

**Nueces County Beach and Coastal Resource Monitoring Program  
Emergency Post-Storm (Hurricanes Hanna and Laura)  
Survey, Analysis, and Assessment**

**EXHIBIT “A”  
SCOPE OF WORK**

This Scope of Work sets out the emergency post-storm assessment tasks that will be conducted to 1) document damage to the beach and dune complex fronting the Gulf of Mexico and 2) establish a baseline data set that will be applied during future surveys to document both natural recovery and managed recovery measures and 3) support ongoing coastal resiliency project development at select locations.

The study area, set out on “Map” herein attached and incorporated in its entirety, is primarily focused along the beach fronting the Gulf of Mexico along Mustang Island and North Padre Island from the south jetty at Aransas Pass up to and including the Nueces County jurisdictional segment along Kleberg County ending at MM 301.

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*The 2020 NCCRMP Post-Hurricanes Hanna and Laura plan consists of the following tasks:*

**Task 1. Shoreline Surveys/Analysis:**

- MHT and Vegetation Line (High accuracy wade survey)
- MHW and MTL (High accuracy wade survey)
- RTK GPS beach survey that covers entire dry beach at time of survey

**Deliverables:**

- Survey data: xyz Ascii data set for MHT, LOV, MHW and MTL
- Mapping files: ESRI shp files
- Briefing: includes calculation of 2020 revised dune protection set-back line
- Briefing and Descriptive Graphics: describes baseline data and change over time where historic data is identified.

**Task 2. Beach Profile Surveys/Analysis (dry and submerged beach/nearshore)**

- Nueces County Annual Monitoring and Control (Port A to Kleberg 23 transects)
- Historically Occupied Nueces County for Permit Application (4 locations, 16 transects)
- Nueces County IB Magee (14 transects)
- Historically Occupied Profiles (formerly City) 18 transects
- Historically Occupied High Density Profiles NPI Seawall 13 transects

**Deliverable:**

- Survey data: xyz Ascii data set
- Mapping files: ESRI shp files

- Briefing and Descriptive Graphics

### **Task 3. Packery Channel County Park:**

- Conduct shoreline position survey (MHHW) to determine rate of recession over time
- Conduct across-channel (bank to bank) survey along park boundary (topographic wide and single beam sonar) to determine bank position and historic rate of change
- Support ongoing coastal resiliency project development by Nueces County

#### **Deliverables:**

- Survey data: xyz Ascii data set
- Mapping files: ESRI shp files
- Briefing and Descriptive Graphics

### **Task 4. Online Data Visualization and Archive and Final Guidance Document**

- Upload data for public online visualization on existing Coastal Habitat Restoration GIS (CHRGIS) website (CBI)  
<https://sandy.tamucc.edu/chrgis/maps/>

#### **Deliverables:**

- Online access to viewing the data and maps <https://sandy.tamucc.edu/chrgis/maps/>
- Data Archive in secure TAMUCC facility

### **Task 5\*. Event Survey and Analysis**

- Additional areas of concern identified during post-storm Hanna/Laura surveys/analysis and reconnaissance and authorized by Nueces County staff

#### **Deliverables:**

Dependent on type of study identified and authorized by Nueces County and may include the following based on Task 1-3 deliverables:

- Survey data: xyz Ascii data set
- Mapping files: ESRI shp files
- Briefing and Descriptive Graphics

\*Task 5 will commence only upon an identified need for additional survey work based on work performed under Tasks 1-4, and subject to an executed Work Authorization.

**Note that the following capabilities are not included in the budget but are available and recommended and may be added at the discretion of Nueces County at a later date.**

#### **Unmanned Aerial Survey UAS (subaerial only)**

- Imagery and topographic data (Dune and Dry Beach)
- Park Infrastructure

**Mobile Lidar (subaerial only)**

- Imagery and topographic data

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**EXHIBIT “B”**

<b>Nueces County Beach and Coastal Resource Monitoring Program</b>	<b>Cost</b>
<b>Post-Storm Survey/Assessment (Hanna and Laura)</b>	
<b>Task 1 – Shoreline Surveys/Analysis</b>	\$ 82,499
<b>Task 2 – Beach Profile Surveys/Analysis</b>	\$123,124
<b>Task 3- Packery Channel County Park</b>	\$ 39,599
<b>Task 4 – Online Data Visualization and Archive (CHRGIS) and Final Guidance Report</b>	\$15,084
<b>Task 5 – Event Survey and Analysis: Bayshore Study Gulf Facing Study</b>	\$56,796 \$109,180
<b>Total</b>	\$426,282