construction-phase and final certification necessary to close out the project. Authorizing the proposed Change Order No. 1 will increase the project cost to \$89,787.

This item is consistent with the Infrastructure and Asset Management element of Collier County’s Strategic Plan by preparing for the impacts of natural disasters on our critical infrastructure and natural resources.

GROWTH MANAGEMENT IMPACT: This item is consistent with the Conservation and Coastal Management Element of the County’s Growth Management Plan.

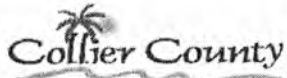
ADVISORY COMMITTEE RECOMMENDATIONS: This item will be presented to Coastal Advisory Committee (CAC) on November 9, 2023, and the Tourist Development Council (TDC) on November 20, 2023.

FISCAL IMPACT: Funding for this project is available in the Tourist Development Council (TDC) Beach Renourishment Fund (1105), Hurricane Ian Project (50280). The County will seek reimbursement from the Federal Emergency Management Agency (FEMA). Source of funding is tourist development tax.

LEGAL CONSIDERATIONS: This item is approved as to form and legality and requires majority vote for approval. – CMG

RECOMMENDATION: To approve Change Order No. 1 to Contract No. 18-7432-CZ with Taylor Engineering, Inc. for the construction-phase and final certification for the “Collier County Dune Restoration Planting Project” and make a finding that this item promotes tourism.

Prepared By: Andrew Miller, P.E., Coastal Zone Management, Capital Project Planning, Impact Fees and Program Management Division.



Procurement Services Change Order Form

Contract Modification Work Order Modification

Contract #: 18-7432-CZ Change #: 1 Purchase Order #: 4500224963 Project #: 50280.1

Contractor/Firm Name: Taylor Engineering, Inc. Contract/Project: Collier County Dune Restoration Planting

Project Manager Name: Andrew Miller, P.E. Division Name: Capital Project Planning, Impact Fees, & Program Management

Original Contract/Work Order Amount	\$ 57,007.00	5/23/23; 16.B.6	Original BCC Approval Date; Agenda Item #
Current BCC Approved Amount	\$ 57,007.00	5/23/23; 16.B.6	Last BCC Approval Date; Agenda Item #
Current Contract/Work Order Amount	\$ 57,007.00	3/9/2025	SAP Contract Expiration Date (Master)
Dollar Amount of this Change	\$ 32,780.00	57.50%	Total Change from Original Amount
Revised Contract/Work Order Total	\$ 89,787.00	57.50%	Change from Current BCC Approved Amount
Cumulative Changes	\$ 32,780.00	57.50%	Change from Current Amount

Completion Date, Description of the Task(s) Change, and Rationale for the Change

Notice to Proceed Date: 6/15/2023 Original Completion Date: 11/12/2023 Last Approved Date: 11/12/2023 Revised Date: 02/04/2025

of Days Added: 450 Select Tasks Add new task(s) Delete task(s) Change task(s) Other

Provide a response to the following: 1.) detailed and specific explanation/rationale of the requested change(s) to the task(s) and / or the additional days added (if requested); 2.) why this change was not included in the original contract; and, 3.) describe the impact if this change is not processed. Attach additional information from the Design Professional and/or Contractor if needed.

- This change is to add time and funding to cover post design services anticipated and specified in the executive summary on May 23, 2023 (Item 16.B.6.). Task 4 is needed for construction-phase services and final certification of the project. Adding these services will require an additional 450 days for completion. Task 5 is added for reimbursable expenses associated with task 4 that were not included in the original work order.
- This change was not included in the original work order but was anticipated to be added once a better understanding of the scope and size of the planting project was determined.
- If this change is not processed, the consultant will not be available for post design services to assist with construction administration and final certification of the project.

MillerAndrew

Digitally signed by MillerAndrew Date: 2023.09.18 10:31:07 -04'00'

Prepared by: (Andrew Miller, P.E. - Manager - Capital Project Planning, Impact Fees, and Program Management)

Acceptance of this Change Order shall constitute a modification to contract / work order identified above and will be subject to all the same terms and conditions as contained in the contract / work order indicated above, as fully as if the same were stated in this acceptance. The adjustment, if any, to the Contract shall constitute a full and final settlement of any and all claims of the Contractor / Vendor / Consultant / Design Professional arising out of or related to the change set forth herein, including claims for impact and delay costs.

Accepted by: Christopher B. Ellis Digitally signed by Christopher B. Ellis Date: 2023.09.18 14:53:25 -04'00'

Approved by: Johnssen_b Digitally signed by Johnssen_b Date: 2023.09.20 09:01:02 -04'00'

Approved by: ScottTrinity Digitally signed by ScottTrinity Date: 2023.09.27 16:28:24 -04'00'

Approved by: YilmazHeather Digitally signed by YilmazHeather Date: 2023.10.03 15:25:01 -04'00'

Revised: 01/14/2021

(Divisions who may require additional signatures may include on separate sheet.)

PROCUREMENT USE ONLY		
Admin	BCC Rpt	BCC ES

CAO

ATTEST:
Crystal K. Kinzel, Clerk of Courts
& Comptroller

BOARD OF COUNTY COMMISSIONERS
COLLIER COUNTY, FLORIDA

By: _____

By: _____
Rick LoCastro, Chairman

Dated: _____
(SEAL)

Approve as to form and legality:

By: _____

_____ County Attorney

PROCUREMENT USE ONLY		
Admin	BCC Rpt	BCC ES

CAO



September 8, 2023

Andrew Miller, P.E.
Manager
Collier County Coastal Zone Management
2685 South Horseshoe Drive, Unit 103
Naples, Florida 34104

Re: P.O. 4500224963 (Collier County Dune Restoration Planting Construction Plans, Technical Specifications, and Bid Assistance Services) — Request for Change Order No. 1

Dear Mr. Miller:

Taylor Engineering submits this request for change order to the above-referenced purchase order in support of the Collier County Dune Planting Project. Specifically, the proposed change order adds construction-phase support tasks and extends the project schedule accordingly. Exhibit A describes the proposed construction-phase support tasks and Exhibit B provides a detailed breakdown of the associated fees. Exhibit C lists Taylor Engineering's negotiated rates under Agreement No. 18-7432-CZ.

We greatly appreciate the opportunity to continue our service to Collier County. If you have any questions or require additional information, please contact me at (904) 731-7040 or cellis@taylorengeering.com.

Best regards,

Christopher B. Ellis
Vice President, Environmental Services

Attachments

TAYLOR ENGINEERING, INC.

**REQUEST FOR CHANGE ORDER NO. 1
PURCHASE ORDER NO. 4500224963**

**COLLIER COUNTY DUNE RESTORATION PLANTING CONSTRUCTION PLANS,
TECHNICAL SPECIFICATIONS, AND BID ASSISTANCE SERVICES**

This proposed change order adds two tasks involving construction-phases services and final project certification to the existing scope of work authorized by the above-referenced purchase order. The following describes the proposed additional tasks.

Task 4 Construction-Phase Services and Final Certification

At a location selected by the County, Taylor will participate in a pre-construction conference with the selected contractor and County representatives. The pre-construction conference will include:

- Reviewing the construction methodology, technical specifications, and schedule
- Reviewing the conditions of any regulatory permits
- Verifying construction access, staging and work areas

The pre-construction conference will occur after notice of award and prior to the notice to proceed. We assume that the County will hold the meeting at the County offices or near the project site. If necessary, we will review the contractor's pre-construction submittals prior to the meeting and during the meeting conduct any necessary discussion of those submittals. Taylor will also visit the project area prior to construction and document the pre-construction conditions with photographs. We assume construction will commence in the spring of 2024.

We will assist the County with administration of the construction contract, as needed. We will provide on-site observation the first day of construction to ascertain whether work is proceeding in general conformance with the plans, specifications, and regulatory authorizations. Throughout construction, we will visit the site once per week. Our visits will include observation of the work and construction means, methods, and sequences. To record each day of observation, we will fill out an observation report, which will become part of the project record. The reports will provide a log of construction progress, delays and/or issues.

We will remain available throughout construction to provide advice and consultation to the County through site visits and teleconferences. In that role, we will address questions pertaining to design, regulatory compliance, scheduling, payment, and any proposed changes to the project design. We will notify the County of any permit violations, work stoppages, or conflicts. The Taylor project manager will provide recommendations to the County for resolving construction issues. This scope of work includes budget for a total of eight site visits during the construction period. Should the construction schedule require more time than the amount budgeted for this task, we will contact the County project manager and discuss a modification of the scope of work to account for the additional level of effort.

When the County receives from the contractor a request to certify the project as “substantially complete,” the Taylor project manager will visit the project area to determine whether the project meets the substantially complete standard. Depending on the findings of the inspection, we will develop preliminary and final punch list items to be completed or corrected for substantial and final construction completion. With concurrence from the County, we will transmit this list to the contractor for execution. Upon verification that the contractor has completed the outlined items, we will provide a letter report to the County certifying the project substantially complete. We have budgeted for two meetings/inspections of the project area for this work.

Specifications will require the contractor to meet a survivability requirement of 80% survival at 180 days following construction completion. We will visit the site approximately 180 days following construction to complete a final plant survivability survey. We will coordinate the site visit with the County and contractor. After the 180-day visit following construction and assuming the plants achieve the survivability requirements, we will prepare and submit to the County a final statement of completion. If success is not achieved after 180 days, we will direct the contractor to replant deficient areas and adjust the planting density if necessary and will reassess the survivability approximately 180 days after the additional planting. Should the plants again not meet the survivability criteria, we will consult with the County project manager to revise this scope of work or identify other means of accomplishing the necessary project support work. This scope of work does not include preparation of an as-built drawing, certified by a professional engineer, depicting the areas restored with native dune vegetation; we assume such drawings are not required.

Task 5 Reimbursables

This task comprises reimbursable expenses associated with the construction-phase support services described in Task 4. Reimbursable expenses include travel expenses such lodging, meals, and mileage associated with observation and inspection site visits occurring during construction and final inspection and certification following the 180-day plant establishment period.

Schedule

The County issued the written notice to proceed (NTP) for the original purchase order (No. 4500224963) on June 13, 2023 with a total schedule of 150 days (5 months). The proposed change order adds 450 days (15 months) extending the total schedule to 600 days (20 months) to allow for completion of construction-phase support and final project certification services. The table below provides the estimated project schedule for the additional tasks in months from receipt of the County’s original NTP.

Task No.	Description	Months from Notice to Proceed																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
4	Construction-Phase Services and Final Certification																				
5	Reimbursables																				



Fee

The original project fee authorized under Purchase Order No. 4500224963 totaled \$57,007.00. Taylor will complete the additional work described in this change order request on a time and materials basis for a cost not to exceed \$32,780.00. Authorizing the proposed change order would increase the total project cost to \$89,787.00. Exhibit B provides a detailed breakdown of the proposed additional task fees. Taylor will invoice for completed work with labor billed based on the negotiated rates as documented in Agreement No. 18-7432-CZ and included herein as Exhibit C.

CAO

TAYLOR ENGINEERING, INC.
COST SUMMARY BY TASK (ESTIMATE)

P2023-159: COLLIER CO. DUNE PLANTING CONSTRUCTION-PHASE SERVICES

TASK 4: Construction-Phase Services and Final Certification

<i>Labor</i>	Hours	Hourly Rate	Cost	Task Totals
Engineer	32.0	130.00 ✓	4,160.00	✓
Senior Environmental Specialist	100.0	167.00 ✓	16,700.00	✓
Environmental Specialist	56.0	120.00 ✓	6,720.00	✓
Total Man-Hours		188.0		
Labor Cost				<u>27,580.00</u> ✓
<i>Total Task 4</i>				<u>\$27,580.00</u>

TASK 5: Reimbursables

<i>Labor</i>	Hours	Cost	Task Totals
<i>Non-Labor</i>		Cost	
Reimbursable Expenses		5,200.00	
Total Non-Labor Cost			<u>5,200.00</u> ✓
<i>Total Task 5</i>			<u>\$ 5,200.00</u>

Total \$32,780.00 ✓

Rate Schedule
(Agreement No. 18-7432-CZ)

Principal	\$231
Senior Project Manager	\$203
Project Manager	\$160
Senior Engineer	\$177
Engineer	\$130
Senior Inspector	\$126
Inspector	\$93
Senior Planner	\$150
Planner	\$120
Senior Designer	\$140
Designer	\$105
Environmental Specialist	\$120
Senior Environmental Specialist	\$167
Scientist/Geologist	\$115
Senior Scientist/Geologist	\$153
Marine Biologist/Hydrogeologist	\$120
Senior Marine Biologist/Hydrogeologist	\$145
Senior GIS Specialist	\$155
GIS Specialist	\$115
Clerical/Administrative	\$73
Senior Technician	\$103
Technician	\$83
Surveyor and Mapper	\$125
CADD Technician	\$107
Survey Crew - 2 man	\$145
Survey Crew - 3 man	\$180
Survey Crew - 4 man	\$215
Senior Architect	\$160
Architect	\$125

The above hourly rates are applicable to Time and Materials task(s) only. The above list may not be all inclusive. Hourly rates for additional categories required to provide particular project services shall be mutually agreed upon by the County and firm, in writing, on a project by project basis, as needed, and will be set forth in the Work Order agreed upon by the parties.

Grant Funded: The above rates are for purposes of providing estimate(s), as required by the grantor agency.

EXECUTIVE SUMMARY

Recommendation to approve a Work Order with Humiston & Moore Engineers to provide professional engineering services for State required Annual Monitoring of Collier County Beaches and Inlets for 2024 under Contract No. 18-7432-CZ for time and material not to exceed \$157,840 and make a finding that this item promotes tourism (Fund 1105, Project No. 90536).

OBJECTIVE: To move forward with the annual required beach and inlet monitoring surveys and reports for Collier County Beaches and Inlets for 2024.

CONSIDERATIONS: The Coastal Zone Management (CZM) Section is tasked with the maintenance and monitoring of over thirty (30) miles of coastline, beaches, estuaries, channels, and bays. CZM has specific goals, objectives, and criteria to meet as identified within the Collier County Growth Management Plan Land Development Code, and the Codes of Laws and Ordinances regarding the county's coastal aquatic resources. In order to meet these goals and objectives, CZM has been charged with a variety of programs including the implementation of beach re-nourishment and dredging projects, as well as any related operations that are required to maintain the health, aesthetics, and safety of the county's coastal waterways and communities.

Yearly physical monitoring of the beaches and inlets is required by FDEP permit. Results of this report are used to evaluate, recommend, and prioritize annual beach segment renourishment.

FISCAL IMPACT: Funding in the amount of \$157,840.00 is available within Tourist Development Tax Beach Renourishment Fund (195), Project 90536 (County/Naples Beach Monitoring).

FDEP cost-share funding will be requested if eligible at a future date to reimburse Collier County for a portion of the completed work.

GROWTH MANAGEMENT IMPACT: This item is consistent with the Conservation and Coastal Management Element of the County's Growth Management Plan.

ADVISORY COMMITTEE RECOMMENDATIONS: This item will be presented to the Coastal Advisory Committee (CAC) on November 9, 2023, and the Tourist Development Council (TDC) on November 20, 2023.

LEGAL CONSIDERATIONS: This item is approved as to form and legality and requires majority vote for approval. – CMG

RECOMMENDATION: To approve a Work Order with Humiston & Moore Engineers to provide professional engineering services for State required Annual Monitoring of Collier County Beaches and Inlets for 2024 under Contract No. 18-7432-CZ for time and material not to exceed \$157,840 and make a finding that this item promotes tourism (Fund 195, Project No. 90536).

Prepared By: Andrew Miller, P.E., Coastal Zone Management, Capital Project Planning, Impact Fees, and Program Management Division

WORK ORDER/PURCHASE ORDER

Contract 18-7432-CZ “Professional Services Library – Coastal Engineering Category”

Contract Expiration Date: March 9, 2025

This Work Order is for professional Engineering Services for work known as:

Project Name: Collier County Beaches and Inlets Annual Monitoring for 2024

Project No: 90536.1

The work is specified in the proposal dated August 29, 2023, which is attached hereto and made a part of this Work Order. In accordance with Terms and Conditions of the Agreement referenced above, this Work Order/Purchase Order is assigned to: Humiston & Moore Engineers

Scope of Work: As detailed in the attached proposal and the following:

- * Task 1a Collier Beach – Data Collection
- * Task 1b Collier Beach – Initial and Final Monitoring Report
- * Task 2a Wiggins Pass – Data Collection
- * Task 2b Wiggins Pass – Initial and Final Monitoring Report
- * Task 3a Doctors Pass – Data Collection
- * Task 3b Doctors Pass – Initial and Final Monitoring Report
- * Task 4a Central Marco Beach – Data Collection
- * Task 4b Central Marco Beach – Final Monitoring Report
- * Task 5 2024 Aerial Image Book

Schedule of Work: Complete work within 270 days from the date of the Notice to Proceed which is accompanying this Work Order. The Consultant agrees that any Work Order that extends beyond the expiration date of Agreement # 18-7432-CZ will survive and remain subject to the terms and conditions of that Agreement until the completion or termination of this Work Order.

Compensation: In accordance with the Agreement referenced above, the County will compensate the Firm in accordance with following method(s): Negotiated Lump Sum (NLS) Lump Sum Plus Reimbursable Costs (LS+RC) Time & Material (T&M) (established hourly rate – Schedule A) Cost Plus Fixed Fee (CPFF), as provided in the attached proposal.

Task 1a	\$ 37,960.00 (LS)
Task 1b	\$ 26,528.00 (T&M)
Task 2a	\$ 32,515.00 (LS)
Task 2b	\$ 12,688.00 (T&M)
Task 3a	\$ 12,850.00 (LS)
Task 3b	\$ 9,318.00 (T&M)
Task 4a	\$ 12,705.00 (LS)
Task 4b	\$ 9,673.00 (T&M)
Task 5	\$ 3,603.00 (T&M)
TOTAL FEE	\$ 157,840.00



PREPARED BY: **MillerAndrew** Digitally signed by MillerAndrew
Date: 2023.09.11 07:26:57
-04'00'

Andrew Miller, Manager

Date

APPROVED BY: **Johnssen_b** Digitally signed by Johnssen_b
Date: 2023.09.20 09:10:42
-04'00'

Beth Johnssen, Division Director

Date

MLDA

APPROVED BY: **ScottTrinity** Digitally signed by ScottTrinity
Date: 2023.10.04 09:53:19 -04'00'

Trinity Scott, Department Head

Date

By the signature below, the Firm (including employees, officers and/or agents) certifies, and hereby discloses, that, to the best of their knowledge and belief, all relevant facts concerning past, present, or currently planned interest or activity (financial, contractual, organizational, or otherwise) which relates to the proposed work; and bear on whether the Firm has a potential conflict have been fully disclosed.

Additionally, the Firm agrees to notify the Procurement Director, in writing within 48 hours of learning of any actual or potential conflict of interest that arises during the Work Order and/or project duration.

ACCEPTED BY: Humiston & Moore Engineers

Brett Moore Digitally signed by Brett Moore
Date: 2023.09.14 07:58:33 -04'00'

Brett Moore, President

Date

(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, the parties hereto, have each, respectively, by an authorized person or agent, have executed this Work Order on the date and year first written below.

ATTEST:

, Clerk of Courts

BOARD OF COUNTY COMMISSIONERS
COLLIER COUNTY, FLORIDA

By: _____

By: _____
, Chairman

Dated: _____
(SEAL)

Humiston & Moore Engineers

By: **Brett Moore** Digitally signed by Brett Moore
Date: 2023.09.14 08:18:40 -04'00'

Signature

First Witness


Brett D. Moore, President
↑Type/print signature and title↑

↑Type/print witness name↑

Second Witness

↑Type/print witness name↑

Approved as to Form and Legality:



Assistant County Attorney

Print Name





**HUMISTON
& MOORE
ENGINEERS**

COASTAL
ENGINEERING DESIGN
AND PERMITTING

5679 STRAND COURT
NAPLES, FLORIDA 34110
FAX: 239 594 2025
PHONE: 239 594 2021

August 29, 2023
(Proposal valid for 120 days.)

Andrew Miller, Principal Project Manager
Coastal Zone Management (CZM)
Collier County Government
2685 South Horseshoe Drive Unit 103
Naples, FL 34104

**Re: Proposal for Collier County Beaches and Inlets Annual Monitoring for 2024
Collier County Contract 18-7432-CZ; HM File No 29-018.2023 Beach-Monitor**

Dear Andy:

Enclosed is a proposal for the Collier County Beaches, Wiggins Pass Inlet, Doctors Pass Inlet, Central Marco Beach, (includes survey) monitoring reports for 2024. The completion date for all work is estimated to be 270 days from the date of the Notice to Proceed. Rectified aerial images acquired for 2024, provided by the Collier County Property Appraiser's Office, are to be submitted to the Department of Environmental Protection (DEP) by Humiston and Moore Engineers (HM) as part of the work described below for all projects and an aerial image book provided to CZM in pdf format for online posting.

The monitoring report and survey for South Marco is not required for 2024, and the borrow area survey for South Marco is also not required. The monitoring for Doctor Pass Erosion Control Structures is complete. These items are not included in the scope of work for the 2024 monitoring.

Note, the dates shown reflect an anticipated date for the survey and report. These anticipated dates are dependent upon the authorization date, release of the rectified aerial images, and other unforeseen conditions such as weather.

Task 1 Collier Beach- Data Collection, Initial and Final Monitoring Report

Conduct the annual monitoring survey for Collier Beach Nourishment Project consistent with the monitoring plan approved by the DEP. This scope of work consists of DEP monuments R-17 to R-84 and R-58A. (Note: R-17 to R-21 will be surveyed as part of Task 2.)

- Survey is scheduled to be completed by January 31, 2024 pending unforeseen conditions such as poor weather conditions.
- An initial monitoring summary of the analysis will be submitted to CZM 30 days after the completion of the survey.
- A Final Monitoring Report will be submitted to DEP & CZM 90 days after the completion of the survey.

The initial monitoring summary includes beach profiles, shoreline and volume change from the previous monitoring survey, as well as from the most recent nourishment project, beach width

and comparison to the *Design Standard*. The Final Monitoring Report will include the same information contained in the initial monitoring summary as well as other information in compliance with the DEP physical monitoring requirements and applicable recommendations.

Task 1a. Sub Total Data Collection Budget (SDI)	\$ 37,960 LS
Task 1b Initial and Final Monitoring Report (H&M).....	\$ 26,528 TM
Total Task 1 Subtotal (SDI + H&M).....	\$ 64,488

Deliverable: One electronic copy of the Initial Monitoring Report and Final Monitoring Report.

Task 2 Wiggins Pass – Data Collection, Initial and Final Monitoring Report

Conduct the annual monitoring survey for the Wiggins Pass Navigation Channel Expansion and Maintenance Dredging Project consistent with the monitoring plan approved by DEP. This scope of work consists of FDEP monuments R-10 to R-22 including half monuments, the MHWL from R-17 NE for a minimum of 1500 feet. Stations -2+00 to 15+00 (from R-15 to R-18.5) and the navigation channel with grid lines 100 feet apart (C-3 thru C-34, CN-35 thru CN37).

- Survey is scheduled to be completed by February 28, 2024 pending unforeseen conditions such as poor weather conditions.
- An initial monitoring summary of the analysis will be submitted to CZM 30 days after the completion of the survey.
- A Final Monitoring Report will be submitted to CZM and DEP 90 days after the completion of the survey.

The initial monitoring summary includes inlet and beach profiles, shoreline and volume change from the previous monitoring survey and previous dredging project, beach width and comparison to the *Design Standard* if applicable. The Final Monitoring Report will include the same information contained in the initial monitoring summary as well as other information in compliance with the DEP physical monitoring requirements and applicable recommendations.

Task 2a. Sub Total Data Collection Budget (SDI)	\$ 32,515 LS
Task 2b Initial and Final Monitoring Report (H&M).....	\$ 12,688 TM
Total Task 2 Subtotal (SDI + H&M).....	\$ 45,203

Deliverable: One electronic copy of the Initial Monitoring Report and Final Monitoring Report.

Task 3 Doctors Pass – Data Collection, Initial and Final Monitoring Report

Conduct the annual monitoring survey for Doctors Pass Maintenance Dredging Project consistent with the monitoring plan approved by the DEP. This scope of work consists of 77 Dredge Template Profiles.

- Survey is scheduled to be completed by February 28, 2024 pending unforeseen conditions such as poor weather conditions.
- An initial monitoring summary of the analysis will be submitted to CZM 30 days after the completion of the survey.



- A Final Monitoring Report will be submitted to CZM and DEP 90 days after the completion of the survey.

The initial monitoring summary includes inlet profiles, volume change from the previous monitoring survey and previous dredging project. The Final Monitoring Report will include the same information contained in the initial monitoring summary as well as other information in compliance with the DEP physical monitoring requirements and applicable recommendations.

Task 3a. Sub Total Data Collection Budget (SDI)\$ 12,850 LS

Task 3b Initial and Final Monitoring Report (H&M).....\$ 9,318 TM

Total Task 3 Subtotal (SDI + H&M).....\$ 22,168

Deliverable: One electronic copy of the Initial Monitoring Report and Final Monitoring Report.

Task 4 Central Marco Beach- Data Collection & Final Monitoring Report

Conduct the annual monitoring survey for the Central Marco Beach Regrade Project consistent with the DEP permit and the requirements of the US Fish & Wildlife Service (FWS). This scope of work consists of DEP monuments R-130 to R-146*. One report is to be submitted to the DEP and FWS in compliance with the annual monitoring.

- Survey is scheduled to be completed by March 31, 2024 pending unforeseen conditions such as poor weather conditions.
- A Final Monitoring Report will be submitted to CZM and DEP 90 days after the completion of the survey.

Task 4a. Sub Total Data Collection Budget (SDI)\$ 12,705 LS

Task 4b Final Report (H&M)\$ 9,673 TM

Total Task 4 Subtotal (SDI + H&M).....\$ 22,378

Deliverable: One electronic copy of the Final Monitoring Report.

*Survey to include R130 thru R135, R135.5, R136, R136.5, R137, R137.5, and R138 thru R146.

Task 5 2024 Aerial Image Book

Prepare an updated aerial image book for the Collier County Beaches ranging from DEP reference monument R-1 south to R-89 and from Hideaway Beach reference monument H-16 including the entrance to Collier Bay south to DEP reference monument R-148 including Caxambas Pass. The monument locations will be overlaid along with the names of existing structures as noted in the 2023 book. The rectified images will be the latest available from the County Appraiser's Office. The ECL, latest MHWL, and vegetation line will be shown along with the distance from each to the 2003 Baseline.

Task 5. Aerial Image Book (H&M).....\$ 3,603 TM

Deliverable: One electronic copy of the final Aerial Image Book.



Total (SDI + H&M)\$ 157,840 Tasks 1 thru 5

Tasks will be billed on a time and materials basis, unless otherwise noted. The budgets for these tasks may therefore be considered as not-to-exceed amounts with the understanding that in the event regulatory requirements or requests from County staff result in Additional Services exceeding the estimated budget amounts, a budget amendment will be requested.

Please call if you have any questions.

Sincerely yours,

HUMISTON & MOORE ENGINEERS



Brett D. Moore, P.E.
President

Collier County Beaches and Inlets Annual Monitoring 2024 Contract 18-7432-CZ

Project No. 90536

Estimated Summary

Task 1 Collier Beach - Data Collection, Initial & Final Monitoring Report							
Task 1a Data collection SDI (LS)						37,960.00	
							37,960.00 (LS)
Task 1b Initial & Final Monitoring Report HM (T&M)							
			RATE/UNIT	HOURS/QTY	COST	MARKUP	AMOUNT
PRN2	Principal		231	20			4,620.00
SDS	Engineer		130	80			10,400.00
SIN	Scientist/Geologist		115	40			4,600.00
SRT	Senior Technician		103	30			3,090.00
TEC	Technician		83	46			3,818.00
							26,528.00 (TM)
Total:							64,488.00
Task 2 Wiggins Pass - Data Collection, Initial & Final Monitoring Report							
Task 2a Data collection SDI (LS)						32,515.00	
							32,515.00 (LS)
Task 2b Initial & Final Monitoring Report HM (T&M)							
			RATE/UNIT	HOURS/QTY	COST	MARKUP	AMOUNT
PRN2	Principal		231	8			1,848.00
SDS	Engineer		130	40			5,200.00
SIN	Scientist/Geologist		115	20			2,300.00
SRT	Senior Technician		103	21			2,163.00
CAD	Cadd Technician		107	11			1,177.00
							12,688.00 (TM)
TOTAL							45,203.00
Task 3 Doctors Pass - Data Collection, Initial & Final Monitoring Report							
3a Data Collection SDI (LS)						12,850.00	
							<u>12,850.00</u> (LS)
3b Initial & Final Monitoring Report HM (T&M)							
			RATE/UNIT	HOURS/QTY	COST	MARKUP	AMOUNT
PRN2	Principal		231	8			1,848.00
SDS	Engineer		130	53.5			6,955.00
SRT	Senior Technician		103	5			515.00
							9,318.00 (TM)
TOTAL							22,168.00
Task 4 Central Marco - Data Collection & Final Monitoring Report							
4a Data Collection SDI (LS)						12,705.00	
							<u>12,705.00</u> (LS)
4b Final Monitoring Report HM (T&M)							
			RATE/UNIT	HOURS/QTY	COST	MARKUP	AMOUNT
PRN2	Principal		231	10			2,310.00
SDS	Engineer		130	40			5,200.00
SRT	Senior Technician		103	21			2,163.00
							<u>9,673.00</u> (TM)
Total:							22,378.00
Task 5 2024 Aerial Image Book							
							HM (T&M)
			RATE/UNIT	HOURS/QTY	COST	MARKUP	AMOUNT
PRN2	Principal		231	3			693.00
SDS	Engineer		130	16			2,080.00
TEC	Technician		83	10			830.00
							3,603.00 (TM)

Total: 157,840.00





Sea Diversified, Inc.

160 Congress Park Drive, #114
Delray Beach, Florida 33445
Phone: 561-243-4920
www.seadiversified.com

August 22, 2023

Mr. Steve Foge, P.E.
Humiston & Moore Engineers
5679 Strand Court, Suite 110
Naples, Florida 34110

*Sent via electronic mail 08/22/2023
(SF@HumistonandMoore.com)*

**Re: Proposal / Agreement for Professional Services
Collier County 2024 Physical Monitoring Survey
Collier Beach, Wiggins Pass, Doctors Pass & Central Marco
Collier County, Florida
Sea Diversified P.N. 23-3041**

Dear Mr. Foge:

In accordance with your request, Sea Diversified, Inc. (SDI) is pleased to submit the following proposal for professional services. The scope of work shall include bathymetric data collection and onshore/offshore beach profile surveys along Collier Beach, Central Marco Island, Wiggins Pass and Doctors Pass. In accordance with your summary of scope provided on August 18, 2022, the 2024 monitoring survey effort shall encompass the following:

- Task One: Collier Beach & Offshore Profiles**
- Beach profiles at R23 to R84 (62 profiles) and R58A, totaling 63 profiles
- Task Two: Wiggins Pass Bathymetry and Beach Profiles**
- Beach profiles at R-10 to R-22, including intermediate profiles (R-10.5, R-11.5, R-12.5, R-13.5, R-14.5, R-15.5, R-17.5, R-18.5, R-19.5, R-20.5, R-21.5), totaling 24 transects
 - MHWL from R-17 to the NE 1,500 feet on the south side of the inlet
 - Entrance channel, Stations -2+00 to 15+00 (R-15 to R-18.5), totaling 18 transects
 - Internal channels C-3 to C-34, CN-35, CN-36 and CN-37, totaling 35 transects
- Task Three: Doctors Pass Bathymetry - All inlet stations (77 transects)**
- Task Four: Central Marco Island Beach & Offshore Profiles**
Beach profiles at R-130 to R-146 including R-135.5, R-136.5 and R-137.5, totaling 20 profiles.

General:

SDI shall provide supervision, field / office support staff and equipment to perform the scope of work described, herewith. All work shall be conducted to the highest level of industry standards and under the responsible charge of a Professional Surveyor and Mapper registered in the State of Florida. All work shall meet or exceed the Standards of Practice (Standards) set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J-17, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes, and in compliance with the Florida Department of Environmental Protection (FDEP) Bureau of Beaches and Coastal Systems Monitoring Standards for Beach Erosion Control Projects, Sections 01000 and 01100 (Updated October 2014). If time permits, deviations from the scope of work shall be addressed via formal approved addendum to the executed Agreement for Professional Services.

Horizontal and Vertical Data:

Horizontal Datum: Feet, relative to the Florida State Plane Coordinate System, East Zone, North American Datum of 1983 (NAD83)
Vertical Datum: Feet, relative to the North American Vertical Datum of 1988 (NAVD88)



Horizontal / Vertical Control Verification

SDI will verify the horizontal and vertical position of all found and used monuments for the survey. Horizontal and vertical positions will be verified via Real-Time Kinematic GPS procedures. In the event vertical obstructions prohibit the use of GPS, conventional methodologies will be employed.

Temporary control points (TBM's) will be set in the event a monument cannot be readily found. As practical, the TBM will be set at the reference monument location. If the specified location is not practical, the TBM will be set at a more suitable location either landward or seaward along the specified profile azimuth. H&M shall be notified of any missing monuments and shall be provided with the horizontal and vertical position of all TBM's.

Onshore Profile Data Collection - Topographic

Onshore profile data collection shall extend from the FDEP profile control monument seaward to approximate wading depth or as required to overlap the offshore profile data a minimum distance of fifty (50) feet. Profile data collection shall extend landward to the seawalls or fifty (50) feet landward of the five-foot (+5.0') NAVD88 contour line and shall include location of the seaward vegetation line.

In the event there is a physical barrier on line between the beach and the monument, every reasonable attempt shall be made to extend the survey beyond the barrier to the reference monument position. It is understood that certain physical barriers may be considered impassible such as large buildings, private residences with difficult access, waterbodies, mangroves or other heavy vegetation requiring line clearing. At the discretion of the surveyor, data collection will be terminated at the first physical barrier if deemed impassible using practical means of extending the survey landward. Profiles terminated due to impassible barriers will be noted in the field books.

Profile data will be collected using either conventional differential leveling or Real-time Kinematic Differential Global Positioning techniques. Data points will be collected at a maximum interval of twenty-five (25) feet and at all grade breaks (exceeding one-foot) and material changes along the profile. In the event the profile control monument is located more than three hundred (300) feet landward of the vegetation line, data points shall be extended to intervals of one hundred (100) feet from two hundred (200) feet landward of the approximate vegetation line to the monument location. The reference monument shall be recorded as range 0.0 along the profile with positive ranges extending seaward of the monument and negative ranges extending landward of the monument.

Offshore Profile Data Collection - Bathymetric

Bathymetric profile data shall be collected as close to high tide as practical and shall extend landward to a depth that overlaps the onshore portion of the survey a minimum distance of fifty (50) feet. Bathymetric profile data collection shall extend seaward to the negative thirteen (-13) feet NGVD29 contour (approximately -14.5' NAVD88). Bathymetric data collection shall occur as close to the time of the onshore topographic survey as practical, which shall not exceed seven (7) days of time difference between the two (2) survey events. Maximum wave height during the course of bathymetric data collection shall be three (3) feet.

Bathymetric data shall be collected using an automated hydrographic system comprised of a survey launch equipped with a marine grade sounder, differential global positioning system and computer-based navigation / data collection system, and when deemed necessary may be interfaced with a DMS-05 Motion Sensor System. The motion sensor will be employed as necessary to reduce the effects of vessel heave, pitch and roll during the course of data collection. The sounder shall be calibrated via bar checks prior to the start of the survey. Prior to the start of the survey a tide staff or gauge will be established in proximity to the project for recording water



levels during the course of the data collection activities. The tide staff or gauge will be set relative to published control in the vicinity of the project.

Digital Ground Photography

During the course of field data collection, digital photographs shall be taken at approximate mid-beach along each profile line. Three (3) photographs shall be captured, one each shore-parallel north and south of the profile and one towards the monument location. An additional photograph of the monument or TBM shall be taken with sufficient clarity to read the monument stamping. Digital images shall be provided to H&M in .jpg format at a minimum 640 x 480 resolution.

Data Processing and Final Deliverables

Upon completion of field survey activities, data will be edited and reduced to the project datum and translated to an x,y,z, ASCII format for submittal to H&M. H&M will be provided the following deliverables:

1. Survey report certified by a Professional Surveyor and Mapper.
2. Description of all monuments and TBM's used for the survey, including identification, stamping, coordinates, elevations and profile azimuths. Control description shall be provided in both hardcopy and digital formats (ASCII and Excel), as applicable.
3. Bathymetric data and / or profile data in ASCII x,y,z format
4. Digital photographs in .jpg format with appropriate labeling
5. Metadata files

Cost Breakdown:

Task One:	\$ 37,960.00
Task Two:	\$ 32,515.00
Task Three:	\$ 12,850.00
Task Four:	\$ <u>12,705.00</u>
Total:	\$ 96,030.00

Should you have questions or require additional information please do not hesitate to contact us at your convenience. We appreciate this opportunity to assist you with this project and look forward to hearing from you soon.

Best Regards,

William T. Sadler Jr., P.E., P.S.M.
 President, Sea Diversified, Inc.

Approved this ____ day of _____, 2023

 Mr. Steve Foge, P.E. or Authorized
 Humiston & Moore Engineers Representative



* * * * *

SCHEDULE B-ATTACHMENT 1
RATE SCHEDULE

Title	Hourly Rate
Principal	\$231
Senior Project Manager	\$203
Project Manager	\$160
Senior Engineer	\$177
Engineer	\$130
Senior Inspector	\$126
Inspector	\$93
Senior Planner	\$150
Planner	\$120
Senior Designer	\$140
Designer	\$105
Environmental Specialist	\$120
Senior Environmental Specialist	\$167
Scientist/Geologist	\$115
Senior Scientist/Geologist	\$153
Marine Biologist/Hydrogeologist	\$120
Senior Marine Biologist/Hydrogeologist	\$145
Senior GIS Specialist	\$155
GIS Specialist	\$115
Clerical/Administrative	\$73
Senior Technician	\$103
Technician	\$83
Surveyor and Mapper	\$125
CADD Technician	\$107
Survey Crew - 2 man	\$145
Survey Crew - 3 man	\$180
Survey Crew - 4 man	\$215
Senior Architect	\$160
Architect	\$125

The above hourly rates are applicable to Time and Materials task(s) only. The above list may not be all inclusive. Hourly rates for additional categories required to provide particular project services shall be mutually agreed upon by the County and firm, in writing, on a project by project basis, as needed, and will be set forth in the Work Order agreed upon by the parties.

Grant Funded: The above rates are for purposes of providing estimate(s), as required by the grantor agency.

* * * * *

Page 2 of 3

First Amendment to Agreement # 18-7432-CZ
Humiston & Moore Engineers, P.A.





Direct Select Form

Request Date	Contract No.	Proposal Cost Estimate	Construction Cost Estimate
08.17.23	18-7432-CZ	\$180,000	N/A
Requested By (Use name as it appears in Outlook): Andrew Miller		Division / Department: Capital Project Planning, Impact Fees, & Program Management	
Administrative Agent (If different from Requestor):			
Library Category: Coastal Engineering		Vendor Name: Humiston & Moore Engineers, P.A.	
Work Assignment Title: 2024 Collier County Beaches and Inlets Annual Monitoring			
Description of Requested Services: Permit-required annual beach and inlet monitoring and report.			
Justification: (Select all that apply and explain below)		<input checked="" type="checkbox"/> Past experience with project <input type="checkbox"/> Continuation of previous work assignment <input type="checkbox"/> Unique qualifications <input type="checkbox"/> Other	
Comments / Explanation of Direct Select: H&M performs this work annually and is best suited to continue based on their experience and their knowledge of the County's requirements. 2023 - PO 4500225080 2022 - PO 4500215649 2021 - PO 4500208281			
Requestor: Andrew Miller	Signature: MillerAndrew	Digitally signed by MillerAndrew Date: 2023.08.17 13:50:11 -04'00'	Date:
Division Director: Beth Johnssen	Signature: Johnssen_b	Digitally signed by Johnssen_b Date: 2023.08.22 10:32:58 -04'00'	Date:
Procurement Director:	Signature: SarahHamilton	Digitally signed by SarahHamilton Date: 2023.08.28 08:47:14 -04'00'	Date:

Return this completed form to: ProcurementSrvcsReq@colliercountyfl.gov.

Please be sure to attach the fully approved form to the requisition in SAP.



EXECUTIVE SUMMARY

Recommendation to approve the purchase of a John Deere 6135E Cab Tractor from Deere & Company utilizing Cooperative Procurement Piggyback 222 “110719 - JDC Agricultural Tractors & Equipment”, using Tourist Development Tax fund 1105 in the amount of \$102,422.49, and make a finding that this expenditure promotes tourism.

OBJECTIVE: To replace a beach tractor used to maintain Collier County beaches.

CONSIDERATIONS: Collier County Coastal Zone Management (CZM) utilizes cab-enclosed 4-wheel drive tractors to tow various beach cleaning attachments which are used for raking and debris removal from the County’s beaches. The harsh saltwater environment in which the tractors are used causes corrosion in the equipment, deteriorating various metal parts of the tractors. The corrosion limits the tractors’ life cycle, causing the replacement of the equipment sooner to sustain quality levels and maintain the County’s beaches. The suggested replacement of the current Tractor (CC2-1427) is noted on the FY2024 Recommended Non-Motor Pool Capital Equipment Replacement List (dated: 12/2/2022) for the Transportation Management Services Department and was budgeted in the FY24.

One of CZM's current tractors (CC2-1427) purchased in 2016, has significant corrosion, high engine hours, and has had significant repairs and maintenance costs. The County's Fleet Management has indicated the tractor has met the criteria to be replaced and is on the FY24 replacement recommendation list. CZM received a quote from Deere & Company, in the amount of \$102,422.49 using cooperative procurement “Piggyback 222” program through Sourcewell contract “110719-JDC Agricultural Tractors & Equipment”.

This item is consistent with the Quality of Place Objectives of the County’s Strategic Plan.

GROWTH MANAGEMENT IMPACT: This item is consistent with the Conservation and Coastal Management Element of the Growth Management Plan.

ADVISORY COMMITTEE RECOMMENDATIONS: This item will be presented to the Coastal Advisory Committee (CAC) on November 9, 2023, and the Tourist Development Council (TDC) on November 20, 2023.

LEGAL CONSIDERATIONS: This item is approved as to form and legality and requires majority vote for approval. – CMG

FISCAL IMPACT: Funding in the amount of \$102,422.49, is available within the Tourist Development Tax Beach Renourishment Fund (1105) in the Beach Cleaning project (90533). Source of funding is tourist development tax.

RECOMMENDATION: To approve the purchase of a John Deere 6135E Cab Tractor from Deere & Company utilizing Cooperative Procurement Piggyback 222 “110719 - JDC Agricultural Tractors & Equipment”, using Tourist Development Tax Fund 1105 in the amount of \$102,422.49, and make a finding that this expenditure promotes tourism.

Prepared By: Andrew Miller, P.E., Coastal Zone Management, Capital Project Planning, Impact Fees, and Program Management Division



JOHN DEERE

Customer:

Quotes are valid for 30 days from the creation date or upon contract expiration, whichever occurs first.

A Purchase Order (PO) or Letter of Intent (LOI) including the below information is required to proceed with this sale. The PO or LOI will be returned if information is missing.

- Vendor: Deere & Company
- 2000 John Deere Run
Cary, NC 27513
- Signature on all LOIs and POs with a signature line
- Contract name or number; or JD Quote ID
- Sold to street address
- Ship to street address (no PO box)
- Bill to contact name and phone number
- Bill to address
- Bill to email address (required to send the invoice and/or to obtain the tax exemption certificate)
- Membership number if required by the contract

For any questions, please contact:

Patrick Crews

Everglades Equipment Group
9501 State Route 82
Fort Myers, FL 33905

Tel: 239-332-5045

Fax: 239-332-7854

Email: pcrews@evergladesfarmequipment.com

Quotes of equipment offered through contracts between Deere & Company, its divisions and subsidiaries (collectively "Deere") and government agencies are subject to audit and access by Deere's Strategic Accounts Business Division to ensure compliance with the terms and conditions of the contracts.





ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:

Everglades Equipment Group
9501 State Route 82
Fort Myers, FL 33905
239-332-5045
info@efe1963.com

Quote Summary

Prepared For:

COLLIER COUNTY PARKS & RECREATION COASTAL
ZONE MGMT
3300 SANTA BARBARA BLVD
NAPLES, FL 34116
Business: 239-455-9282

Delivering Dealer:

Everglades Equipment Group
Patrick Crews
9501 State Route 82
Fort Myers, FL 33905
Phone: 239-332-5045
pcrews@evergladesfarmequipment.com

Chris Darco
239 298 6132

Quote ID: 29467175
Created On: 22 August 2023
Last Modified On: 22 August 2023
Expiration Date: 22 September 2023

Equipment Summary	Suggested List	Selling Price	Qty	Extended
JOHN DEERE 6135E Cab Tractor (114 PTO hp) Contract: Sourcewell Ag Tractors 110719-JDC (PG 1P CG 70) Price Effective Date: August 21, 2023	\$ 132,271.70	\$ 102,422.49 X	1 =	\$ 102,422.49
Equipment Total				\$ 102,422.49

* Includes Fees and Non-contract items

Quote Summary

Equipment Total	\$ 102,422.49
Trade In	
SubTotal	\$ 102,422.49
Est. Service Agreement Tax	\$ 0.00
Total	\$ 102,422.49
Down Payment	(0.00)
Rental Applied	(0.00)
Balance Due	\$ 102,422.49

Salesperson : X _____

Accepted By : X _____





JOHN DEERE



Selling Equipment

Quote Id: 29467175 Customer Name: COLLIER COUNTY PARKS & RECREATION COASTAL
ZONE MGMT

ALL PURCHASE ORDERS MUST BE MADE OUT TO (VENDOR):
Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT TO DELIVERING DEALER:
Everglades Equipment Group
9501 State Route 82
Fort Myers, FL 33905
239-332-5045
info@efe1963.com

JOHN DEERE 6135E Cab Tractor (114 PTO hp)

Hours:

Suggested List *

Stock Number:

\$ 132,271.70

Contract: Sourcewell Ag Tractors 110719-JDC (PG 1P CG
70)

Selling Price *
\$ 102,422.49

Price Effective Date: August 21, 2023

* Price per item - includes Fees and Non-contract items

Code	Description	Qty	List Price	Discount%	Discount Amount	Contract Price	Extended Contract Price
334FP	6135E Cab Tractor (114 PTO hp)	1	\$ 115,885.00	24.00	\$ 27,812.40	\$ 88,072.60	\$ 88,072.60
Standard Options - Per Unit							
182F	AutoTrac™ Universal/ Greenstar™ Ready	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
183N	JDLink™ Modem (Not Machine Sync Capable)	1	\$ 600.00	24.00	\$ 144.00	\$ 456.00	\$ 456.00
185A	JDLink™ Connectivity	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0202	United States	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0409	English Operator's Manual North America	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
0500	Less Package	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1386	12F/12R PowrReverser™ Transmission - Wet Clutch, EH PTO, 30 km/h	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1950	Less Application	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2050	Cab Standard	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
2130	Air Suspension Seat with Swivel (MSG 95)	1	\$ 1,190.00	24.00	\$ 285.60	\$ 904.40	\$ 904.40
3340	Triple Deluxe SCV with ISO Breakaway Couplers	1	\$ 512.00	24.00	\$ 122.88	\$ 389.12	\$ 389.12
4015	Standard Hitch	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4120	Telescopic Draft Links	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4315	Standard Drawbar	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
4420	Sway Chains	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
5212	460/85R34 In. 8PR R1 Radial	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00





JOHN DEERE



Selling Equipment

Quote Id: 29467175 Customer Name: COLLIER COUNTY PARKS & RECREATION COASTAL
ZONE MGMT

ALL PURCHASE ORDERS MUST BE MADE OUT

TO (VENDOR):

Deere & Company
2000 John Deere Run
Cary, NC 27513
FED ID: 36-2382580
UEID: FNSWEDARMK53

ALL PURCHASE ORDERS MUST BE SENT

TO DELIVERING DEALER:

Everglades Equipment Group
9501 State Route 82
Fort Myers, FL 33905
239-332-5045
info@efe1963.com

6045	MFWD (4 Wheel Drive) Front Axle, electro-hydraulic activation.	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
6210	340/85R24 In. 8PR R1 Radial	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
7700	Shipping Preparation for Truck	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
8910	2-Function Mechanical Independent Control Valve Loader Ready	1	\$ 5,341.00	24.00	\$ 1,281.84	\$ 4,059.16	\$ 4,059.16
Standard Options Total			\$ 7,643.00		\$ 1,834.32	\$ 5,808.68	\$ 5,808.68
Technology Options/Non-Contract/Open Market							
1880	Less Receiver	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
1900	Less Display	1	\$ 0.00	24.00	\$ 0.00	\$ 0.00	\$ 0.00
Technology Options Total			\$ 0.00		\$ 0.00	\$ 0.00	\$ 0.00
Dealer Attachments/Non-Contract/Open Market							
BSJ10216	Fixed Front Fenders (MFWD only)	1	\$ 843.70	24.00	\$ 202.49	\$ 641.21	\$ 641.21
glvunderc oat	NON CONTRACT: Rim Galvanizing & Undercoating Undercarrage	1	\$ 7,900.00	0.00	\$ 0.00	\$ 7,900.00	\$ 7,900.00
Dealer Attachments Total			\$ 8,743.70		\$ 202.49	\$ 8,541.21	\$ 8,541.21
Value Added Services Total			\$ 0.00			\$ 0.00	\$ 0.00
Total Selling Price			\$		\$ 29,849.21	\$	\$
			132,271.70			102,422.49	102,422.49



EXECUTIVE SUMMARY

Recommendation to approve the purchase of a Barber Surf Rake from H. Barber & Sons, Inc., utilizing Cooperative Procurement Piggyback 341 “Refuse Handling Equipment – RH08-20”, using Tourist Development Tax Fund 1105 in the amount of \$70,914.00, and make a finding that this expenditure promotes tourism.

OBJECTIVE: To purchase an additional beach surf rake that will be used to maintain Collier County beaches.

CONSIDERATIONS: Collier County Coastal Zone Management (CZM) uses tractor-towed mechanical surf rakes to pick up minor debris and trash from the County’s beaches to maintain a quality experience for beach users throughout the year. The harsh saltwater environment in which the surf rakes are used causes corrosion to the equipment, deteriorating various metal parts of the rakes. Unfortunately, beach rakes do not have odometers or hour meters to calculate replacement, but the estimated life expectancy is 72 months as confirm by the County’s Fleet Division.

The purchase of an additional surf rake will allow for a backup rake within CZM’s equipment inventory to be used when mechanical problems arise with one of the two machines that are used daily. CZM received a quote from H. Barber & Sons, Inc., in the amount of \$70,914.00 using Cooperative Procurement “Piggyback 341” program through HGACBuy contract “Refuse Handling Equipment – RH08-20”.

This item is consistent with the Quality of Place Objectives of the County’s Strategic Plan.

GROWTH MANAGEMENT IMPACT: This item is consistent with the Conservation and Coastal Management Element of the Growth Management Plan.

ADVISORY COMMITTEE RECOMMENDATIONS: This item will be presented to the Coastal Advisory Committee (CAC) on November 9, 2023, and the Tourist Development Council (TDC) on November 20, 2023.

LEGAL CONSIDERATIONS: This item is approved as to form and legality and requires majority vote for approval. – CMG

FISCAL IMPACT: Funding in the amount of \$70,914.00, is available within the Tourist Development Tax Beach Renourishment Fund (1105) in the Beach Cleaning project (90533). Source of funding is tourist development tax.

RECOMMENDATION: To approve the purchase of a Barber Surf Rake from H. Barber & Sons, Inc. utilizing Cooperative Procurement Piggyback 341 “Refuse Handling Equipment – RH08-20”, using Tourist Development Tax Fund 1105 in the amount of \$70,914.00, and make a finding that this expenditure promotes tourism.

Prepared By: Andrew Miller, P.E., Coastal Zone Management, Capital Project Planning, Impact Fees, and Program Management Division

PROFORMA INVOICE

PI-5001462
August 21, 2023

BARBER

H. Barber & Sons, Inc.
15 Raytkwich Drive, Naugatuck CT 06770
Tel: (203) 729-9000 Fax: (203) 729-4000
www.hbarber.com

Christopher J. Kelly

Prepared For **Chris Darco**
COLLIER COUNTY

Email: cjk@hbarber.com
Office: 703-435-1100
Mobile: 203-232-5970

Billing Address:	Shipping Address:
COLLIER COUNTY Attn: Accounts Payable 3299 Tamiami Trl E Ste 700 3301 Tamiami Trail East Naples, FL 34112 E-Mail: Christopher.Darco@colliercountyfl.gov	Growth Management Division P&R Coastal Zone Management 2685 S Horeshoe Dr, Suite 103 Naples, FL 34104 E-Mail:

SALESPERSON	FREIGHT TERMS	AVAILABILITY	SHIP VIA	PAYMENT TERMS
Christopher J. Kelly	FCA Naples, FL	60 Days ARO	Barber to arrange trucking	Net 30 days

QUANTITY	ITEM	DESCRIPTION	UNIT PRICE	SELLING PRICE
1.00	600HDGAL	HGAC 600HDS Hot Dip Galvanizing	4,559.00	\$4,559.00
1.00	522AS03A	HGAC 600HDS Hydraulic Moldboard	2,813.00	\$2,813.00
1.00	530AS02	HGAC 600HDS Automatic Finisher Attachme	2,425.00	\$2,425.00
1.00	600HDS	HGAC 600HDS ITEM# RH0820I14	58,200.00	\$58,200.00
1.00	6-LIGHTS	HGAC 600HDS Light Assembly	922.00	\$922.00

SUBTOTAL			\$68,919.00	
TAX			N/A	
Shipping			\$1,995.00	
TOTAL FCA Naples, FL			\$70,914.00	

Warranty: MANUFACTURER'S WARRANTY

Notes:

Offer valid through December 1, 2023

Wire Transfer Instructions:

Beneficiary's Name:	Beneficiary's Bank:
H. Barber & Sons, Inc. 15 Raytkwich Drive Naugatuck, CT 06770 Phone: 203-729-9000 Fax: 203-729-4000	JPMorgan Chase Bank 270 Park Avenue New York, NY 10017 Telegraphic Name: Chase NYC Credit to JPMorgan Chase Account: H. Barber & Sons, Inc. Account # 5601009425 Swift Code: CHASUS33 ABA# 021000021

This Pro Forma Invoice is valid through December 15th, 2023. All prices quoted herein are U.S. Dollars. Prices are exclusive of insurance, taxes, tariffs, and duties levied outside of the U.S.

This quote is provided with the express understanding that the Barber equipment will be used in the State identified by the buyer. Our warranty only extends to the original buyer or the specific customer identified by the buyer. If the unit is moved outside this specified state or outside the United States, without the express written permission of the manufacturer, the warranty is immediately void and Barber will not provide parts for

H. Barber Sons, Inc. 15 Raytkwich Dr. Naugatuck, CT 06770 USA
TEL: 203.729.9000 FAX: 203.729.4000 EMAIL: hbarber@hbarber.com



this unit at any time.



EXECUTIVE SUMMARY

Recommendation to terminate for convenience Construction Agreement 23-8111 with Phillips and Jordan, Inc., as the contractor of the Reach A 2023 “Collier 2023 Emergency Truck Haul and Construction” project, and authorize the Chairman to sign Change Order No. 1 to Agreement No. 18-7432-CZ with APTIM Environmental and Infrastructure, LLC, for the professional engineering services providing re-survey, re-design, bidding assistance, and post-design services for the remaining South Naples emergency berm, and make a finding that this item promotes tourism. (Project No. 50280)

OBJECTIVE: To obtain Board approval to terminate for convenience Construction Agreement No. 23-8111 with Phillips & Jordan, Inc. (“P&J”), for the Reach A “Collier 2023 Emergency Berm Truck Haul and Construction” project for approval of Change Order No. 1 to Agreement No. 18-7432-CZ with APTIM Environmental and Infrastructure, LLC (“APTIM”) for the professional engineering services providing re-survey, re-design, bidding assistance, and post-design services for the remaining South Naples emergency berm.

CONSIDERATIONS: On September 28, 2022, Hurricane Ian and its associated storm surge caused major damage to Collier County beaches, destroying much of the dunes and vegetation at the landward edge of the beach. The loss of the dunes left already damaged beachfront properties vulnerable to flooding from future tropical storms and winter cold fronts.

On December 13, 2022 (Agenda Item 11.D.), the Board certified the existence of a valid public emergency and approved an emergency Work Order in a not-to-exceed amount of \$187,636.25 with APTIM for the design services related to the emergency berm project required to protect upland structures along the County’s beaches.

On January 24, 2023 (Agenda Item 11.B), the Board authorized the expenditure of Tourist Development Tax funds in a not-to-exceed amount \$24,000,000 for the construction of an emergency berm for eligible beaches and authorized the Board to delegate authority to the County Manager to execute contracts for the berm construction, subject to being later ratified by the Board at its next regular meeting.

On February 28, 2023, the Procurement Services Division issued Construction Invitation to Bid No. 23-8111, Collier 2023 Emergency Berm Truck Haul and Construction, which was divided into two beach areas, Reaches "A" and "B". On April 25, 2023, (Agenda Item 11.A), the Board ratified the County Manager's award of the Collier 2023 Emergency Berm Truck Haul and Construction, Reach "A" to P&J in the amount of \$6,723,041.50.

Reach "A" consisted of Park Shore, Naples, and South Naples beaches. Park Shore and Naples beaches have been regularly renourished as part of the County's ongoing beach management program. Since South Naples is not considered a publicly accessible beach as defined by Florida Department of Environmental Protection (FDEP), it was excluded from the County's FDEP renourishment permit. Soon after Hurricane Ian was deemed to be a threat to Florida's coast, Governor Ron DeSantis issued Executive Order Number 22-218, declaring a state of emergency for coastal counties, including Collier County. On September 24, 2022, FDEP issued an Emergency Final Order which allowed for the immediate restoration of dune systems damaged by the storm, including dunes on beaches not within FDEP permit limits. On December 9, 2022, FDEP issued the “Hurricanes Ian and Nicole Recovery Plan”, which included a recommendation for 100% State funding for the restoration of the dunes in South Naples.

The beach in South Naples is private property seaward to the Mean High Water Line (“MHWL”). In order to construct the berm on private property, Temporary Beach Restoration Easements (“TBRE”s) is needed

for each property fronting the beach. Staff began work to acquire the TBREs soon after the issuance of the FDEP's December 9, 2022, Recovery Plan with the intent of having the easements in place by the time construction was to begin in South Naples in late spring 2023. P&J began constructing Reach "A" from Naples Pier to Doctors Pass on April 3, 2023, and then moving to Park Shore on May 3, 2023. After finishing Park Shore, construction moved back to Naples beach, south of Naples Pier on May 22, 2023. By the time P&J were ready to continue southward to finish the project in South Naples on May 26, 2023, only about 30% of the easements had been acquired. Sea Turtle nesting season had also already begun on May 1, 2023, and nests had already been established along South Naples beaches. Staff opted to forego construction in South Naples until the necessary easements had been acquired and sea turtle nesting season ends in November of 2023. P&J was issued a Stop Work Notice on June 6, 2023, with the intent to restart their contract in the fall / winter of 2023. Staff also issued a Stop Work Notice to APTIM on July 13, 2023, to allow them to return in the fall to provide post-design services for South Naples.

On August 30, 2023, Hurricane Idalia passed offshore of Collier beaches, providing a test for the newly constructed emergency berm. Staff visited Naples beach during the hours of the storm and in particular at a seasonal high "King" tide at noon the same day. The berm performed very well along all of Naples beach, but in South Naples the lack of the berm allowed a storm surge of between 2 to 4 feet to encroach into landward properties. A more significant storm would likely cause more extensive flooding if the berm were not completed there. Thus, the same emergency conditions that existed when the Board certified the existence of a valid public emergency in December 2022 still exists today.

As fall of 2023 approached, conversations with P&J began in order to create a Change Order to allow for the additional work related to re-mobilization of crews and equipment to South Naples. Easement acquisitions proceeded during the summer, but by October 2023, a dozen or more were still outstanding. On October 12, 2023, P&J indicated they would not be able to complete the remainder of the work because of the delay in the progress in the work resulting from the lack of easements. Because the Section 10.4 of the General Terms & Conditions of the Construction Agreement allows the contractor to terminate for convenience after work has been stopped for 180 days, and Staff still has concerns about having all easements in-hand by that time, Staff is recommending that the County terminate the Agreement for convenience to allow sufficient time for re-bidding the project for construction prior to the beginning of sea turtle nesting season on May 1, 2024.

In order to re-bid the construction of the South Naples berm, APTIM's services will be needed to provide bidding assistance to Staff. APTIM will also need to re-survey the beach and make any necessary modifications to its original design due to changes in beach topography which have occurred since May 2023. Change Order No. 1 will allow for additional funding in the amount of \$54,136.50, and an additional 180 days to provide bidding assistance, the revised survey, design, post-design services, and project certification necessary to close out the project.

This item is consistent with the Infrastructure and Asset Management element of Collier County's Strategic Plan by preparing for the impacts of natural disasters on our critical infrastructure and natural resources.

GROWTH MANAGEMENT IMPACT: This item is consistent with the Conservation and Coastal Management Element of the County's Growth Management Plan.

ADVISORY COMMITTEE RECOMMENDATIONS: This item will be presented to the Coastal Advisory Committee (CAC) on November 9, 2023, and the Tourist Development Council (TDC) on November 20, 2023.

LEGAL CONSIDERATIONS: This item is approved as to form and legality and requires majority vote for Board approval. —SRT

FISCAL IMPACT: Approval of this change order results in a net increase to work order of \$54,136.50. Funding is available in TDC Beach Renourishment Fund (1105) and FEMA Disaster Fund (1813) within Hurricane Ian Project (50280), with potential for reimbursement from FEMA. The County will seek FEMA reimbursement of 75% of the costs associated with the construction of the emergency berm plus an additional 12.5% share from the State of Florida Emergency Management Services.

RECOMMENDATION: To terminate for convenience Construction Agreement No. 23-8111 with Phillips and Jordan, Inc., as the contractor of the Reach A “2023 Collier 2023 Emergency Berm Truck Haul and Construction” project, and authorize the Chairman to sign Change Order No. 1 to Agreement No. 18-7432-CZ with APTIM Environmental and Infrastructure, LLC, for the professional engineering services providing re-survey, re-design, bidding assistance, and post-design services for the remaining South Naples emergency berm, and make a finding that this item promotes tourism. (Project No. 50280)

Prepared By: Andrew Miller, P.E., Coastal Zone Management, Capital Project Planning, Impact Fees, and Program Management Division



Procurement Services Change Order Form

Contract Modification Work Order Modification

Contract #: 18-7432-CZ Change #: 1 Purchase Order #: 4500222753 Project #: 50280.1

Contractor/Firm Name: APTIM Environmental & Infrastructure, LLC. Contract/Project: Hurricane Ian Post-Storm Engineering Services for FEMA Emergency Berm Project

Project Manager Name: Andrew Miller, P.E. Division Name: Capital Project Planning, Impact Fees, & Program Management

Table with 4 columns: Description, Original Amount, Change Amount, and Percentage Change. Rows include Original Contract/Work Order Amount, Current BCC Approved Amount, Current Contract/Work Order Amount, Dollar Amount of this Change, Revised Contract/Work Order Total, and Cumulative Changes.

Completion Date, Description of the Task(s) Change, and Rationale for the Change

Notice to Proceed Date: 12/28/22 Original Completion Date: 7/26/23 Last Approved Date: 7/26/23 Revised Date: *TBD

of Days Added: 180 Select Tasks: Add new task(s) Delete task(s) Change task(s) Other

Provide a response to the following: 1.) detailed and specific explanation/rationale of the requested change(s) to the task(s) and / or the additional days added (if requested); 2.) why this change was not included in the original contract; and, 3.) describe the impact if this change is not processed.

- This Work Order is on a Stop Notice with 13 days remaining.
1. This change is to increase the funding and time necessary to provide bidding assistance, re-mobilize, re-survey, re-design, monitor construction, and certify the construction of the emergency berm in South Naples (R-79 – R89).
2. This change was not included in the original scope because the intent was to construct the entire berm with the anticipation of being able to acquire the Temporary Beach Reconstruction Easements (TBREs) necessary within the time limitations of the project.
3. If the change is not processed, the consultant will not be available to provide bidding assistance, re-mobilize, re-survey, re-design, monitor construction and certify the construction of the emergency berm in South Naples.

Prepared by: (Andrew Miller, P.E. – Manager – Capital Project Planning, Impact Fees, and Program Management) Date:

Acceptance of this Change Order shall constitute a modification to contract / work order identified above and will be subject to all the same terms and conditions as contained in the contract / work order indicated above, as fully as if the same were stated in this acceptance.

Accepted by: (Nicole Sharp, P.E. – Coastal Market Lead – APTIM Environmental & Infrastructure, LLC.) Date:

Approved by: (Beth Johnssen, Division Director) Date:

Approved by: (Trinity Scott, Department Head) Date:

Approved by: (Procurement Professional) Date:

Table with 3 columns: Admin, BCC Rpt, BCC ES. Header: PROCUREMENT USE ONLY



APTIM
6401 Congress Avenue, Suite 140
Boca Raton, FL 33487
Tel: +1 561 391 8102
www.aptim.com

October 24, 2023

Andy Miller
Collier County Coastal Zone Management
2685 S. Horseshoe Drive
Naples, FL 34104

**Re: FEMA Emergency Berm Project Change Order Request: South Naples R-83.5 to R-89
Contract No. 18-7432-CZ**

Dear Andy:

This letter is in response to the continuation of work needed for the FEMA Emergency Berm Project between Collier County (County) and Aptim Environmental & Infrastructure, LLC (APTIM). The work will include engineering and construction phase services to finalize the Emergency Berm Project in South Naples from R-83.5 to R-89. This assistance will consist of modifying the design, bidding assistance, construction monitoring, and consultation with pertinent agencies in support of the South Naples berm construction. This includes weekly visits to the County by the APTIM team during construction.

Included as Exhibits are; the Scope of Work (Exhibit A), Estimated Fee Proposal (Exhibit B), and the Rates Schedule (Exhibit C). APTIM proposes to provide these services on a lump sum basis not-to-exceed \$54,136.50 under the terms and conditions of the existing Contract No. 18-7432-CZ dated March 10, 2020, and as amended May 7, 2020. An additional 180 days are requested to be added onto the work order due to the inclusion of the additional reach and to allow sufficient time for the remobilization of the project, construction oversight, and post-construction reporting.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nicole S. Sharp".

Nicole S. Sharp, P.E.
Coastal Market Lead
Aptim Environmental & Infrastructure, LLC

cc: Stephen Keehn, P.E., APTIM
James Austin, APTIM



Exhibit A
Scope of Work

EXHIBIT A
FEMA EMERGENCY BERM PROJECT CHANGE ORDER No. 1
SOUTH NAPLES R-83.5 TO R-89
CONTRACT NO. 18-7432-CZ
COLLIER COUNTY, FL
OCTOBER 24, 2023

Introduction

This is a scope of work for Aptim Environmental & Infrastructure, LLC (APTIM) to provide the engineering services to complete the South Naples (R-83.5 to R-89) segment as additional work then what was originally proposed in the original scope of work for the FEMA Emergency Berm Project. Due to environmental restrictions, a separate mobilization and modified design required for this reach for inclusion into the project. The work will require an extension of the end date for an additional 180 days in order to allow for the design and construction of the additional reach and completion after the end of sea turtle nesting season on November 1, 2023, for 45,000 tons of truck haul sand.

1. Design, Construction, Plans & Specifications for South Naples (Port Royal)

APTIM engineers will use the pre-construction surveys to update and modify the design to address changes in the profile. A second design will be created to address placing sand at a reduced length if obstacles and a narrow beach width prevents a full-length implementation. The task will include an inspection of the reach to identify obstacles or lack of clear path for the construction equipment and sand placement. This will include developing methods to address the short piles found along the construction alignment.

The goal of the design will be to place material so that the project area will be able to absorb a 5-year level storm based on FEMA's procedures. The design will be FEMA (protective) berm based on post recent post-storm surveys and FEMA's preliminary review of the proposed project size. After review of the preliminary volume estimates, an analysis will be conducted to optimize placement areas and volumes. APTIM will finalize the quantities and fill areas based on consultation with Collier County, FEMA and permitting agencies. APTIM will support the County with up to two (2) coordination meetings related to the project with the County and local stakeholders.

Once the target volumes and placement areas have been approved by the County, APTIM will conduct engineering design work to prepare the construction footprint and typical cross sections. APTIM's GIS/CAD professionals will work directly with APTIM engineers to develop simplified construction plans including plan views and typical cross-sections of project areas, beach access, equipment storage areas, environmental protection areas and other information required for execution of this project.

The construction plans and volumes for contracting will be based on the most recent survey. Technical specifications developed for the project will integrate the QA/QC plans, environmental standards, and permit conditions into the work.

3. Pre-Construction and Notice to Proceed

Once the construction plans and technical specifications are completed, APTIM will provide the

County with a document package containing construction plans, technical specifications, project permits, and probable costs.

APTIM will assist the County in their lead of the special award process. APTIM will participate in the award meeting via phone conference and assist the County in answering technical questions as needed during the award process. APTIM will assist the County in reviewing the contractor's documents and provide a recommendation to the County based on a review of the submitted contract documents to the extend practical.

4. Construction Services

As the Engineer of Record, APTIM will conduct pre-, during- and post-construction tasks necessary for certification of the project. An APTIM engineer will attend the pre-construction conference and update the construction profiles using the latest pre-placement surveys. During construction, APTIM will support the County's inspection efforts and perform weekly site visits to inspect the work at both sites and attend during construction meetings. It is assumed that there will be up to 3 weeks of active hauling during construction. APTIM will prepare a QA/QC check list, delineating the County, contractor, inspector and APTIM duties as a guideline for during construction coordination. APTIM will perform a final inspection once construction of the South Naples berm is complete.

APTIM will review the contractor's pay applications, reconcile and/or review the pay volumes/tonnage based on mine records, weights tickets collected at the beach and available physical surveys. The weight tickets will govern.

APTIM will provide a construction and as-built summary based on the contractor's weight tickets, daily reports, and pre- and post-construction surveys. The as-built report will serve as the documentation to FEMA and FEDP on the sand volume placed. The report will be prepared as a supplement to the original report for construction ending June 2023.

5. Pre- and Post Construction Surveys (Dry Beach Only)

APTIM surveyors will perform pre- and post-construction surveys for 13 profiles lines between R-83.5 and R-89 from the baseline (dunes) to the Mean High Water line.

Summary

This work will be performed on a lump sum basis with a cost not to exceed \$38,015.50 as outlined in the attached fee spreadsheet. The overall time of the contract to complete surveys, certifications and Engineer of Record sign off will be within 390 days of receipt of the Start Work Notice.

Assumptions

- No hardbottom edge survey will be required.
- County inspectors will collect weight tickets, observe delivered sand quality and beach construction, and reconcile sand mine records with weight tickets collected at the beach.
- The County or a third party will perform and prepare reports on the following tasks if needed:
 - 2023 Physical Monitoring

- Marine Turtle Monitoring and Related FWC Coordination
- Shorebird Monitoring
- Turbidity Monitoring (if in water construction work is required)



Exhibit B
Estimated Fee Proposal

EXHIBIT B
ESTIMATED FEE PROPOSAL FOR
SUPPLEMENTAL SCOPE OF WORK - FEMA EMERGENCY BERM PROJECT
COLLIER COUNTY, Contract No. 18-7432-CZ
REQUEST FOR CHANGE ORDER #1

October 24, 2023

Task Item	Cost	Senior Project Manager (Hours)	Engineer (Hours)	Surveyor and Mapper (Hours)	Senior Technician (Hours)	Technician (Hours)	CADD Technician (Hours)	Clerical/ Administrative (Hours)	Mileage Round Trip	Tolls (\$)	Meals (Day)	Enclosed 18" Trailer (Day)	All Terrain Vehicle (Day)	RTK GPS (Day)
1 BEACH DESIGN, CONSTRUCTION PLANS & SPECIFICATIONS	\$18,112.00	24	60	2	6		40	4						
3 PRE-CONSTRUCTION AND NOTICE TO PROCEED	\$7,110.00	16	22				8	2						
4 CONSTRUCTION SERVICES	\$18,942.00	40	81					4						
5 PRE-CON AND POST-CON BEACH SURVEYS (DRY BEACH ONLY)	\$7,779.00	1	1	6	36	36								
6 REIMBURSABLES	\$2,193.50								1100	5	8	2	2	2
	Total Hours =	81	164	8	42	36	48	10	1100	5	8	2	2	2
	Rate =	\$203	\$130	\$125	\$103	\$83	\$107	\$73	\$0.445	\$12	\$36	\$78	\$105	\$495
	Cost =	\$16,443.00	\$21,320.00	\$1,000.00	\$4,326.00	\$2,988.00	\$5,136.00	\$730.00	\$489.50	\$60.00	\$288.00	\$156.00	\$210.00	\$990.00
TOTAL	\$54,136.50													



**Exhibit C
Rate Schedule**

* * * * *

SCHEDULE B-ATTACHMENT 1
RATE SCHEDULE

Title	Hourly Rate
Principal	\$231
Senior Project Manager	\$203
Project Manager	\$160
Senior Engineer	\$177
Engineer	\$130
Senior Inspector	\$126
Inspector	\$93
Senior Planner	\$150
Planner	\$120
Senior Designer	\$140
Designer	\$105
Environmental Specialist	\$120
Senior Environmental Specialist	\$167
Scientist/Geologist	\$115
Senior Scientist/Geologist	\$153
Marine Biologist/Hydrogeologist	\$120
Senior Marine Biologist/Hydrogeologist	\$145
Senior GIS Specialist	\$155
GIS Specialist	\$115
Clerical/Administrative	\$73
Senior Technician	\$103
Technician	\$83
Surveyor and Mapper	\$125
CADD Technician	\$107
Survey Crew - 2 man	\$145
Survey Crew - 3 man	\$180
Survey Crew - 4 man	\$215
Senior Architect	\$160
Architect	\$125

The above hourly rates are applicable to Time and Materials task(s) only. The above list may not be all inclusive. Hourly rates for additional categories required to provide particular project services shall be mutually agreed upon by the County and firm, in writing, on a project by project basis, as needed, and will be set forth in the Work Order agreed upon by the parties.

Grant Funded: The above rates are for purposes of providing estimate(s), as required by the grantor agency.

* * * * *

