



PROFESSIONAL SERVICE AGREEMENT NO.5959

Survey & Assessment of Beach Erosion

THIS **Survey & Assessment of Beach Erosion (Berm and Dune) Services Agreement** ("Agreement") is entered into by and between the City of Corpus Christi, a Texas home-rule municipal corporation ("City") and Texas A&M University—Corpus Christi ("Contractor"), effective upon execution by the City Manager or the City Manager's designee ("City Manager").

WHEREAS, Contractor has agreed to provide professional services for a survey and assessment of critical beach erosion (berm and dune) in order to preserve the footprint of the elevated parks and water access for the community.

NOW, THEREFORE, City and Contractor agree as follows:

- 1. Scope.** Contractor shall provide Survey & Assessment of Beach Erosion Services ("Services") in accordance with the attached Scope of Work, as shown in Attachment A, the content of which is incorporated by reference into this Agreement as if fully set out here in its entirety.
- 2. Term.** This term of this Agreement is five months. The parties may mutually extend the term of performance of this Agreement, as may be needed, provided, the parties do so by written amendment executed by an authorized representative of each party.
- 3. Compensation and Payment.** This Agreement is for an amount not to exceed \$58,124.00, subject to approved extensions and changes. Payment will be made for Services completed and accepted by the City within 30 days of receipt of an acceptable invoice. All pricing must be in accordance with Attachment A. Invoices must be mailed to the following address, with a copy provided to the Contract Administrator:

City of Corpus Christi
Attn: Accounts Payable
P. O. Box 9277
Corpus Christi, TX 78469-9277

- 4. Contract Administrator.** The Contract Administrator designated by the City is responsible for approval of all phases of performance and operations under this Agreement, including deductions for non-performance and authorizations for payment. The City's Contract Administrator for this Agreement is as follows:

Liza Nino-Elizalde
Parks & Recreation Department

361-826-3026
LizaN@cctexas.com

5. **Insurance; Bonds.** Reserved for later use, if applicable pursuant to execution of an amendment requiring the same.
6. **Standard of Care.** Contractor warrants that all Services shall be performed in accordance with the standard of care used by similarly situated contractors performing similar services under the same professional license, if a license is applicable.
7. **Non-Appropriation.** The continuation of this Agreement after the close of any fiscal year of the City, which fiscal year ends on September 30th annually, is subject to appropriations and budget approval specifically covering this Agreement as an expenditure in said budget, and it is within the sole discretion of the City's City Council to determine whether or not to fund this Agreement. The City does not represent that this budget item will be adopted, as said determination is within the City Council's sole discretion when adopting each budget.
8. **Independent Contractor.**
 - (A) In performing this Agreement, both the City and Contractor shall act in an individual capacity and not as agents, representatives, employees, employers, partners, joint venturers, or associates of one another. Contractor shall perform all professional services as an independent contractor and shall furnish such Services in his own manner and method, and under no circumstance or condition shall an employee, agent, or representative of either party be considered or construed to be an employee, agent, or representative of the other party.
 - (B) As an independent contractor, no workers' compensation insurance will be obtained nor provided by City covering the Contractor and employees of the Contractor. The Contractor shall comply with any and all workers' compensation laws pertaining to the Contractor and employees of the Contractor.
9. **Subcontractors.** The Contractor may not use subcontractors in connection with the work to be performed under this Agreement.
10. **Amendments.** This Agreement may be amended or modified only in writing and must be executed by an authorized representative of each party.
11. **Waiver.** No waiver by either party of any breach of any term or condition of this Agreement waives any subsequent breach of the same.
12. **Taxes.** The Contractor covenants to pay payroll taxes, Medicare taxes, FICA taxes, unemployment taxes and all other applicable taxes. Upon request, the City Manager shall be provided proof of payment of these taxes within 15 days of such written request.

- 13. Notice.** Any notice required under this Agreement must be given by hand delivery, fax, or certified mail, postage prepaid with return receipt requested, and is deemed received on the day hand-delivered or faxed (with proof of transmission) or on the third day after postmark if sent by certified mail. Notice must be sent as follows:

IF TO CITY:

City of Corpus Christi
Parks & Recreation Department
Attn: Liza Nino- Elizalde, Contracts/Funds Administrator
400 Mann St., 2nd Floor, Suite 200
Corpus Christi, TX 78401

IF TO CONTRACTOR:

Texas A&M University - Corpus Christi
Attn: Deidre D. Williams, Coastal Research Scientist
6300 Ocean Drive, Unit 5799
Corpus Christi, TX 78412-5799

- 14. Indemnification.** Reserved. Contractor is a Texas public university.

15. Termination.

(A) The City Manager may terminate this Agreement for Contractor's failure to perform the work specified in this Agreement or to keep any required insurance policies in force during the entire term of this Agreement. The Contract Administrator must give the Contractor written notice of the breach and set out a reasonable opportunity to cure. If the Contractor has not cured within the cure period, the City Manager may terminate this Agreement immediately thereafter.

(B) Alternatively, the City Manager may terminate this Agreement for convenience upon 30 days advance written notice to the Contractor. The City Manager may also terminate this Agreement upon 24 hours written notice to the Contractor for failure to pay or provide proof of payment of taxes as set out in this Agreement.

- 16. Assignment.** No assignment of this Agreement by the Contractor, or of any right or interest contained herein, is effective unless the City Manager first gives written consent to such assignment. The performance of this Agreement by the Contractor is of the essence of this Agreement, and the City Manager's right to withhold consent to such assignment is within the sole discretion of the City Manager on any ground whatsoever.

- 17. Severability.** Each provision of this Agreement is considered to be severable and, if, for any reason, any provision or part of this Agreement is determined to be invalid and contrary to applicable law, such invalidity shall not impair the operation of nor affect those portions of this Agreement that are valid, but this

Agreement shall be construed and enforced in all respects as if the invalid or unenforceable provision or part had been omitted.

18. Order of Precedence. In the event of any conflicts or inconsistencies between this Agreement, its attachments, and exhibits, such conflicts and inconsistencies will be resolved by reference to the documents in the following order of priority:

- A. this Agreement (excluding all attachments and exhibits);
- B. its attachments; then,
- C. its exhibits, if any.

19. Certificate of Interested Parties. Contractor agrees to comply with Texas Government Code Section 2252.908, as it may be amended, and to complete Form 1295 "Certificate of Interested Parties" as part of this Agreement if required by said statute.

20. Governing Law. This Agreement is subject to all federal, State, and local laws, rules, and regulations. The applicable law for any legal disputes arising out of this Agreement is the law of the State of Texas, and such forum and venue for such disputes is the appropriate district or county court in and for Nueces County, Texas.

21. Entire Agreement. This Agreement constitutes the entire agreement between the parties concerning the subject matter of this Agreement and supersedes all prior negotiations, arrangements, agreements, and understandings, either oral or written, between the parties.

(SIGNATURE PAGE FOLLOWS)

ATTACHMENT A: SCOPE OF WORK & FEE

Packery Channel Monitoring Program (PCMP) 2024 Emergency Post-Alberto Survey and Assessment of Beach (Berm and dune) Erosion

**Statement of Work:
20 June 2024**

**Submitted to:
City of Corpus Christi
Parks and Recreation Department
Attn. Darren Gurley**

**Submitted by:
Deidre D. Williams
Deidre.Williams@tamucc.edu
The Conrad Blucher Institute for Surveying and Science
Texas A&M University-Corpus Christi**

Introduction

As Tropical Storm Alberto developed and moved onshore in Mexico (18-20 June 2024), two high pressure systems concentrated onshore flow resulting in strong winds, storm surge and inundation along the Corpus Christi Gulf Beaches causing significant erosion. This proposal describes a survey and assessment to determine the degree of erosion of the dunes and berm. The information provided will support the City of Corpus Christi staff in management of the beach and dune system. The survey and assessment along with supporting data-based informed decision making by City Staff. In addition to documenting the erosion during Tropical Storm Alberto, the survey and assessment also supports the City of Corpus Christi in meeting the following obligations:

- 1. Post-Hurricane Assessment:** Documentation for application to FEMA reimbursement process
- 2. Beach Nourishment Planning:** NPI Seawall and future beaches in need, particularly following storm impact
- 3. Management of Pedestrian Safe Beach:** Including bollard placement and relocation along North Padre Island (NPI) Seawall. (City Ordinance Ord. 028494 2010 and adherence to TGLO Beach Management Plan Regulations (Open Beaches Act) and CEPRA guidelines/agreements)
- 4. Adherence to TGLO guidelines:** Related to nourishment of the beach fronting the NPI Seawall Coastal Erosion Planning and Response Act (CEPRA) *(CEPRA Project 1113). Plan for beach restoration must be submitted when beach width \leq 150 ft.
- 5. Management of Sand Redistribution:** Redistribution of sand from the beach fillets adjacent to the jetties to the eroding beach fronting the NPI Seawall pending amendment of the City of Corpus Christi Beach Maintenance Permit (USACE permit SWG-2006-00647-*in progress*)
- 6. Long-term Planning:** supports long-term sustainable management of to maintain the resiliency of coastal resources. This includes dialogs with USACE on securing additional cyclic sand resources and coordination with Texas General Land Office, and local committees .

Primary Objective

This proposal outlines the post-storm (Tropical Storm Alberto) assessment of the beaches along North Padre Island and Mustang Island, specifically 1) the beach fronting the NPI Seawall and 2) the beaches adjacent to Packery Channel on both Mustang and North Padre Island that are in City of Corpus Christi jurisdictional boundaries and Packery Channel Project extents. These beach segments are actively maintained and managed by the City of Corpus Christi and are considered high use by pedestrians and vehicles. The assessment includes beach profile surveys, shoreline position surveys and trend analysis that compares the proposed 2024 data to historic data. The proposed survey does not include the beach segment north of Access Rd. 2.

Although this survey will document the damaged beach rather than the post-nourishment beach, the survey will establish a new functional baseline that future surveys will be compared to following the recent nourishment that restored the Design Width (200 ft) along the NPI Seawall. There is not complete survey of the post-BUDM placement completed during Jan 2024. Therefore, the assessment will be limited by that the available limited data set from the survey conducted by the BUDM contractor following the Beneficial Use Dredge Material (BUDM) placement. The post-placement survey only extended offshore to wade depth (< 5 ft depth) which did not document the full extent of where sediment is transferred into the nearshore by waves and currents. The post-storm survey will extend across the nearshore into deeper water (-18 to -30 ft (NAVD88)) to identify where eroding sand may be stored or transported out of the project area. Sediment transport in these deeper waters is variable and is influenced by the nearby channel and jetties. Assessment is critical for informed beach nourishment planning, beach maintenance operations, as well as forward planning for long term resilience of Corpus Christi beaches that are so important to the community and tourism.

This survey and assessment also directly supports 1) City of CC Beach Operations in the management of the pedestrian safe beach, when warranted, fronting the North Padre Island (NPI) Seawall and 2) the planned alongshore sand redistribution that will function as interim beach nourishment material between dredge events, once permitted.

Background

The beaches adjacent to Packery Channel have been altered by the presence of the channel since construction that was completed during 2006 and sediment transport has also been altered along the NPI Seawall have been altered by the construction of the seawall during the late 1960's. The beach adjacent to the channel jetties has over doubled in width, while the beach along the over 50% of the NPI Seawall continues to erode, only interrupted by periodic placement of BUDM during Packery Channel dredge events. BUDM removed during maintenance dredge of Packery Channel is the sole dedicated source of sand for renourishment of the beach fronting the NPI Seawall to date.

BUDM Placement History and 2024 Status

The beach fronting the NPI Seawall has benefited from three BUDM placements 1) during the construction and dredging of Packery Channel (2006) and 2) the first maintenance channel dredge and BUDM placement that was conducted over two winters during 2012/2013, and 3) the second maintenance dredge of Packery Channel (2024). There have been two dredge/nourishment

projects conducted at Packery Channel since construction was completed in 2006. The first maintenance dredge was completed over two winter seasons during 2012 and 2013. The second maintenance dredge was completed over 10 years later, between Oct 2023 and Jan 2024. The dredge/nourishment planning/implementation process was interrupted by a series of significant issues and delays including, 1) expired USACE channel maintenance dredge/nourishment permit, 2) 3-year process to obtain new USACE channel maintenance dredge/nourishment permit, 3) structural damage by Hurricane Harvey, and 4) subsequent negotiation of Harvey damage repairs with the USACE and FEMA (ongoing according to City Staff). During these delays the beach continued to erode, resulting in a decrease in the beach width as well as functional area for shared recreational use and drive lanes. Prior to the 2024 completion of the BUDMP placement, the narrow beach along the seawall represented ongoing safety concerns for the shared use by both pedestrians and vehicles, particularly fronting the Windward Parking Lot public facilities.

As the beach begins to erode following placement, the City of Corpus Christi is obligated to monitor the change in the width of the beach fronting the NPI Seawall to determine when the width is at or less than 150 ft or less. At that point City of Corpus Christi staff will placement bollards to limit vehicle access to provide a pedestrian safe beach. In addition, the City of Corpus Christi has an obligation to the TGLO to initiate plans to nourish the beach and restore the beach once a beach segment is less than 150 ft, and to monitor the beach while bollards restrict vehicular access (TGLO 2014). The goals are to maintain the beach between the minimum of 150 ft (Action Width) and the optimal 200 ft design width. As of Feb 2024, 100 % of the beach fronting the NPI Seawall was at or in excess of the Design Beach Width (200 ft).

Post-Alberto Emergency Analysis and Assessment of Beach Erosion Adjacent to Packery Channel (Mustang Island and North Padre Island)

Task 1. Emergency Beach Survey and Assessment

A. Shoreline Position Survey

Frequency: (1 Survey) ASAP following forecasted storm development and dissipation of Disturbance #2 ([Atlantic 2-Day Graphical Tropical Weather Outlook \(noaa.gov\)](https://www.noaa.gov) accessed 20 Jun 2024) and other storms that may develop during the contract process.

Extent: Mustang Island/North Padre Island (Fish Pass to 0.5 mile south of Bob Hall Pier)

Purpose/Application:

- 1) Identify and Document storm damage impacting berm width during Tropical Storm Alberto
- 2) Calculate rate of shoreline recession during storm event.
- 3) Identify storm driven change in beach width that triggers nourishment and management action and planning by City of CC Beach Operations staff.
- 4) Identify and document the limits of where the beach is < 150 ft wide to trigger and guide bollard relocation along NPI Seawall (Pedestrian Safe Beach).
- 5) Document and define areas of focused erosion between profile transects to identify problem Areas otherwise missed.
- 6) Document/define lateral limits of the fillets where the berm is \geq 250 ft wide on the north and south side of the jetties in Sediment Removal Areas (SRAs). Supports sand redistribution defined as removal and placement along the NPI Seawall as per USACE

permit (pending).

- 7) Document and define hot spots of erosion requiring planning for restoration
- 8) Supports short and long-term beach management planning and ongoing maintenance as per the Joint City/Nueces County Erosion Response Plan (2012) and City of Corpus Christi Adaptive Beach and Dune Maintenance Plan 2015)

B. Beach Profile Survey

Frequency: (1 Survey) ASAP following forecasted storm development and dissipation of Disturbance #2 ([Atlantic 2-Day Graphical Tropical Weather Outlook \(noaa.gov\)](#) accessed 20 Jun 2024) and other storms that may develop during the contract process

Extent (Study Area): Adjacent beaches along Mustang Island and North Padre Island from north of Fish Pass to approximately 0.5 mile south of Bob Hall pier along previously occupied transects.

Purpose/Application:

- 1) Identify areas of erosion and deposition following Tropical Storm Alberto and potentially storm identified as Disturbance #2 (beach maintenance and management planning).
- 2) Calculate rate of erosion and volume loss (limited by lack of complete post-BUDM placement survey data).
- 3) Calculate sand volume estimated to restore beach elevation and design width (200 ft) (as needed).
- 4) Can be applied by City of Corpus Christ staff for post-storm documentation for FEMA reimbursement process or for alternate funding resources TBD (as needed)
- 5) Data and assessment supports City Beach Operations in beach management and planning.
- 6) Can be applied by City of Corpus Christi staff to long-term sand management strategies and beach nourishment planning over the post-storm recovery period.

Supports: City of Corpus Christi in meeting obligations described in:

City Ordinance (Ord. 028494 § 10-772010), Environmental Impact Statement (EIS), DOA Cooperative Agreement, TGLO (CEPRA), Joint City/Nueces County Erosion Response Plan (2012), City of Corpus Christi Beach and Dune Management Plan

Performance Period and Schedule

The post-storm survey and assessment will be conducted once storm conditions stabilize and water levels drop to allow full survey access. The survey may be differed until Disturbance #2 has dissipated in order to document additional damage that may occur during that forecasted storm.

Deliverables:

- xyz data and shapefiles (ESRI .shp) files
- Summary report and email briefings

**Budget Next Page
Estimated Budget**

Table 1. Estimated Budget 2024 (Jun) to 2024 (Nov)	
Tasks	Estimated Cost
Task 1. Full Study Area Survey and Assessment (Beach Management/Maintenance)	
a. Shoreline Position Survey (1)	7500
b. Beach Profile Survey and (1)	21,500
Analysis:	14,220
IDC:	14,904
Subtotal Task 1	58,124
Total Task 1:	58,124

References

DOA 2003. Project Cooperation Agreement for Construction of the North Padre Island Storm Damage Reduction and Environmental Restoration Project, Department of the Army and City of Corpus Christi, 26 pp. (Attached)

Environmental Impact Statement (EIS) 2003. North Padre Island Storm Damage Reduction and Environmental Restoration Project, Nueces County Texas, Final Environmental Impact Statement, 313 pp and Appendices.

City of Corpus Christi 2010. Ord. 028494 2010.
https://library.municode.com/tx/corpus_christi/codes/code_of_ordinances?nodeId=PTIII_THCOOR_CH10BEMACO_ARTVIITR_S10-81POBECL

City of Corpus Christi, 2015. City of Corpus Christi Beach Adaptive Maintenance Plan 18 pp.

USACE 2006. SWG-2006-00647, Attachment D. Sand Management Plan, 14 pp. (Attached)

City of Corpus Christi and Nueces County, 2012. A Joint Erosion Response Plan for Nueces County and the City of Corpus Christi, partial funding NOAA and TGLO, 44 pp.
<https://www.nuecesco.com/home/showpublisheddocument/3416/636791948703500000>