

**NOTICE OF  
CITY OF SOUTH PADRE ISLAND  
SHORELINE TASK FORCE MEETING**

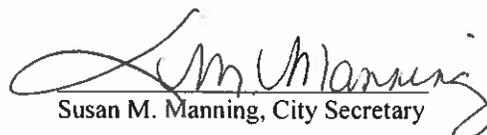
NOTICE IS HEREBY GIVEN THAT THE SHORELINE TASK FORCE OF THE CITY OF SOUTH PADRE ISLAND, TEXAS, WILL HOLD A MEETING ON:

**TUESDAY, AUGUST 13, 2019  
3:00 PM 4601 PADRE BOULEVARD  
SOUTH PADRE ISLAND, TX 78597**

1. Call to Order
2. Pledge of Allegiance
3. Public Comments and Announcements  
*This is an opportunity for citizens to speak to Council relating to agenda or non-agenda items. Speakers are required to address Council at the podium and give their name before addressing their concerns. [Note: State law will not permit the City Council to discuss, debate or consider items that are not on the agenda. Citizen Comments may be referred to City Staff or may be placed on the agenda of a future City Council meeting]*
4. Regular Agenda
  - 4.1. Approval of the minutes for the July 9, 2019 regular meeting.
  - 4.2. Discussion and action to recommend approval of a resolution to recognize that 2020 be "The Year to Embrace the Gulf" to City Council.
  - 4.3. Discussion and action to support and recommend City Council to sign the agreement between the United States Army Corps of Engineers, the City of South Padre Island, and Cameron County for the Planning Assistance to States program and move forward with the regional sediment management plan.
5. Adjourn

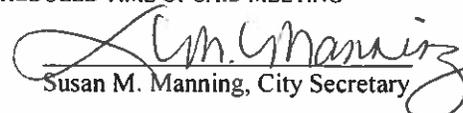
NOTE: One or more members of the City of South Padre Island City Council may attend this meeting; if so, this statement satisfies the requirements of the OPEN MEETINGS ACT.

DATED THIS THE 9 DAY OF AUGUST 2019

  
Susan M. Manning, City Secretary

I, THE UNDERSIGNED AUTHORITY, DO HEREBY CERTIFY THAT THE ABOVE NOTICE OF MEETING OF THE GOVERNING BODY OF THE CITY OF SOUTH PADRE ISLAND, TEXAS IS A TRUE AND CORRECT COPY OF SAID NOTICE AND THAT I POSTED A TRUE AND CORRECT COPY OF SAID NOTICE ON THE BULLETIN BOARD AT CITY HALL/MUNICIPAL BUILDING ON AUGUST 9, 2019, AT/OR BEFORE 5:00 PM AND REMAINED SO POSTED CONTINUOUSLY FOR AT LEAST 72 HOURS PRECEDING THE SCHEDULED TIME OF SAID MEETING



  
Susan M. Manning, City Secretary

THIS FACILITY IS WHEELCHAIR ACCESSIBLE, AND ACCESSIBLE PARKING SPACES ARE AVAILABLE. REQUESTS FOR ACCOMMODATIONS OR INTERPRETIVE SERVICES MUST BE MADE 48 HOURS PRIOR TO THIS MEETING. PLEASE CONTACT BUILDING OFFICIAL, DAVID TRAVIS, ADA DESIGNATED RESPONSIBLE PARTY AT (956) 761-8103.

**CITY OF SOUTH PADRE ISLAND  
SHORELINE TASK FORCE  
MEETING AGENDA REQUEST  
FORM**

**MEETING DATE:** August 13, 2019

**NAME & TITLE:** Kristina Boburka, Shoreline Director

**DEPARTMENT:** Shoreline Department

**ITEM**

Approval of the July 9, 2019 regular meeting minutes.

**ITEM BACKGROUND**

**BUDGET/FINANCIAL SUMMARY**

**COMPREHENSIVE PLAN GOAL**

Chapter III. Parks and Resources

GOAL 1: The City shall ensure protection and conservation of natural resources, such as beaches, dunes, wetlands, Laguna Madre waterfront and native flora and fauna, allowing for their sustainable use and enjoyment by future generations.

Objective 1.1 Beach and dunes shall be protected from both natural and artificial erosion.

**LEGAL REVIEW**

Sent to Legal: YES: \_\_\_\_\_ NO:   X    
Approved by Legal: YES: \_\_\_\_\_ NO: \_\_\_\_\_  
Comments:

**RECOMMENDATIONS/COMMENTS**

Staff supports.

**MINUTES  
CITY OF SOUTH PADRE ISLAND  
SHORELINE TASK FORCE**

**TUESDAY, JULY 9, 2019**

**I. CALL TO ORDER.**

The Shoreline Task Force of the City of South Padre Island, Texas held a regular meeting on Tuesday, July 9, 2019, at the Municipal Complex Building, 2<sup>nd</sup> Floor, 4601 Padre Boulevard, South Padre Island Texas. Chairman Neil Rasmussen called the meeting to order at 3:00 p.m. A quorum was present with: Task Force Members Norma Trevino, Robert Nixon, Abbie Mahan, Patrick McNulty, and Stormy Wall. Member with an excused absence was Virginia Guillot.

City staff members present were: City Manager Randy Smith, Shoreline Director Kristina Boburka, and Shoreline Grant and Special Projects Administrator Erika Hughston.

**II. PLEDGE OF ALLEGIANCE.**

Chairman Neil Rasmussen led the Pledge of Allegiance.

**III. PUBLIC COMMENTS AND ANNOUNCEMENTS:**

Public comments and announcements were given at this time.

**IV. APPROVAL OF THE JUNE 25, 2019 REGULAR MEETING MINUTES.**

Task Force Member Nixon made a motion, seconded by Task Force Member Mahan to approve the regular meeting minutes as submitted. Motion carried unanimously.

**V. APPROVAL OF THE JUNE 28, 2019 SPECIAL MEETING MINUTES.**

Task Force Member Wall made a motion, seconded by Task Force Member Mahan to approve the regular meeting minutes as submitted. Motion carried, McNulty abstained.

**VI. DISCUSSION AND ACTION TO CANCEL THE SHORELINE TASK FORCE MEETING SCHEDULED FOR TUESDAY JULY 23, 2019.**

Task Force Member Wall made a motion, seconded by Task Force Member Nixon to cancel the Shoreline Task for meeting scheduled for July 23, 2019. Motion carried unanimously.

## **VII. DISCUSSION AND POSSIBLE ACTION ON BEACH WAY FINDING.**

Task Force Member Nixon made a motion, seconded by Task Force Member Trevino to approve the Dune Educational Information Brochure with changes recommended by Task Force Member Mahan and to distribute information to the public. Motion carried unanimously.

## **VIII. ADJOURNMENT.**

There being no further business, Chairman Rasmussen adjourned the meeting at 3:13 p.m.

\_\_\_\_\_  
Erika Hughston, Shoreline GSPA

\_\_\_\_\_  
Neil Rasmussen, Chairman

**CITY OF SOUTH PADRE ISLAND  
SHORELINE TASK FORCE  
MEETING AGENDA REQUEST  
FORM**

**MEETING DATE:** August 13, 2019

**NAME & TITLE:** Kristina Boburka, Shoreline Director

**DEPARTMENT:** Shoreline Department

**ITEM**

Discussion and action to recommend approval of a resolution to recognize that 2020 be "The Year to Embrace the Gulf" to City Council.

**ITEM BACKGROUND**

Embrace the Gulf is an awareness campaign by the Gulf of Mexico Alliance (GOMA) to highlight the value of the Gulf of Mexico region. The Gulf provides a variety of amenities for our economy and plays a very important role in the local communities, states, region, and nation. By declaring 2020 as "The Year to Embrace the Gulf," we can co-brand existing activities (dune plantings, beach clean ups, etc.) to spread this message.

**BUDGET/FINANCIAL SUMMARY**

None.

**COMPREHENSIVE PLAN GOAL**

Chapter III. Parks and Resources

GOAL 1: The City shall ensure protection and conservation of natural resources, such as beaches, dunes, wetlands, Laguna Madre waterfront and native flora and fauna, allowing for their sustainable use and enjoyment by future generations.

Objective 1.1 Beach and dunes shall be protected from both natural and artificial erosion.

**LEGAL REVIEW**

Sent to Legal: YES: \_\_\_\_\_ NO:   X  \_\_\_\_\_

Approved by Legal: YES: \_\_\_\_\_ NO: \_\_\_\_\_

Comments:

**RECOMMENDATIONS/COMMENTS**

Staff supports.



GET INVOLVED  
MAKE IT OFFICIAL

<https://embracethegulf.org/>

The Gulf of Mexico provides so much through tourism, in our communities, for our economy, with education, and a fantastic environment. To highlight the value and the vitality of the Gulf of Mexico region, the Gulf of Mexico Alliance conceived an awareness campaign “Embrace the Gulf” for the entire year 2020. The awareness campaign will culminate in a multi-stakeholder, cross-sector celebration of the importance of the Gulf of Mexico throughout the year 2020. We want you involved.

#### Partner

- **Spread the Message** - Share and engage the importance of the Gulf of Mexico through social media, your professional networks, and link the campaign website on yours.
- **Co-brand an Event** - Co-brand existing activities and/or programs with “Embrace the Gulf” to create synergy between all the workshops, conferences, festivals, clean-ups and stewardship events which highlight the importance of our beautiful Gulf.
- **Create Something New** – Engage in a new way; ask us how we have lots of ideas.
- **Pass a Proclamation** - Have your local municipality or organization pass a proclamation resolving that 2020 is the year to embrace the Gulf

#### Sponsor

- **Sponsor the Campaign** - Help fund the awareness efforts, your funds go toward supporting the Embrace the Gulf social media campaign, holding state-level champion events, and distribution of Embrace the Gulf education and engagement. Contact Development Director Becky Ginn for more details.
- **Make a Private Contribution** - Every small amount count, and individuals can make tax-deductible donations to the campaign.

#### Support

By making participation official, partners get

- Official recognition on the ETG 2020 website
- ETG 2020 messaging and campaign support
- Co-promotion through the Gulf of Mexico Alliance’s social media
- Raised awareness of the beloved Gulf of Mexico

The Gulf of Mexico Alliance is a 501c3 multi-state partnership between Texas, Louisiana, Mississippi, Alabama, and Florida established in 2004 by the five Gulf State Governors to enhance the ecological and economic health of the Gulf through increased regional collaboration. Learn more [www.gulfofmexicoalliance.org](http://www.gulfofmexicoalliance.org)



**RESOLUTION NO. 2019-\_\_**

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF  
SOUTH PADRE ISLAND, TEXAS, TO DESIGNATE 2020 AS THE  
YEAR TO EMBRACE THE GULF OF MEXICO.**

**WHEREAS**, The Gulf of Mexico is an ocean basin bounded on the north, northeast, and northwest by the United States, on the south and southwest by Mexico, and on the southeast by Cuba; and

**WHEREAS**, Forming a vibrant region, the five Gulf states of Alabama, Florida, Louisiana, Mississippi, and Texas contribute immeasurably to the nation's economy, security, energy, environment, culture, beauty, diversity, and resilience; and

**WHEREAS**, The Gulf of Mexico's watershed covers more than half of the continental United States; all the rivers in Texas drain into the Gulf, which sustains diverse flora and fauna, providing food, shelter, and habitat to marine and estuarine organisms; and

**WHEREAS**, While supporting the nation's seafood industry, the Gulf also draws people from across the country and around the world for recreational fishing and all manner of water sports; tourism generates hundreds of billions of dollars each year; and

**WHEREAS**, The Gulf region plays a vital role in our nation's defense and aerospace exploration; moreover, it is crucial to oil, gas, and energy production, as well as import and export trade; and

**WHEREAS**, With its combination of commercial activity and natural beauty, the Gulf draws a large population to its thousands of miles of shoreline; one of the most culturally diverse regions in the nation, it is home to millions of residents who embrace the variety of traditions that converge in this unique place; and

**WHEREAS**, The continued dynamism of the Gulf of Mexico is a matter of tremendous import to the entire nation, and by increasing awareness of the region's myriad treasures and limitless value, we help to ensure a sustainable future.

**NOW, THEREFORE BE IT RESOLVED** that the City Council of the City of South Padre Island, Texas, recognizes 2020 as "The Year to Embrace the Gulf" and encourage all patrons to join in this observance.

**PASSED, APPROVED AND ADOPTED** on this the 21st day of August, 2019

**CITY OF SOUTH PADRE ISLAND, TEXAS**

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Patrick McNulty, Mayor

**ATTEST:**

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Susan M. Manning, City Secretary

**CITY OF SOUTH PADRE ISLAND  
SHORELINE TASK FORCE  
MEETING AGENDA REQUEST  
FORM**

**MEETING DATE:** August 13, 2019

**NAME & TITLE:** Kristina Boburka, Shoreline Director

**DEPARTMENT:** Shoreline Department

**ITEM**

Discussion and action to support and recommend City Council to sign the agreement between the United States Army Corps of Engineers, the City of South Padre Island, and Cameron County for the Planning Assistance to States program and move forward with the regional sediment management plan.

**ITEM BACKGROUND**

The City Council of South Padre Island signed a joint letter of intent (LOI) on February 20, 2019 with Cameron County to submit to the US Army Corps. This joint LOI was sent to request help with the US Army Corps' Planning Assistance to the States program to work on a regional sediment management plan. They Army Corps has responded with a statement of work and an agreement. This will allow us to look at our system holistically rather than 'City' and 'County' beaches.

**BUDGET/FINANCIAL SUMMARY**

The total project cost with be \$250,000, 50% of which will be covered by the US Army Corps and 50% by the non-federal sponsor (City of South Padre Island and Cameron County). Total cost for the study would be \$62,500 for the City and County, with \$20,000 for in kind (\$52,500 each).

**COMPREHENSIVE PLAN GOAL**

Chapter III. Parks and Resources

GOAL 1: The City shall ensure protection and conservation of natural resources, such as beaches, dunes, wetlands, Laguna Madre waterfront and native flora and fauna, allowing for their sustainable use and enjoyment by future generations.

Objective 1.1 Beach and dunes shall be protected from both natural and artificial erosion.

**LEGAL REVIEW**

Sent to Legal: YES:  X  NO: \_\_\_\_\_  
Approved by Legal: YES: \_\_\_\_\_ NO: \_\_\_\_\_

**RECOMMENDATIONS/COMMENTS**

Staff supports.



**Eddie Treviño, Jr.**  
*County Judge*

February 18, 2019

Galveston District, U.S. Army Corps of Engineers  
2000 Fort Point Road  
P.O. Box 1229  
Galveston, TX 77550

Subject: Cameron County-South Padre Island Regional Sediment Management Plan  
Letter of Interest- Planning Assistance of States Program

Dear Colonel Zetterstrom:

Cameron County and the City of South Padre Island are requesting assistance from the U.S. Army Corps of Engineers to participate in the Planning Assistance of State Programs for a Regional Sediment Management Plan to address the coastal erosion problems on County and City beaches. The County and City acknowledge that the coastal processes of their beaches do not conform to County or City delineation and must be managed as a single, interdependent and complex system. Gulf beaches in Cameron County are in a persistent erosive condition, with an annual shoreline retreat rate (1950 to 2012) ranging from over 20 feet per year (in the southern end near the mouth of the Rio Grande River) and a retreat rate between 6 and 17 feet per year in the rest of the beaches (as per the latest data of the UT BEG). A greater understanding of the local longshore processes is crucial to fighting beach erosion, as the material placed during BUDM efforts supply the dune system with necessary fetch via the aerial beach and protects the homes, businesses and public beach access recreational areas that lie west of the beach. A Regional Sediment Management Plan will lead to a holistic approach to erosion response, maximize the potential benefit associated with sediment placement, and lead to cohesive management strategies across the region.

We are aware that any costs would be cost-shared 50% federal and 50% non-federal (Cameron County & City of South Padre Island). We would like to further discuss a Cost Sharing Agreement to initiate the Regional Sediment Management Plan and scope of work. We are committed to this project and are willing, able and would be financially prepared to participate. We look forward to executing a cost-sharing agreement for the study at the appropriate time in the process. Thank you for your assistance with this much-needed project. Please contact Joe E. Vega, Cameron Parks Director at 956-761-3700 or Brandon Hill, City of South Padre Island Shoreline Director at 956-761-8166 for further information or assistance.

Sincerely,

  
Eddie Treviño, Jr., County Judge  
Cameron County

  
Dennis Stahl, Mayor  
City of South Padre Island

Attested:   
Sylvia Garza-Perez, County Clerk

Attested:   
Susan Hill, City Secretary



Cameron County Courthouse  
Oscar C. Dancy Building  
Phone (956) 544-0830

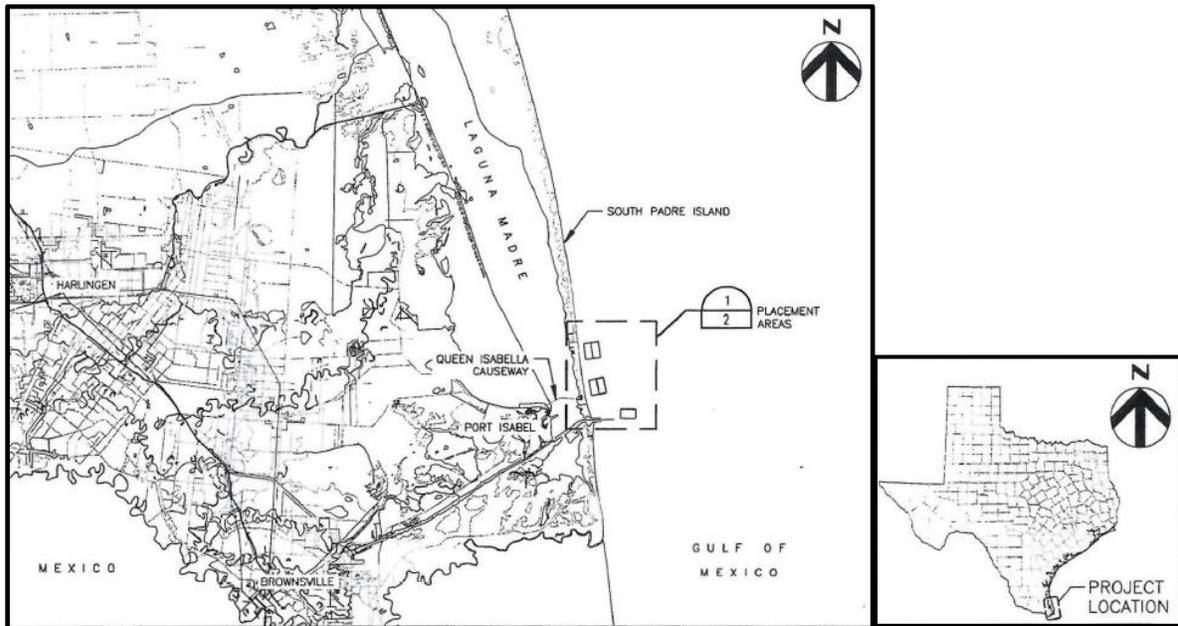
1100 E. Monroe Street, Suite 218  
[etrevino@co.cameron.tx.us](mailto:etrevino@co.cameron.tx.us)

Brownsville, Texas 78520  
Fax (956) 544-0801

# Statement of Work for “SOUTH PADRE ISLAND SAND MANAGEMENT PLAN”

## 1.0 Purpose.

The City of South Padre Island (SPI) engaged the Galveston District (SWG) through the Planning Assistance to States program this past year to monitor and analyze beneficial placement of dredge material in a nearshore berm off the coast of SPI in an study effort titled “Sand Tracer Study of a nearshore berm in South Padre Island, Texas – For Beneficial Use Management Plan”. This Statement of Work (SOW) is a follow-on effort that builds upon this previous year’s work to better quantify the regional to local scale considerations for sediment management. The tasks outlined in this SOW will provide quantitative data on updating the existing sediment management plan for South Padre Island. The study area encompasses the region from Port Manfield inlet down to the Mexican border. This final report will become an updated version of the “South Padre Island Beach Management and Access Plan” this plan will be a comprehensive analysis of the proper ways and means to manage sediment within the region.



## 2.0 Background

### 2.1 General Requirement

The Galveston District (SWG) has been engaged by Cameron County and the City of South Padre through the Planning Assistance to States program to update the South Padre Island Sand Management Plan. This Statement of Work (SOW) is to provide an update to the sediment budget of the region and provide beneficial use and nourishment suggestions in terms of location, duration, and methodology.

### 2.2 Project History and Proposed Methods

On SPI, sediment removed by maintenance dredging is regularly placed back into the littoral system, available for cross shore and longshore sediment transport to the beaches. For nearshore placement, maintenance material is placed by hopper dredge in the Nearshore “Feeder” Berm Site. Previous monitoring of material placed at the Feeder Berm has demonstrated that it moves toward the beach and disperses with the major movement being in the alongshore direction. Table 1 contains the dredging placement history in SPI with 4.4 million cubic yards being placed in the nearshore.

**Table 1. Dredge Placement History**

Year	Type of Placement	Location <sup>1</sup>	Est. Dredged Volume <sup>2</sup> (cy)
1988	Berm	Nearshore Berm	220,000
1991	Berm	Nearshore Berm	580,000
1995	Berm	Nearshore Berm	750,000
1997	Nourishment	Stations 182+29 to 242+29	490,000
	Berm	Nearshore Berm	396,000
1999	Nourishment	Stations 80+00 to 120+00	495,000
	Berm	Nearshore Berm	195,000
2000	Nourishment	Stations 206+00 to 238+00	370,000
2002	Nourishment	Stations 184+00 to 218+00	330,000
	Berm	Nearshore Berm	329,000
2003	Berm	Nearshore Berm	356,000
2005	Nourishment	Stations 9+30 to 30+00	49,000
		Stations 182+00 to 213+00	229,000
2006	Berm	Nearshore Berm	340,000
2007	Berm	Nearshore Berm	443,000
2008	Berm	Nearshore Berm	500,000
2009	Nourishment	Stations 208+40 to 255+00	407,000
2010	Nourishment	Stations 7+00 to 34+00	90,000
		Stations 235+00 to 265+00	130,000
2011	Nourishment	Stations 10+00 to 25+00	199,000
		Stations 240+00 to 267+00	368,000
2012	Nourishment	Stations 10+00 to 25+00	140,000
		Stations 235+00 to 260+00	210,000
2014	Berm	Nearshore Berm	305,000

Other previous work includes numerous studies and publications documenting placements, the ongoing Coastal Texas Mega-Study, Sediment budget creation for the area, Beach-fx modeling, annual beach profile surveys conducted by SPI and USACE, Bureau of Economic Geology studies, previous beach nourishment designs, etc. In addition to previous work conducted, models development through the Coastal Inlets Research Program (CIRP) and the Regional Sediment Management (RSM) Program exist and will be leveraged to help complete analyses discussed in this SOW.

This study will include the following set of tasks. The first task will be to utilize the updated Coastal Modeling System (CMS) numerical model already updated through the previous PAS effort, to quantify sediment vectors and sinks. The second task will be to update the sediment budget for the coastline of Cameron County and incorporate this in the Sediment Budget and Analysis System (SBAS) already developed for the Coastal Texas study. The third task will be to

locate and evaluate sediment bypassing/backpassing options and provide suggestions on siting and potential feasibility. To achieve these goal, the following general procedure will occur:

1. Kick-off meeting to identify current and future needs, plans, and constraints
2. Understand physical processes: review data and previous reports
3. USACE qualitatively evaluates the numerical modeling results of the existing CMS model and subsequently calibrates the model to the physical data
4. Update SBAS and evaluate bypassing/backpassing locations and rates
5. Develop potential alternatives developed in coordination with the City and County. This will include a presentation of the information collected to date and knowledge gleaned. This can be a Sponsor meeting or may also include stakeholders.
6. Understand how potential alternatives perform: Qualitatively evaluate modified physical processes, cost, political, and social impacts potentially employing Beach-Fx
7. Formalize and document the results while providing recommendations that will become part of their Beach Management plan.
8. Potential additional effort if funding allows – monitor 2020 BUDM placement event in Area 5 (north end of the City) and at Isla Blanca Park to determine transport rates and directions.

### **2.3 Project POCs.**

#### **SWG Primary/Technical POC:**

Name: Coraggio Maglio (SWG)

Phone number: 409-941-8517

Email: [Coraggio.K.Maglio@usace.army.mil](mailto:Coraggio.K.Maglio@usace.army.mil)

Mailing address: 2000 Fort Point Rd.  
Galveston TX 77550

#### **SWG Financial POC:**

Name: Trina J. Ruse

Phone number: 409-766-3063

Email: [Trina.J.Ruse@usace.army.mil](mailto:Trina.J.Ruse@usace.army.mil)

Mailing address: 2000 Fort Point Rd.  
Galveston TX 77550

#### **ERDC Primary/Technical POC:**

Name: Brittany Bruder (FRF)

Phone number: (843) 290-8445

Email: [Brittany.L.Bruder@usace.army.mil](mailto:Brittany.L.Bruder@usace.army.mil)

Mailing address: 3909 Halls Ferry Road  
Vicksburg, MS 39180-6199

#### **ERDC Financial POC:**

Name: Robin Dixon

Phone number: 601-634-3377

Email: [robin.w.dixon@usace.army.mil](mailto:robin.w.dixon@usace.army.mil)

Mailing address: 3909 Halls Ferry Road  
Vicksburg, MS 39180-6199

## **2.4 Project Delivery Team.**

Team members that will execute the scope of work will be Paul Hamilton (SWG), Jacob Breaux (SWG), Fred Fenner (SWG), Jason Thies (SWG), Michael Ritz (SWG), Coraggio Maglio (SWG), Honghai Lee (ERDC-CHL), and Brittany Bruder (ERDC-CHL).

## **3.0 Objectives.**

The SOW is to develop a Sand Management Plan for South Padre Island focusing on a long-term plan for beach nourishment, beneficial use of dredged material, and investigating the use of backpassing or bypassing sediment. The Engineer Research and Development Center (ERDC) will support the SWG to improve the sediment budget and model nearshore berm behavior and conduct field data collection activities to improve the understanding of sand transport vectors (rates and directions).

To achieve these goals, the following general process will be applied:

1. Identify current and future needs, plans, and constraints
2. Understand physical processes: review data and previous reports and further develop a numerical model if deemed necessary
3. Develop potential alternatives: within the framework developed above, identify alternatives that meet the stated needs
4. Understand how potential alternatives perform: Qualitatively evaluate modified physical processes, cost, political, and social impacts
5. Formalize and document the plan

This study consists of the following objectives:

1. Leverage all previous work in the region to improve our understanding
2. Utilize numerical model, CMS, to quantify the transport rates and vectors in more granular detail to inform SBAS
3. Collect, analyze, and document sand transport vectors from Port Mansfield to Mexican border
4. Investigate feasibility of using backpassing/bypassing technology to improve coastal sustainability
5. Develop an updated Sand Management Plan
  - a. Focused on leveraging opportunities
  - b. Improved knowledge of regional coastal processes
  - c. Improved resilience of beach access
  - d. Determine location of nodal point near Isla Blanca Park to optimize placement longevity
6. Potential BUDM monitoring will provide an additional physical dataset to validate the results of the numerical modeling and provide improved confidence in results

## **4.0 Scope of Work.**

### **Task 1: Initial Desktop and Numerical Analysis**

**Task 1.1: Data and Literature Review**

This task will begin by reviewing data and previous reports. In particular, the previous Sand Management Plan. Existing datasets will be aggregated for future analysis.

**Task 1.2: Kick-off Meeting and Site Visit**

This task will begin by presenting the literature that has been located and datasets obtained. The Sponsors and stakeholders will be requested to identify any known constraints or needs and identify current plus future plans in the region. The Scope of the Work will be presented for comment. This will also include a site visit along the extents of the project area.

**Task 1.3: Coastal Processes Analysis**

Using the physical data collection and literature review the existing CMS model will be compared and ultimately calibrated to replicate the movement seen in the physical datasets. The CMS model will then be used to further refine the sediment transport rates and vectors in the region.

**Task 1.4: Update and refine SBAS**

The CMS model results will be used to better quantify rates and transport vectors. The existing SBAS will be updated to account for this improved granularity.

**Task 2: BUDM monitoring (potential additional effort)**

BUDM monitoring may occur of this placement event in Area 5 (north end of the City) and at Isla Blanca Park to determine transport rates and directions. This monitoring will provide an additional remote sensing dataset to validate the results of the numerical modeling and provide improved confidence in results.

**Task 2.1: Fabricate mini Argus Cameras**

Four mini Argus camera systems will be procured and assembled.  
<https://apps.dtic.mil/dtic/tr/fulltext/u2/1067054.pdf>

**Task 2.2: Install mini Argus Cameras**

The mini Argus cameras will be installed on the roof of two condos, the locations are to be coordinated by the local Sponsor.

**Task 2.3: Beach surveying**

The SPI staff will conduct periodic land survey of the beaches 2 miles on either side of the placement locations to wading depth at 1,000 foot intervals and whenever a hydrographic survey is conducted. A CESU mechanism will also be used to assist and supplement beach surveying data collections, by collecting short term hydrodynamic datasets.

**Task 2.4: Automate Change Detection Algorithms**

The ERDC will develop scripts to automate the extraction of water depth information from the ARGUS data. The beach survey data will be used to validate the quality of these analyses. If precision/accuracy is inadequate for transport rates, remote sensing data can still be used to calibrate/validate CMS model results.

**Task 2.5: Determine Sediment Vectors**

A CESU mechanism will be used to perform tracer counts on the collected samples.

**Task 2.6: Qualitatively Estimate Sediment Transport**

Volume change analysis of the remote sensing data along with the change detection results will enable to determination of transport rates. This data will then be able to be analyzed to determine the quantity and timescales of sediment movement by these placements.

**Task 2.7: Approximate the physical processes using CMS and calibrate the existing model**

Using the physical and remotely sensed data the existing CMS model will be compare and ultimately calibrated to replicate the movement seen in this new physical dataset.

**Task 3: Evaluation of Bypassing/Backpassing deployment locations****Task 3.1: Analyze Sand Transport Rates and Directions**

Sediment transport and shoaling data will be utilized to infer directions and associated rates.

**Task 3.2: Conceptual Bypassing/Backpassing system**

An initial conceptual design of a sediment bypassing/backpassing system will be developed along with associated rough costs.

**Task 4: Alternative Analysis****Task 4.1: Develop Potential Alternatives and coordination meeting**

A visit will be conducted to South Padre Island with the Sponsors, and any other stakeholders they invite. The objectives of this meeting include discussing the previously completed Sand Management Plan, identifying County and City needs, clarifying individual roles and responsibilities, and discussing potential alternatives (scoping) for further analysis and incorporation into the Sand Management Plan.

**Task 4.2: Analyze Selected Alternatives**

Selected alternatives will be analyzed to quantify performance and inform development of the sand management plan. The modified CMS model described in Task 1.3 will be applied to help quantify projected performance of each alternative. Qualitatively evaluate modified physical processes, cost, political, and social impacts potentially employing Beach-Fx modeling that is currently being performed as part of the Coastal Texas Study.

**Task 5: Update Sand Management Plan**

Alternative performance and placement optimization, and the associated results of the analysis will become part of the updated Sand Management Plan. This update will include recommendations for structural modifications, if desired, and bypassing/backpassing configurations at specified locations. Recommended solutions will be documented in sufficient detail to enable future design projects. However, structural design, plans, specifications, and cost estimates will not be included in the Plan. A final team meeting to discuss the updates to the Sand Management Plan will be held in the SPI or SWG offices.

## 5.0 Cost.

Costs are shown in Table 1 below.

**Table 1. Estimated cost.**

	<b>Total</b>	<b>ERDC</b>	<b>Sponsor</b>	<b>SWG</b>
Task 1.1: Data and literature review	\$5,000			\$5,000
Task 1.2: Kick off meeting and Site Visit	\$10,000			\$10,000
Task 1.3: Coastal Processes Analysis	\$10,000			\$10,000
Task 1.4: Update and refine SBAS	\$7,000			\$7,000
Task 2.1: Fabricate Mini Argus 4	\$32,000	\$30,000		\$2,000
Task 2.2: Install mini ARGUS 4	\$15,000	\$10,000		\$5,000
Task 2.3: Beach surveying	\$30,000		\$20,000	\$10,000
Task 2.4: Automate change detection	\$9,000	\$9,000		
Task 2.5: Determine sediment vectors	\$10,000			\$10,000
Task 2.6: Quantatively est. transport	\$20,000	\$10,000		\$10,000
Task 2.7: CMS Calibrate	\$10,000	\$10,000		
Task 3.1: Analyze transport rates	\$35,000	\$20,000		\$10,000
Task 3.2: Conceptual Bypassing/ Backpassing	\$10,000			\$10,000
Task 4.1: Develop alternatives	\$15,000			\$15,000
Task 4.2: Analyze alternatives	\$17,000			\$17,000
Task 5: Update Sand Management Plan	\$20,000			\$20,000
<b>Subtotal</b>	<b>\$250,000</b>	<b>\$84,000</b>	<b>\$20,000</b>	<b>\$141,000</b>

### **Basis:**

1. Travel for up to 3 personnel from Galveston to SPI is included for a total of 2 meetings.
2. SPI or the County will host the meetings.
3. New data collection is included.
4. Schedule is based on integral involvement of City and County staff as noted in this SOW. Labor for City and County personnel is not included in this proposal's costs except for \$20k of Work in Kind (WIK), Task 2.3 Beach Surveying.
5. Work in Kind (WIK) for the Sponsors is estimated based on a proposed field data collection efforts. Under the Planning Assistance to States program the Sponsors will be responsible for half of the total of the overall agreement. The WIK total is subtracted from the cash they are to provide.

## 6.0 Schedule

- The site visit and kick-off meeting with the Sponsor and SWG will be conducted within 90 calendar days of receipt of funds.
- The Draft Sand Management Plan will be provided within 300 calendar days of SWG receipt of funds, unless Task 2 is approved and then an additional 100 days will be added.

- An interim presentation to the Sponsors describing the information collected to date will be conducted within 200 calendar days of SWG receipt of funds, unless task 2 is added.
- The 2019 BUDM project is to occur in the fall of 2019.

**7.0 Deliverables.** Deliverables, associated with tasks, are described below. All deliverables will be in electronic format only. Presentations will be conducted using PowerPoint.

- Task 1.2: Site visit and kick-off meeting notes in memo format.
- Task 4.1: meeting to develop alternatives with Sponsor.
- Task 5: Sand Management Plan in Technical Report format.

The Sand Management Plan will be delivered in Word and PDF in the Technical Report or other appropriate format.

**8.0 Sponsor’s Responsibilities.**

- Coordinate site visit and project meetings.
- Coordinate location of the mini ARGUS camera systems
- Provide the benefits analysis for selected alternatives in a conceptual format. (i.e. which ones will make the most impact on stakeholder concerns after the impact to physical processes is known)
- Review draft reports/memos.
- Participate in the project meetings.
- Deliver WIK activities following the PAS agreement if elected.

**9.0 Progress Reporting.** Monthly progress reports will be made via email. Reports will list work complete, outstanding action items, and upcoming deadlines.

**10.0 Technology/Focus Area.** Navigation, Flood Risk Management

**11.0 Security.** There are no Security limitations on this work.

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**SECTION 22 AGREEMENT  
FOR THE DEVELOPMENT OF A COMPREHENSIVE PLAN  
JUNE 8, 2016  
(with updates as of MAY 19, 2017)**

**APPLICABILITY AND INSTRUCTIONS:**

1. ~~The attached agreement is provided as a template to be used in the development of an agreement for the provision of assistance to develop a comprehensive plan pursuant to Section 22 of the Water Resources Development Act of 1974, as amended (42 U.S.C. 1962d-16). Guidance on the development of comprehensive plans under this authority is provided in Appendix G of ER 1105-2-100 and Implementation Guidance for Section 3015 of WRRDA 2014. A separate template agreement is available for the provision of technical assistance under Section 22.~~
2. ~~The following options, including language for the Agreement, is addressed in the Attachment:~~
  - a. ~~Option 1: Multiple Sponsors (page A-1).~~
  - b. ~~Option 2: Comprehensive Plan in American Samoa, Guam, the Northern Mariana Islands, the Virgin Islands, or Puerto Rico, or involving an Indian Tribe (page A-2).~~
3. ~~Reminder: Make all required insertions, including language associated with the option; remove this cover page; remove the open and close brackets and any instructional text; ensure the spacing and page breaks throughout the agreement are appropriate; and delete the Attachment.~~
4. ~~In accordance with Appendix G of ER 1105-2-100, the District must submit the negotiated Agreement to the MSC Planning Assistance to States Program Manager for approval. Division Counsel concurrence in the agreement is required prior to approval. A Certification Regarding Lobbying needs to be included with the Agreement. The certificate can found on the Corps' "Project Partnership Agreements" website under the "Forms" tab.~~

AGREEMENT  
BETWEEN  
THE DEPARTMENT OF THE ARMY  
AND  
~~INSERT FULL NAME OF NON-FEDERAL SPONSOR~~ CAMERON COUNTY  
AND CITY OF SOUTH PADRE ISLAND  
FOR DEVELOPMENT OF A COMPREHENSIVE PLAN

THIS AGREEMENT is entered into this \_\_\_ day of \_\_\_\_\_, \_\_\_\_, by and between the Department of the Army (hereinafter the "Government"), represented by the U.S. Army Engineer, Galveston~~Insert Name of District~~ (hereinafter the "District Engineer") and the Cameron County and City of South Padre Island~~Insert Full Name of Non-Federal Sponsor~~ (hereinafter the "Non-Federal Sponsor"), represented by the County Judge and City Mayor~~Insert Title~~.

WITNESSETH, THAT:

WHEREAS, Section 22 of the Water Resources Development Act of 1974, as amended (42 U.S.C. 1962d-16) authorizes the Secretary of the Army, acting through the Chief of Engineers, to provide assistance in the preparation of a comprehensive water resources plan (hereinafter the "Plan") to a State or non-Federal interest working with a State, and to establish and collect fees for the purpose of recovering 50 percent of the costs of such assistance except that Secretary may accept and expend non-Federal funds provided that are in excess of such fee; and

WHEREAS, the Government and the Non-Federal Sponsors have the full authority and capability to perform in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

1. The Government shall develop the Plan, in coordination with the Non-Federal Sponsors, in accordance with the attached Scope of Work, and any modifications thereto, that specifies the scope, cost, and schedule for activities and tasks, including the Non-Federal Sponsor-s' in-kind services.

2. The Non-Federal Sponsors shall provide 50 percent of the costs for developing the Plan in accordance with the provisions of this paragraph. As of the effective date of this Agreement, the costs of developing the Plan are projected to be \$ 250,000.00, with the Government's share of such costs projected to be \$ 125,000.00 and the Non-Federal Sponsor-s' share of such costs projected to be \$ 125,000.00, which includes estimated credit in the amount of \$ 20,000.00 for in-kind services.

a. After considering the estimated amount of credit for in-kind services that will be afforded in accordance with paragraph 4, if any, the Government shall provide the Non-Federal Sponsors with a written estimate of the amount of funds

required from the Non-Federal Sponsors for the initial fiscal year of development of the Plan, with a fiscal year beginning on October 1<sup>st</sup> and ending on September 30<sup>th</sup> of the following year. No later than 15 calendar days after such notification, the Non-Federal Sponsors shall provide the full amount of such funds to the Government by delivering a check payable to “FAO, USAED, Galveston (M3) ~~Insert District and EROC code, e.g., New Orleans (B2)~~” to the District Engineer or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

b. No later than August 1<sup>st</sup> prior to each subsequent fiscal year during development of the Plan, the Government shall provide the Non-Federal Sponsors with a written estimate of the amount of funds required from the Non-Federal Sponsors during that fiscal year. No later than September 1<sup>st</sup> prior to that fiscal year, the Non-Federal Sponsors shall provide the full amount of such required funds to the Government using one of the payment mechanisms specified in paragraph 2.a. above.

c. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsors to cover the Non-Federal Sponsors' costs of developing the Plan, the Government shall provide the Non-Federal Sponsors with written notice of the amount of additional funds required. Within 60 calendar days of such notice, the Non-Federal Sponsors shall provide the Government with the full amount of such additional funds.

d. Upon completion of the Plan and resolution of any relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsors with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsors, the Non-Federal Sponsors, within 60 calendar days of written notice from the Government, shall provide the Government with the full amount of such additional funds. Should the final accounting determine that the Non-Federal Sponsors has provided funds in excess of its required amount, the Government shall refund the excess amount, subject to the availability of funds. Such final accounting does not limit the Non-Federal Sponsors' responsibility to pay its share of costs, including contract claims or any other liability that may become known after the final accounting.

3. In addition to its required cost share, the Non-Federal Sponsors may determine that it is in its best interests to provide additional funds for development of the Plan. Additional funds provided under this paragraph and obligated by the Government are not included in calculating the Non-Federal Sponsors' required cost share and are not eligible for credit or repayment.

4. The in-kind services includes those activities (including services, materials, supplies, or other in-kind services) that are required for development of the Plan and would otherwise have been undertaken by the Government and that are specified in the Scope of Work and performed or provided by the Non-Federal Sponsors after the effective date of this Agreement and in accordance with the Scope of Work. The

Government shall credit towards the Non-Federal Sponsor's share of costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor<sup>s</sup> incurs in providing or performing in-kind services, including associated supervision and administration. Such costs shall be subject to audit in accordance with paragraph 9 to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

a. As in-kind services are completed and no later than 60 calendar day after such completion, the Non-Federal Sponsor<sup>s</sup> shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees. Failure to provide such documentation in a timely manner may result in denial of credit. The amount of credit afforded for in-kind services shall not exceed the Non-Federal Sponsor's share of costs.

b. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind services are completed and credit is afforded; for the value of in-kind services obtained at no cost to the Non-Federal Sponsor<sup>s</sup>; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

5. The Non-Federal Sponsor<sup>s</sup> shall not use Federal Program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Plan. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

6. In carrying out its obligations under this Agreement, the Non-Federal Sponsor<sup>s</sup> shall comply with all the requirements of applicable Federal laws and implementing regulations, including, but not limited to: Title VI of the Civil Rights Act of 1964 (P.L. 88-352), as amended (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); and the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto.

7. Upon 30 calendar days written notice to the other party, either party may elect, without penalty, to suspend or terminate further development of the Plan. Any suspension or termination shall not relieve the parties of liability for any obligation incurred.

8. As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

9. The parties shall develop procedures for the maintenance by the Non-Federal Sponsors of books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting. The Non-Federal Sponsors shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

a. The Government may conduct, or arrange for the conduct of, audits of the Plan. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits for the Plan shall not be included in the shared costs of the Plan, but shall be included in calculating the overall Federal cost of the Plan.

b. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsors to inspect books, records, documents, or other evidence pertaining to costs and expenses maintained by the Government, or at the request of the Non-Federal Sponsors, provide to the Non-Federal Sponsors or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsors' activities under this Agreement. The costs of non-Federal audits shall be paid solely by the Non-Federal Sponsors without reimbursement or credit by the Government.

10. In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsors each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

11. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by certified mail, with return receipt, as shown below. A party may change the recipient or address for such communications by giving written notice to the other party in the manner provided in this paragraph.

If to the Non-Federal Sponsors:

[Cameron County Judge](#)  
[1100 E. Monroe Street; Suite 218](#)  
[Brownsville, Texas 78520](#)

[and](#)

[City of South Padre Island](#)  
[321 Padre Blvd](#)  
[South Padre Island, Texas 78597](#) ~~[\[Insert Title and Address of Sponsor representative to receive notices\]](#)~~

If to the Government:

[U.S. Army Corps of Engineers](#)  
[Galveston District](#)

2000 Fort Point Rd  
Galveston, Texas 77550{Insert Title and Address of  
Government representative to receive notices}

12. To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

13. Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not a party to this Agreement.

14. The obligations and responsibilities of the Non-Federal Sponsors shall be joint and several, such that each Non-Federal Sponsors shall be liable for the whole performance of the obligations and responsibilities of the Non-Federal Sponsors under the terms and provisions of this Agreement. The Government may demand the whole performance of said obligations and responsibilities from any of the entities designated herein as one of the Non-Federal Sponsors.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY {CAMERON COUNTY JUDGEINSERT

BY: \_\_\_\_\_ BY: \_\_\_\_\_  
TIMOTHY R. VAIL{INSERT TYPED NAME} \_\_\_\_\_ Eddie  
Trevino, Jr.{INSERT TYPED NAME}  
Colonel, U.S. Army{Insert Colonel, U.S. Army or \_\_\_\_\_ County  
Judge{Insert Full Title}  
District Engineer

DATE: \_\_\_\_\_ DATE: \_\_\_\_\_

\_\_\_\_\_  
CITY OF SOUTH PADRE ISLAND

\_\_\_\_\_  
BY: \_\_\_\_\_  
\_\_\_\_\_  
Patrick McNulty  
Mayor  
\_\_\_\_\_