NOTICE OF MEETING
CITY OF SOUTH PADRE ISLAND
SHORELINE TASK FORCE

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.***

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

MONDAY, JUNE 19, 2017
3:00 P.M. AT THE MUNICIPAL BUILDING,
CITY COUNCIL CHAMBERS, 2ND FLOOR
4601 PADRE BOULEVARD, SOUTH PADRE ISLAND, TEXAS

1. Call to Order.

2. Pledge of Allegiance.

3. Public Comments and Announcements: *This is an opportunity for citizens to speak to Task Force relating to agenda or non-agenda items.* ***Speakers are required to address the Task Force at the podium and give their name before addressing their concerns.*** *[Note: State law will not permit the Shoreline Task Force 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 Shoreline Task Force meeting]*

4. Approval of the May 22, 2017 special meeting minutes.

5. Discussion and possible action to recommend City Council approve Resolution No. 2017-## approving and supporting the submittal of the South Padre Island Beach Nourishment with Beneficial Use of Dredge Material Project Goal Summary for CEPRA Cycle 10 funding. (Hill)

6. Discussion and possible action to recommend City Council select HDR for professional services in creating the South Padre Island Resilient Public Access and Education, Conservation, and Tourism Master Plan. (Hill)

7. Adjournment.

DATED THIS THE 15TH DAY OF JUNE 2017

CITY OF SOUTH PADRE ISLAND

Susan Hill, City Secretary

I, THE UNDERSIGNED AUTHORITY, DO HEREBY CERTIFY THAT THE ABOVE NOTICE OF MEETING OF THE SHORELINE TASK FORCE 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 **JUNE 15, 2017** AT/OR BEFORE **4:00 P.M.** AND REMAINED SO POSTED CONTINUOUSLY FOR AT LEAST 72 HOURS PRECEDING THE SCHEDULED TIME OF AID MEETING.

Susan Hill, 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.

Item No. 4

CITY OF SOUTH PADRE ISLAND
SHORELINE TASKFORCE
MEETING
AGENDA REQUEST FORM

MEETING DATE: 6/19/2017

NAME & TITLE: Brandon N. Hill, Shoreline Director

DEPARTMENT: Shoreline Department

ITEM

Approval of the May 22, 2017 meeting minutes

ITEM BACKGROUND

BUDGET/FINANCIAL SUMMARY

COMPREHENSIVE PLAN GOAL

LEGAL REVIEW

Sent to Legal: YES: _____ NO: ____X_____
Approved by Legal: YES: _____ NO: ____X_____
Comments:

RECOMMENDATIONS/COMMENTS

MINUTES
CITY OF SOUTH PADRE ISLAND
SHORELINE TASK FORCE

MONDAY, May 22, 2017

I. Call to Order.

The Shoreline Task Force of the City of South Padre Island, Texas held a special meeting on Monday, May 22, 2017, at the Municipal Complex Building, 2nd Floor, 4601 Padre Boulevard, South Padre Island Texas. Chairman Troy Giles, called the meeting to order at 3:18 p.m. A quorum was present: Task Force Member Virginia Guillot, Stormy Wall, and Neil Rasmussen were present and Norma Trevino, Kerry Schwartz and Thor Lassen were absent from the meeting.

City staff members present were: City Manger Susan Guthrie, Assistant City Manager Darla Jones, Shoreline Management Director Brandon Hill, and Shoreline Program Coordinator Jose Manuel Aguilar,

II. Pledge of Allegiance.

Mr. Troy Giles led the Pledge of Allegiance.

III. Public Comments and Announcements.

No public comments.

IV. Approval of the May 15, 2017 meeting minutes.

Task Force Member Neil Rasmussen made a motion to approve the May 15, 2017 meeting minutes, seconded by Virginia Guillot. Motion passed unanimously, with Chairman Troy Giles abstaining from the vote and Kerry Schwartz, Norma Trevino and Thor Lassen absent from the vote.

V. Discussion and possible action to recommend City Council grant the beach and dune permit for 6800 Padre Blvd (Claytons Beach Pier) with GLO comments. (Hill)

Task Force Member Neil Rasmussen made a motion to recommend City Council grant the beach and dune permit for 6800 Padre Blvd (Claytons Beach Pier) with GLO comments, seconded by Storm Wall. Motion passed unanimously, with Kerry Schwartz, Norma Trevino and Thor Lassen absent from the vote.

VI. Adjournment.

There being no further business, Task Force Chairman Troy Giles adjourned the meeting at 3:51p.m.

_____ _____

Jose Aguilar, Program Coordinator Troy Giles, Chairman

Item No. 5

CITY OF SOUTH PADRE ISLAND
SHORELINE TASKFORCE
MEETING
AGENDA REQUEST FORM

MEETING DATE: 6/19/2017

NAME & TITLE: Brandon N. Hill, Shoreline Director

DEPARTMENT: Shoreline Department

ITEM

Discussion and possible action to recommend City Council approve Resolution No. 2017-## approving and supporting the submittal of the South Padre Island Beach Nourishment with Beneficial Use of Dredge Material Project Goal Summary for CEPRA Cycle 10 funding. (Hill)

ITEM BACKGROUND

The CEPRA program has been an important source of funds when it comes to the BUDM projects. Through this program the City has been able to partner with the State at a 75% to 25% partnership. The General Land Office is now accepting Project Goal Summaries for consideration. We don't know the exact cost of the project, as it depends on the amount of material available but we can use average costs from past projects.

BUDGET/FINANCIAL SUMMARY

Funds will need to be allocated next fiscal year from Fund 81 in the amount of $450,000 to meet the match of requested funds from the state in the amount of$1,250,000.

COMPREHENSIVE PLAN GOAL

5.A. Secure funding for beach nourishment.
5.D. Dedicate funding for beach and dune development and maintenance

LEGAL REVIEW

Sent to Legal:	YES: _____	NO: ____X_____
Approved by Legal:	YES: _____	NO: ____X_____

Comments:

RECOMMENDATIONS/COMMENTS

Staff supports the submittal of the project goal summary.

RESOLUTION NO. 2017-##

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PADRE ISLAND, TEXAS, SHOWING SUPPORT FOR AND AUTHORIZING THE SUBMISSTION OF A PROJECT GOAL SUMMARY FOR CEPRA CYCLE 9 TO THE TEXAS GENERAL LAND OFFICE

WHEREAS, the City of South Padre Island is experiencing significant beach erosion and narrowing of the public beach; and

WHEREAS, the economy and the quality of life of the City of South Padre Island and its residents and visitors are dependent upon the stabilization of the public beach with beach re-nourishment projects and dune restoration.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SOUTH PADRE ISLAND, TEXAS:

Section 1: The City Council support and approve the submission of CEPRA Cycle 10 project goal summary to solicit funding for the following essential project:

1. Brazos Santiago Pass Beneficial Use of Dredge Material

Section 2: The City Manager for the City of South Padre Island, Texas, is hereby authorized to execute any and all applications and contract forms as may be necessary for and on behalf of the City to the State of Texas and its General Land Office and the Federal Government.

PASSED, APPROVED AND ADOPTED on this the ##th day of June 21, 2017.

ATTEST: CITY OF SOUTH PADRE ISLAND, TEXAS

_____ _____

Susan M. Hill, City Secretary Bharat Patel, Mayor

CEPRA Project No.: _____
(Agency Use Only)

Date Received: _____
(Agency Use Only)

PROJECT GOAL SUMMARY (PGS) APPLICATION FORM

For Erosion Response Project Funding Under the
Coastal Erosion Planning and Response Act (CEPRA) Cycle 10

Potential project partners must submit all required information using this form.

Applicant Information

Application Type: (•) Regular Submission ( ) Emergency Submission

If emergency submission, briefly explain the emergency situation the project proposes to mitigate:

PGS Application Submittal Date (mm/dd/yy): 7/3/17

Project Title: Brazos Santiago Pass Beneficial Use of Dredge Material

Name of Potential Project Partner:

Physical Address: 4601 Padre Blvd.

City: South Padre Island Zip+4: 78597 - 9998

Point of Contact (POC)

Entity Name:City of South Padre Island

Contact Name:Brandon N. HIll

Title: Shoreline Director

Phone: 956 - 761 - 8166 ext.: Fax: - -

Email: bhill@myspi.org

Authorizing Official (if different from POC)

Entity Name: City of South Padre Island

Name: Susan Guthrie

Title: City Manager

PROJECT GOAL SUMMARY (PGS) APPLICATION FORM
For Erosion Response Project Funding Under the
Coastal Erosion Planning and Response Act (CEPRA) Cycle 10

Project Type (check all that apply)

☒ Beach Nourishment
☐ Dune Restoration
☐ Shoreline Protection
☐ Marsh Restoration or Protection
☐ Debris Removal
☐ Storm Damage Mitigation Project
☐ Post-Storm Damage Assessment Project
☐ Study/Research Project
☐ Demonstration Project
☐ Other (describe):

For proposed Construction phase projects does the applicant propose to be the lead project partner?
○ Yes ○ No

Does the applicant have legal access to/control of the project site, or the necessary easements/access agreements in place?
○ Yes ○ No

****

For Beach Nourishment and Dune Restoration Projects only:

Does project incorporate beneficial use of dredged material (BUDM)?
◉ Yes ○ No

Is a sand source identified for beach nourishment?
◉ Yes ○ No

If "Yes" to either of the above two questions, please respond to the following:

1. Location of sand source: Brazos Santiago Pass
2. Owner of sand source: USACE
3. Cost of sand per cubic yard: incremental cost average of $2.50 based on 3 previous USACE BUDM projects (CEPRA 1165, 1356, and 1456)
4. Is the source permitted by the US Army Corps of Engineers? ◉ Yes ○ No
   If no, please attach, if available:
   a. sieve analysis of sand
   b. chemical analysis of sand
   c. archeological survey of borrow area
5. Quantity of sand available (cubic yards): average CY used is 300,000 based on 3 previous USACE BUDM projects listed above
6. Describe any availability restrictions:

****

Project Length

For Beach Nourishment and Shoreline Protection projects, length of project in linear feet: Approximately 10,000 Lf

For Marsh Restoration projects, length of protective barrier in feet and acreage of marsh being protected:

Project Location

County or counties where project is located: Cameron County

State Representative name(s) /district(s) where project is located: Oscar Longoria, Rene O. Oliveira, Eddie Lucio, III

State Senator name(s) /district(s) where project is located: Eddie Lucio Jr

US Congressional Representative name(s) /district(s) where project is located: Filemon Vela

Erosion Rate at Project Location

Describe the erosion rate (feet/year) in the vicinity of the project: up to -10

NOTE: Historical average erosion rate data for Texas Gulf-facing shoreline is found in the Texas Shoreline Change Atlas, published online by the University of Texas at Austin Bureau of Economic Geology at http://coastal.beg.utexas.edu/shrelinechange/.

Hazard Mitigation Eligibility

Is there a Hazard Mitigation Plan in place for the proposed project area?

(•) Yes ( ) No

If yes, name of local jurisdiction responsible for hazard mitigation: City of South Padre Island

Is the proposed project eligible for FEMA disaster Public Assistance or mitigation funds under the Hazard Mitigation Grant Program?

( ) Yes ( ) No

Funding Summary

Total CEPRA Funds Requested: $1250000.00

Total Partner Federal Match Funding: $0.00

Total Partner Non-Federal Match Funding: $450,000

Total Project Cost: $1700000.00

Sources of Match Funding

In the table below, list secured sources of match funding including any federal funding sources, and in-kind services. For each funding source indicated as committed in the table below, please attach to this PGS a signed funding commitment letter or other documentation on the funding organization's letterhead substantiating the commitment of funding and/or in-kind sources. This documentation should indicate each approved funding amount; funding availability date; funding expiration date; and other constraints, if applicable. Do not include requested CEPRA Cycle 10 funding in this table.

Funding Source for Match	Cash Amount	In-Kind Amount	Is funding committed for the Cycle 10 biennium? (Y/N)	Funding Availability Date (mm/dd/yy) Ex:02/02/17	Funding Expiration Date (mm/dd/yy)	Other Constraints (describe)
City of South Padre Island	$450000.00	$	(•) Y ( ) N	10/1/17	10/1/18	Assuming the City Council approves the budgets or FY 17 and FY 18
	$	$	( ) Y (•) N			
	$	$	( ) Y (•) N			
	$	$	( ) Y (•) N			
TOTALS	$450000.00	0				

Project Description (500-word limit)

Provide a narrative of the project description that addresses <u>each of the following</u>:

Describe the location and geographic scope of the erosion problem:
The City of South Padre Island sits at the southern end of a unique Texas Barrier Island. It is a densely developed tourist destination directly juxtaposed against some of the most pristine beaches on the Texas shoreline. The furthest south end of the island is within the wave shadow of the Brazos-Santiago jetties allowing it to maintain its stable condition. For years the City of South Padre Island has focused its nourishments on an area dubbed a hotspot for erosion. The City of South Padre Island now wishes to deploy its available BUDM material south of that area, allowing the middle of the island which currently experiences dune scarping daily to restore its aerial beach. This area stretches at least 4000 feet from station 0, the current southern extent of the BUDM area. With the Islands littoral system the Shoreline department believes that placing the material further south may increase its life-span on the shores of South Padre Island

Describe the desired outcome(s) of the proposed project:
The City of South Padre Island has a long and successful tradition of utilizing BUDM projects to hold Island roll-over at bay and allow the city to remain the tourisms Mecca that it is. The focus on the hotspot has left the beaches on the center of the island to grow thinner and thinner. We seek to place the material in this area and allow it to experience a slower journey North than material that is placed in the hotspot seems to experience. The material will still reinforce the hotspot but it will serve a purpose further South as well.

This sand source will: 1) Reduce and possibly prevent loss of property and public infrastructure caused by the chronic retreat of the beach within the project area; 2) Enhance the usability and accessibility of the public beach for recreational purposes; 3) Minimize storm damage caused by high tides and waves to private property and public infrastructure; and 4) Re-establish and help create and stabilize dunes on the north end of City providing protection from storms and enhancements to the Gulf Beach natural flora and fauna.

Discuss any prior erosion response work, including a listing of any known erosion response studies and investigations in the vicinity of the proposed project, and whether the proposed project complements existing erosion response measures:
The City of South Padre Island has had 21 BUDM projects in the last 29 years and 12 of those have been on shore beach placement. As a part of this well-oiled process the GLO and the City have cost shared the annual survey performed by HDR. This makes South Padre Island one of the most well-studied beaches in the Gulf, maybe even the US.

Funding of this project will compliment prior erosion response work previously completed on the City's beach. These projects include surveys and beneficial use of dredge material for beach nourishment projects in which the City of SPI and the General Land Office leveraged funds against the Army Corps of Engineers dredge money reducing the cost of beach renourishment by half. These projects took place March 2012, February 2011, March 2010, February 2009, December 2008, November 2004, November 2002, December 2000, February 1999, and February 1997. The City's collaborated efforts in past years include a project similar to this proposal alongside Texas Department of Transportation (TxDOT) and the Texas General Land Office (utilizing CEPRA funds). This collaboration provided a smaller scale beach renourishment project by hauling beach quality sand blown over the highway north of City to the north end of the City's beach. The previously mentioned projects took place in March 2009, March 2008, February 2007, November 2002, and February 2001. Unforuntely that source of sand is no longer available to the City.

Working with the local South Texas Surfrider Foundation the City has organized and completed mulitple volunteer plantings and harvests in an attempt to fill in gaps along the dune line. The dune line provides protection against storm surge. The City has successfully completed one grant in CMP Cycle 17 which vegetated 6 acres of bare dune areas and planted over 190,000 plants on the beach. Currently in Cycle 19 we have planted 70,000 plants this year.

This project will be one of a continuing session of maintenance BUDM renourishment collaborative projects between the City, Cameron County, Port of Brownsville, GLO and USACE. The City's beaches maintain extensive monitoring and availablility for study renourishment events averaged one every two years. This project compliments the City's plan for erosion and maintenance of the beach.

Describe the proposed work sequencing including, if applicable, whether the proposed project will be divided into phases (e.g. reconnaissance study, preliminary engineering, alternatives analysis/feasibility study, permitting, engineering design, construction):
The USACE has nourishment in this area down to a science. We will continue to work with local USACE offices and GLO partners to ensure that each BUDM event performed is as successful as it can be.

For this project, the City requests CEPRA Funding for the following:
A. Conduct annual closure depth maintenance surveys of the City 's beach These surveys are necessary to determine the impact of beach renourishment on the Island and the beach/sand system within the lower Gulf of Mexico Closure depth surveys are estimated to cost approximately $50,000 for each survey.
B. Engineering and design of beach/beach renourishment project as per FEMA requirements. In order to receive FEMA disaster reimbursements funds, the City 's beach must be engineered and surveyed regularly. The engineering design work for this project is estimated at $25,000.
C. Beach Renourishment- another coordinated phase between the City, US Army Corps

of Engineers, Cameron County, Port of Brownsville, and General Land Office for beneficial use of dredge material from dredging of Brazos Santiago Pass. The City benefited from this project 13 times beginning 1997 as a sand source to maintain and widen the City's beach. The proposed project involves the following:
• Coordination with Army Corps of Engineers and Port of Brownsville regarding schedules to dredge Brazos Santiago Pass;
• Coordination with coastal engineering firm for survey work, engineering work to determine estimated volume of sand available and calculations to determine best placement location for sand deposition - both dredged and hauled sand material; and
• Coordination with General· Land Office regarding contracts and funding mechanisms.
The City has completed work on updating previous permits and coastal boundary surveys. No expecation of delay or difficulty in renewing USACE permits to allow deposition of dredge material is expected.

Recommend the preferred erosion response alternative that would address the problem, if known:
Alternative sand sources (eg off shore) for beach noursihment for larger scale beach nourishment. $/cy of sand is much higher for these sources.

Project Benefits

Provide a narrative of the effects and benefits of the project for <u>each of the following:</u>

Describe the effect and benefits of the proposed project on public safety, beach access and public infrastructure, and property threatened by erosion:
The BUDM on SPI is crucial to fighting beach erosion, feeding out dune system with enough fetch over the aerial beach and protecting the homes and business that lie West of the beach. The sand is a vital part of maintaining our shoreline, without it our entire Island could be undermined. Due to the lack of seawall the City of South Padre Island relies entirely on natural shoreline protection. The sand serves not only to buffer us from the ocean but also provides a wide recreational area on which hundreds of thousands throng.

This project will widen a portion of the City's beach, byproducts of which are: a higher quality of the public beach within the project area which insures beach access; increased economic activity and associated tax revenues; reduced public costs of post-storm response; reduced infrastructure maintenance and/or relocations costs; greater habitat value in the healthy beach/dune system, and reduced future erosion response costs. Furthermore, widening the beach in front of private property protects those structures, inhabitants, and reduces damage caused to those structures by storm events and their wave action and reduces insurance losses.

Describe the effects and benefits of the proposed project on private infrastructure and property threatened by erosion:
The Island is densely populated and many of the properties in our proposed nourishment area lie west of a shoreline whose erosion rate is between -4 and -6 feet per year. This project is what protects the property. Placing sand in this general area forms a prism of material that will be redistributed by nature. The local currents will spread the material along the shoreline, bringing the majority of it eventually North. The aerial beach will be transported by wind into the dune system and serve to fortify them. The submerged beach with act as wave attenuation and absorb the oceans energy that would otherwise be directed at the inland properties.

Describe the effects and benefits of the proposed project on natural resources threatened by erosion:
In the last decade the City of South Padre Island has grown their dune system in some areas as much as 100 feet seaward. This is due to a combination of plantings and the continued sand nourishment. The wind transports the sand into the dunes where it is held in place by the wind break created by the dune plants. Keeping enough sand in front of the dunes not only feeds them but keeps the waves from scarping them away.

By widening the beach, this project not only provides a larger area for tourists to enjoy, it provides a protection of nearby property (by virtue of the increased distance of the waves from hard structures), as well as more sand in this area of the beach/dune system that can potentially develop into dunes, which do provide a greater amount of protection of not only property, but of the beach. Furthermore, a wider beach and a stronger dune system provide a larger habitat for beach and dune flora and fauna, as well as for the endangered Kemps Ridley Sea Turtle and the threatened Piping Plover. By having a wider beach, the City also has a greater opportunity for the natural development of dunes in the project area. The north end of the City's beach does not have the substanial development and complex dune system that the south end of City has, due primarily to the width of the beach and the available amount of sand blowing in the beach/dune system.

Describe whether the proposed project will provide for the beneficial use of dredged material from the construction and maintenance of navigation inlets and channels of the State:
This BUDM material will come from the maintenance dredging performed as necessary by the USACE.

Describe how project costs are reasonable relative to benefits (i.e. number of acres of restored wetlands per dollar spent):In the 2013 Technical Report prepared by Taylor Engineering which evaluated the CEPRA Cycle 6 projects, had a benefit ratio of 9.1% for CEPRA project 1524, which indicates a good rate of return for the State. The total proposed costs are reasonable as related to the benefits. Tourists benefit from the quality of sand and the quality of the City's beach as do residents and business owners. Tourism is the City's most prominent income base. This last fiscal year (October 1, 2013- September 30, 2014) the City contributed to the State an estimated $5,312,974 in Hotel/Motel Tax dollars (6% of the 14.5% rate) and $9,581,560 in Sales Tax (6.25% of the 8.25% rate) revenue . The nearly $15 million in tax revenue sent to the State is a direct result of the City's beaches. Without the beaches- and without proper beach nourishment -these funds would cease to exist in the future

Project Permitting

List all required federal, state or local permits and leases that have been or will need to be acquired to undertake the proposed project. If an existing permit and/or lease, please indicate the expiration date.

Permit/Lease Type	Existing Permit/Lease? Y/N	Estimated Date of Receipt (mm/dd/yy) Ex: 02/02/17	If existing permit/lease, expiration date	Who will obtain permit?

Elaborate on any known permitting or regulatory issues that will need to be addressed:
The City of South Padre Island hold a beach nourishment permit that is good until 2021.

For proposed Gulf beach projects, describe how the proposed project will comply with the local beach and dune protection plan and floodplain administration:
The Local beach and dune protection plan, Erosion Response Plan, Beach Access Plan, even the City Code of Ordinances calls for erosion response as an integral part of the Islands functions. The City has documented the importance of BUDM and sees it as an investment they are ready to make anytime the option is available. Thanks to our excellent beach and dune management the City is always prepared to continue feeding her beaches.

This project is consistent with the City's beach/dune rules and considers sources of beach quality sand useful in replenishing the beach as is erodes. The City is continually monitoring the state of erosion on beaches. The City's commitment with the GLO includes providing 200 feet of sand to allow for public access. This project will help to provide the 200 feet and without this project the erosion rate and mean tide will continue to eliminate further portions of the beach. Without the additional sand the 200 feet of beach will be in jepordy and could result in property loss and inaccessability to the beach. In regards to floodplain administration, this project help prevent the negative impacts due to high tides and coastal flooding.

Project Phasing and Timeline

Is this project a single-phase project or one phase of a multi-phase project?

- (•) Single-phase project
- ( ) One phase of multi-phase project

Can the project or phases proposed in this application be completed between 9/1/2017 and 8/31/2019?

(•) Yes ( ) No

Describe the phases of the proposed project, if applicable, including a description of the phases that would extend into future funding cycles:
USACE Dredging of Channel
Engineering Design
BUDM Placement
Project Closeout

Describe potential delays due to permitting timelines, habitat issues, tourist season, endangered species provisions, or approval process timelines from local governing bodies:
Endangered Turtle nesting season would need to be observed and respected. Traditionally the USACE and the City have worked in tandom to ensure that the safety of animals and tourists as well as eaches access to Texas beaches is uninhibited by the BUDM Projects. The project schedule is heavily dependent upon turtle nesting season (May 15- Oct 1). If necessary this project can take place any other time of the year, however avoidance of high traffic seasons including Spring Break (the month of March) and the Winter Texans Season (Jan/Feb) is preferred. The ideal project window will be completed through OctoberDecember.

Does an adequate financial infrastructure exist to maintain the project and perform post-project monitoring?

(•) Yes ( ) No

If yes, please describe: The City of South Padre Island and GLO both are dedicated to the continued monitoring of this Island. The City will continue to provide funding for every other year of surveying and has even developed the capabilities to perform spot surveys throughout the year as needed. The City of South Padre Island posses reserve funds, a strong tax base, and budgeted funds for the project

Public Support/Other Supporting Documentation

Documentation of Funding
For each funding source committed in the funding section remember to attach to this PGS a signed funding commitment letter or other documentation on the funding organization's letterhead substantiating the commitment of funding and/or in-kind sources.

Documentation of Public Support
Attach to this application, letters of support you have received from potential co-sponsors, elected officials, affected jurisdictions, and stakeholders documenting support for the project.

Project Location Map
Attach to this application a map with sufficient detail to show the specific geographic location and boundary of the proposed project.

Locator Maps…

South Padre Island

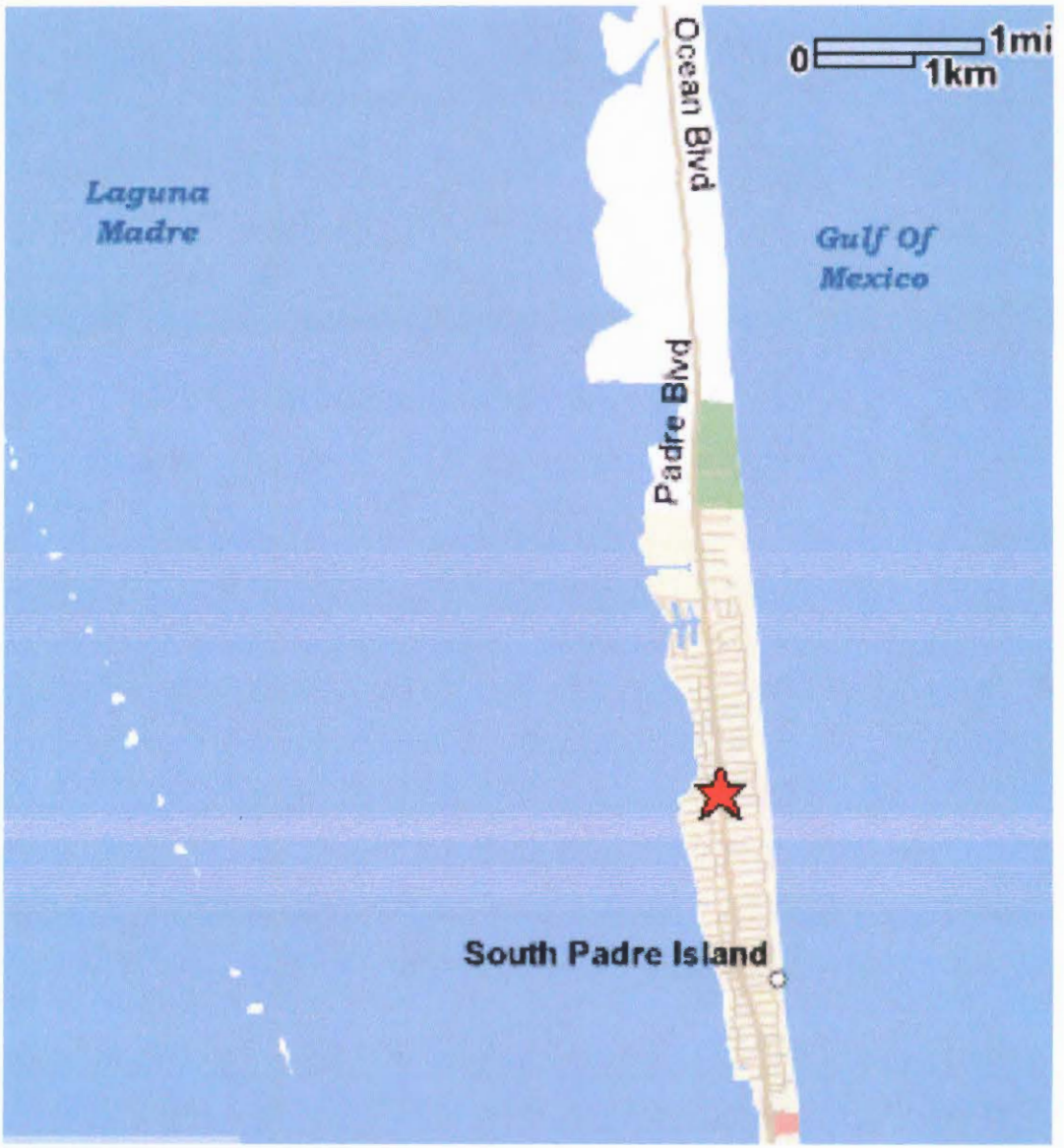
South Padre Island

Brazos Santiago Pass

12-12

South Padre Island, TX
Padre Blvd
Back Bay
100
Brownsville-Port Isabel Hwy
Image © 2007 DigitalGlobe
USGS
© 2007 Navteq
Streaming 100%
©2007 Google™
Eye alt 10.16 mi
Pointer 26°06'28.50" N 97°11'39.47" W elev 0 ft

12-13


Laguna
Madre
Gulf Of
Mexico
Ocean Blvd
Padre Blvd
0
1mi
1km
South Padre Island

12-14

Item No. 6

CITY OF SOUTH PADRE ISLAND
SHORELINE TASKFORCE
MEETING
AGENDA REQUEST FORM

MEETING DATE: 6/19/2017

NAME & TITLE: Brandon N. Hill, Shoreline Director

DEPARTMENT: Shoreline Department

ITEM

Discussion and possible action to recommend City Council select HDR for professional services in creating the South Padre Island Resilient Public Access and Education, Conservation, and Tourism Master Plan. (Hill)

ITEM BACKGROUND

Requests for Qualifications were sent out regarding the creation of the South Padre Island Resilient Public Access and Education, Conservation and Tourism Master Plan. Three Statements of Qualifications were received from HDR, Hanson and Mott Macdonald. A panel reviewed the statements and found HDR to be the best suited for this work.

BUDGET/FINANCIAL SUMMARY

The funding for this was partially secured through a Gulf of Mexico Alliance Grant. This grant awards the City of South Padre Island with $45,000 with a 2:1 match from the city of $22,500.

COMPREHENSIVE PLAN GOAL

LEGAL REVIEW

Sent to Legal:	YES: _____	NO: ___X_____
Approved by Legal:	YES: _____	NO: ___X_____

Comments:

RECOMMENDATIONS/COMMENTS

Staff supports the award of this project to HDR

Statement of Qualifications

South Padre Island Resilient Public Access and Education, Conservation, and Tourism Master Plan

June 1, 2017

COPY

May 31, 2017

Brandon Hill
Shoreline Management Dept. Director
City of South Padre
4601 Padre Boulevard
South Padre Island, TX 78597

RE: Request for Qualifications to Provide Professional Services for the South Padre Island Resilient Public Access and Education, Conservation, and Tourism Master Plan

Dear Mr. Hill:

HDR continues our long-time commitment to partner with the City of South Padre Island (City) in your role as a steward of a growing city located within a diverse coastal ecosystem. As the City expands in size and associated services, having a plan to manage that growth in a sustainable and resilient manner is critical. The HDR Team described herein has been carefully structured to support the City's planning effort by providing:

Resilient and Sustainable Planning Services. HDR's planning team understands the need for sustainable economic development that will leverage the truly unique natural resources of South Padre Island. Our approach for developing a Master Plan entails understanding and assessing previous recreational and management plans, identifying gaps in recreational resources and economic development, and creating an action plan that includes both quick wins and longer term investments. In addition, our team consists of specialists that are leaders in climatology, natural resources, renewable energy, LEED, commissioning, measurement and verification and community planning. This allows us to provide the City with solutions that are good for community and for our fragile coastal ecosystem.

Long History with City on Coastal Projects. HDR has been working with the City on beach and estuarine projects for over 20 years. Our coastal engineering group has assisted the City with shoreline management planning that included coordination with the U.S. Army Corps of Engineers to provide sand to the beach system through nourishment and nearshore berm projects. We have also performed annual monitoring surveys and associated shoreline change assessment reports since the early 2000's. HDR's environmental and regulatory staff has performed numerous wetland delineations within the City as well as assisting with regulatory approvals for multiple public and private projects, including the South Padre Island Birding and Nature Center. As a result, we have an intimate understanding of the coastal process within the City, sediment management challenges, access issues, and knowledge of the estuarine ecosystem.

HDR remains passionate about your projects and committed to partnering with you for continued success. If you have any questions or require any additional information, please contact Cameron Perry at 361-696-3352.

Sincerely,

HDR Engineering, Inc.

Arthur B. Colwell, PE
Corpus Christi Managing Principal

Cameron Perry, PE
Coastal Practice Lead

555 N. Carancahua, Suite 1600, Corpus Christi, TX 78401-0849
(361) 696-3300

Company Profile

HDR is a full-service engineering and architectural firm that has been providing planning and coastal services across Texas and the nation. We specialize in engineering, architecture, environmental and construction services. While we are most well-known for adding beauty and structure to communities through high performance buildings and smart infrastructure, we provide much more than that. We create an unshakable foundation for progress because our multidisciplinary teams also include scientists, economists, builders, analysts, and artists.

Coastal and Hydraulics Engineering

The ever changing environment of Texas' coastal zone demands specialized science and engineering services. While we have a long history working in Texas, we also work all around the United States. We have restored shoreline ecosystems along the Gulf of Mexico, designed channel navigation enhancements in New York Harbor, and designed harbor structures along the Pacific coastline. This allows us to share the lessons learned and bring back novel ideas to the City and their stakeholders.

Parks & Trails

HDR is a leader in the design of bicycle/pedestrian and open space projects. We have worked with prominent trail organizations across the country, including the Great Rivers Greenway, the Louisville Loop, Columbia Trails, Atlanta BeltLine Inc., and the PATH Foundation. Our streetscape experience includes pedestrian and bicycle trails, highly detailed small town streetscapes, ecological restoration, wayfinding and signage, stormwater management and lighting, and safety elements. We have created award-winning public open spaces that are functional, creative, and meaningful.

Urban Planning

HDR's community planning professionals focus on creating community, expanding mobility, and enhancing the natural environment. In taking this approach, we plan and design communities that encourage social equity, promote economic prosperity and enhance ecological integrity, while also creating a distinct and unique physical presence.

We plan and design development and redevelopment projects that include a diverse mix of uses — promoting pedestrian activity, expanding accessibility, reinvesting in our urban centers, and helping preserve valuable open space. Our projects are designed to foster a unique "sense of place" based not only on local traditions but also including the most advanced ideas from across the globe. Our goal is to help create sustainable development solutions that optimize quality of life for current and future residents, visitors and users.

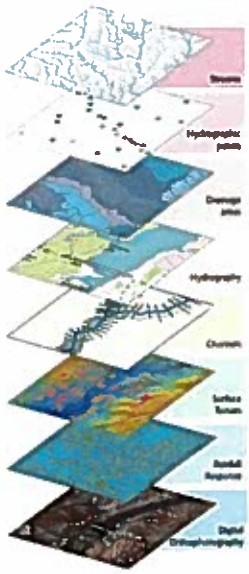
Our integrated planning services create true communities– places where people can live, work, play, and carry out all aspects of their lives. HDR approaches each project as a unique opportunity, creating collaborative teams that blend expertise in the areas of community, mobility and environment.

Master Planning

Our planning and design professionals work with communities to support their efforts from the origination of a concept through the design, construction and delivery of a finished project. We provide a full range of master planning services: due diligence needed to make initial decisions on the validity of a project; the visioning and outreach needed to help mold preliminary concepts; the regulatory expertise necessary to procure entitlements and permits; and the site planning, architecture, landscape architecture, engineering and design services involved in producing a comprehensive design of a project.

GIS

Not only do our skilled professionals use geographic information systems (GIS) as a mechanism to store and manage data, they also use it as an analytical tool to help you answer site- and project-specific questions. When implemented fully, we can provide you with a complete spatial reporting tool that you can continue to use and maintain. Our GIS professionals successfully collaborate with scientists and clients to develop meaningful work products. We have extensive proficiency in a variety of advanced statistical analyses and modeling techniques, using flexible designs to accommodate our clients' future needs and evolving requirements.



Sustainability

Sustainability is a core component of project delivery at HDR. We partner with you to determine integrated, sustainable solutions – always striving to provide more value on your projects. Our firm is consistently ranked among the top green design firms, and we have a history of delivering award-winning work.

Envision

HDR is on the forefront of our industry's emphasis on green rating systems. In 2012, we became a charter member of the Institute for Sustainable Infrastructure (ISI). ISI was founded by the American Council of Engineering Companies, the American Public Works Administration and the American Society of Civil Engineers to develop and maintain a rating system for civil infrastructure — similar to the well-known LEED® standards for vertical construction.

We are very proficient in using Envision, a flexible planning and guidance tool for sustainable infrastructure design. In fact, HDR was the first company to complete an Envision project verification, resulting in a Gold Level recognition. The tool is designed as a template for planning, designing, constructing and operating infrastructure projects that contribute to the reduction of our environmental footprint, while not diminishing our overall quality of life. With a very small, focused effort, we can conduct an Envision feasibility study that can help you develop your infrastructure investment to have longer-term viability, at a lower cost, with fewer negative impacts on the community. This process is also an excellent building block if you are interested in pursuing third-party Envision verification for your project.

ENVISION™

Quality

Our goal is to set the industry benchmark for excellence in services we provide to our clients. We accomplish this through work well done, staying true to purpose, and exercising discipline.

It is our policy to consistently provide professional services that satisfy statutory and regulatory requirements and that meet or exceed your expectations. To achieve quality in our work, we have developed a Quality Management System (QMS) based on the fundamental principles and guidelines set forth by the ISO 9001:2008 series of international standards for quality management.

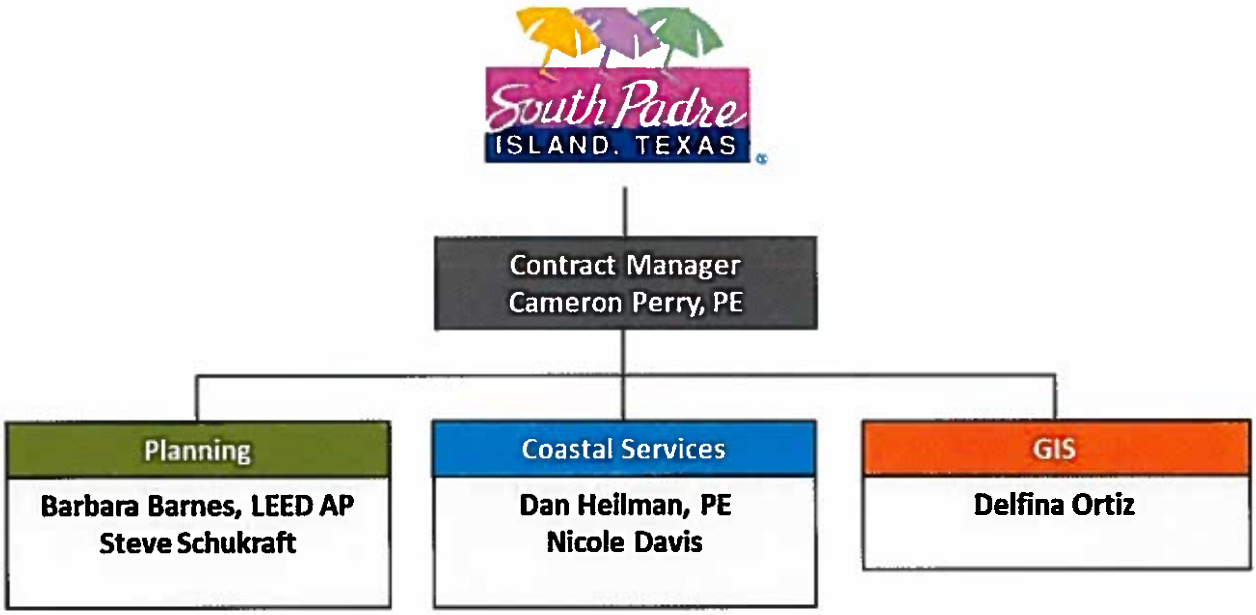
Our QMS provides an important framework for ensuring that we are reaching the highest levels of quality—both for you and for ourselves. We remain focused on continual opportunities for improvement throughout our daily activities to achieve client satisfaction and meet performance expectations. The QMS includes programs, policies, and business processes, and has four key elements:

- Management Responsibility. Management actively promotes quality in our business activities and defines responsibilities for maintaining our focus on quality.
- Resource Management. Resources are trained, available, and committed to providing quality services.
- Professional Service Delivery. Processes and procedures are in place that promote quality in the delivery of our products and services.
- Measurement, Analysis, and Improvement. Continual improvement is achieved through performance measurement and identification of areas for improvement.

Key Staff

Key Staff

For your project, we have customized a team to leverage the knowledge and experience of our technical resources to effectively meet your goals. Most of our team members have a long history with our organization, creating a stable leadership core to guide long-term strategies and daily operations. We also have tremendous national resources available to assist local staff, as requested, to meet your needs.



M. Cameron Perry, PE

Coastal Practice Lead, Professional Associate

EDUCATION
Bachelor of Science, Maritime Systems Engineering, Texas A & M Univ Galveston, 1996

REGISTRATIONS
Professional Engineer, Florida, United States, No. 60213 Issued: 06/23/2003, Expires: 02/28/2019

Professional Engineer, Texas, United States, No. 94056 Issued: 06/24/2004, Expires: 03/31/2018

PROFESSIONAL MEMBERSHIPS
American Shore and Beach Preservation Association, Treasurer, Board of Directors

American Shore and Beach Preservation Association, Texas Chapter, Board of Directors

INDUSTRY TENURE
19 years

HDR TENURE
13 years

OFFICE LOCATION
Corpus Christi, TX

AWARDS
ASBPA Member of the Year, 2006

Corpus Christi Chamber of Commerce Top 40 Under 40, 2011

Mr. Perry has performed various coastal engineering services for both public and private clients, including computer models, evaluation of coastal processes, and applied design. Projects have included beach nourishment, sediment management, inlet dredging, and breakwater construction located throughout Texas, Florida, and the Caribbean. Mr. Perry has also been involved in all project components such as project management, planning, design, estimating, and construction administration.

RELEVANT EXPERIENCE

Brazoria County, Blue Water Highway Construction Management and Inspection, *Surfside Beach, TX*
Construction management services to support the construction of CR257 Bluewater Highway Road repair and shoreline stabilization.
Role: Deputy Project Manager

Brownsville Navigation District, Cargo Dock 16, *Brownsville, TX*
Design for dredging and shoreline protection associated with design of proposed cargo dock. Developed construction drawings and specifications.
Role: Project Engineer

Brownsville Navigation District, Oil Dock 6 Design, *Brownsville, TX*
Design for dredging and shoreline protection associated with design of Oil Dock 6. Developed construction drawings and specifications.
Role: Project Engineer

Cameron County, Derry Waterfront Park Shoreline Protection, *Port Isabel, TX*
Perform an alternatives analysis, preliminary design drawings, and permitting for living shoreline protection at Derry Park, Port Isabel, TX.
Role: Project Manager

City of South Padre Island Beneficial Use of Dredged Material Beach Nourishment Design and Monitoring, *South Padre Island, TX*
Developed beach nourishment template in coordination with U.S. Army Corps of Engineers Galveston District. Performed annual monitoring surveys and shoreline change analyses since 2004.
Role: Project Manager

Coastal Bend Bays & Estuaries Program, Matagorda Island Adaptive Management Plan, *Austwell, TX*
Developed Adaptive Management Plan for improving water flow and marsh restoration within 15,000 acre Matagorda Island Wildlife Refuge.
Role: Project Manager

Coastal Bend Bays & Estuaries Program, Matagorda Island AMP- Phase 3, *Matagorda, TX*
Design, bidding assistance, and limited construction administration for culvert and berm removal Action Items described in previously developed Adaptive Management Plan for Matagorda Island Wildlife Refuge, TX.
Role: Project Manager

Coastal Bend Bays & Estuaries Program, Portland Causeway Marsh Restoration, Nueces Bay, *Portland, TX*
Developed Conceptual Master Plan and permitting of 150 acre low marsh complex. Developed plans and specifications for marsh comprised of terraces/berms and hydraulically placed mounds. Also designed armored outer berm for shoreline protection to marsh area. Provided bidding services and construction administration for all three phases of the project.
Role: Project Manager

NOAA Restoration Center, Swift Tract Living Shoreline, *Mobile Bay, AL*
Development of living shoreline features along approximately (1.6) miles of shoreline to protect existing marsh habitat. Project consists of low, intertidal breakwaters that will serve as oyster habitat and break up incoming wave energy. HDR performed data collection, habitat mapping, design, coastal modeling, plan development and bidding and construction phase services.
Role: QC/QC

NOAA Restoration Center, Pensacola Bay Living Shoreline, *Pensacola Bay, FL*
Design of marsh creation and low crested oyster reef breakwaters as living shoreline features within Pensacola Bay. HDR performed data collection, habitat mapping, and conceptual design.
Role: Senior Coastal Engineer

Texas General Land Office, Arturo Galvan Coastal Park Living Shoreline, *Port Isabel, TX*
Final design and development of construction documents for low crested breakwater and marsh creation as part of a living shoreline project. Services also included bidding assistance and construction administration.
Role: Project Manager

Texas General Land Office, Beach Nourishment Preliminary Design, *South Padre Island, TX*
Preliminary design for dredging offshore borrow sources and beach placement at South Padre Island. Project also includes USACE permitting and Section 7 consultations.
Role: Project Manager

Texas General Land Office, Beneficial Use of Dredged Material Survey and Construction Oversight, *South Padre Island, TX*
Pre- and post-construction surveying of project area. Construction observation and volumetric calculations of placed material.
Role: Project Manager

U.S. Army Corps of Engineers- Galveston District, Recovery IDIQ MATOC Design Build for USACE, Galveston District, Houston-Galveston Navigation Channel
Design of repairs and new rock shoreline protection at Bolivar Marsh, Evia Island, and Goat Island along the Houston Ship Channel as part of a Design Build project led by ECC.
Role: Project Engineer

Barbara Barnes, RLA, LEED AP

Section Manager – Ecosystem Restoration Services

EDUCATION
Bachelor of Architecture, Landscape Architecture, University of Washington, 2002

Bachelor of Arts, History, University of Washington, 2002

REGISTRATIONS
Certificate of Restoration Ecology, University of Washington, 2002

LEED Accredited Professional, U.S. National Registration

Registered Landscape Architect: New York Reg. No. 002163

PROFESSIONAL MEMBERSHIPS
American Society of Landscape Architects

INDUSTRY TENURE
15 years

HDR TENURE
3 years

OFFICE LOCATION
Mahwah, NJ

Mrs. Barnes is a registered Landscape Architect with more than 10 years experience and has focused on sustainable urban landscapes in the public realm. She has had the unique experience of seeing dozens of multi-million dollar projects through from design and permitting onto construction and maintenance. Having in-depth experience in all project phases enriches her work and helps her to anticipate scheduling, construction, permitting, and maintenance concerns that may impact a project's budget or the desired outcome. Currently, as part of an HDR team, Barbara is working with the New York City Department of Environmental Protection, the School Construction Authority, Department of Education and Department of Parks and Recreation Recreation to integrate stormwater Best Management Practices, such as bioswales, permeable pavement, and detention and infiltration techniques into City school yards and parks in Queens, NY.

Barbara has conducted seminars on Green Infrastructure, Wetland Restoration in Brownfields, and Urban Reforestation for the New York Chapter of the American Society of Landscape Architects, the New Jersey Brownfield Coalition, and NYC Parks and Recreation.

RELEVANT EXPERIENCE

NYC Department of Parks and Recreation (NYCDPR), Gerritsen Inlet Landscape Restoration, *Brooklyn, NY*
NYC Department of Transportation initiated the reconstruction of seven vehicular bridges and their approaches along the Belt Parkway to improve public safety and comply with federal and state standards. Impacts from construction resulted in tree removals and necessitated tree restitution per City codes. NYC Parks, engaged Hargreaves Associates and HDR, to complete an ecological assessment and site analysis of the Gerritsen Inlet bridge approaches to facilitate tree replanting efforts. Ms. Barnes led HDR's completion of shoreline and wetland delineations and soil sampling efforts. The soil sampling results were analyzed for vegetation inhibiting properties, including soil salinity, texture, and micro and macro nutrients. A report was generated that summarized the sampling results, recommended soil amendments, and potential species to avoid planting due to likelihood of failure as a result of soil conditions.
Role: Project Manager

New York City Department of Parks and Recreation (NYCDPR) -Fairview Park, *Staten Island, NY*
Fairview Park will be a new 23-acre park with active and passive recreation areas, including equestrian trails. HDR will provide design services to assist in the development of the final master plan and construction documents. The goal of the stormwater plan will be to retain all stormwater on-site through infiltration and detention techniques that work with the overall design and work seamlessly with the aesthetics of the future park.
Role: Green Infrastructure Lead

New York City Department of Parks and Recreation (NYCDPR), Brigham Park, *Brooklyn, NY*
HDR has been retained by Hargreaves Associates to assist in the design and permitting of a waterfront neighborhood park located on a vacant lot in Sheepshead Bay, Brooklyn. Mrs. Barnes worked as the lead environmental permitting specialist for all required permits, including state and city permitting for tidal wetland adjacent area impacts and work within an erosion hazard area. The project goal includes transforming the site into a new passive and active recreation area through the installation of walkways, benches, and playground equipment. Raising the site to be above the FEMA Base Flood Elevation is also underway through HDR's revetment design and is a strategic coordination component in the civil work.
Role: Regulatory Specialist

National Parks Service, National Capital Levee and Canal Risk Management, *Washington, DC*
NPS consolidated four projects. #1 involved developing strategies for managing flood risks for the National Capital Region. #2 involved developing strategies for improving levees and flood planning for the National Capital Parks-East. #3 involved inspecting and assessing the existing conditions of the Foundry Branch Wasteweir system. #4 involved the predesign of a remote instrumentation and monitoring system for certain key locations within the lower 23 miles of the Chesapeake and Ohio Canal..
Role: Planner

New York City Department of Parks and Recreation (NYCDPR), Pier 42, *Manhattan, NY*
HDR provided design services to Mathews Neilson Landscape Architects to assist in the development of a master plan for the reconstruction of Pier 42, located between the East River Waterfront Esplanade and the East River Park in lower Manhattan. Pier 42, consisting of both a warehouse on concrete piles and an historic granite block bulkhead, has long been a blight to lower Manhattan. This site is a crucial link to the development of the Manhattan greenway and offers substantial open space, shoreline access and waterfront views suitable for a variety of public purposes. The master plan was created based on a needs assessment, collaborative community-based design meetings, and information gained from an engineering site assessment study. The selected option is currently moving forward into Phase 1 design. Mrs. Barnes worked as the lead environmental permitting specialist for all federal, state and city permitting.
Role: Regulatory Specialist

Steve Schukraft

Planning Section Manager

EDUCATION
Master City Planning, University of Virginia, 1992

Bachelor of Arts, Political Science/Government, University of South Florida, 1985

REGISTRATIONS
Certified Charrette Planner, U.S. National Registration

ISI Envision Sustainability Professional, U.S. National Registration,

PROFESSIONAL MEMBERSHIPS
American Planning Association

Congress for New Urbanism

National Charrette Institute

INDUSTRY TENURE
32 years

HDR TENURE
10 years

OFFICE LOCATION
Tampa, FL

Mr. Schukraft is an accomplished city planner with more than 30 years of experience helping communities improve livability, promote economic development, and encourage more sustainable patterns of growth and development. He has managed a wide range of revitalization, urban design, and transit-oriented development projects; led dozens of public planning charrettes and workshops; and designed and managed large-scale public visioning, goal setting and planning initiatives.

RELEVANT EXPERIENCE

Galveston Planning and Development Regulation, *Galveston, TX*
The City of Galveston Texas has engaged HDR to assist in an ambitious planning program and complete an overhaul of the community's land development regulations. Through an intensive collaborative process the HDR team is helping the City update its Comprehensive Plan; complete specialized plans addressing such topics as coastal management resilience sustainability and preservation and rewriting zoning and land use.
Role: Project Manager

Livable Centers and Commuter Rail Station Study, *Waller, TX*
HDR was selected for a Livable Center study which will result in a plan and implementation strategy that addresses the Livable Centers goals of the Houston-Galveston Area Council. It will also include the identification of transportation improvements that could leverage private investment and improve the quality of life in the project area. The purpose of the Livable Centers program is to improve access while reducing the need for mobility by single-occupancy vehicles. Through a concentration and a mix of land uses livable centers allow for greater accessibility by a variety of transportation modes including walking bicycling and public transit.
Role: Project Manager

Alternative Analysis for the Austin North Central Corridor, *Austin, TX*
HDR is performing an Alternatives Analysis (AA) to evaluate potential transportation improvements within the Central Texas region. The purpose of this AA is to advance the locally preferred alternative (LPA) including project phasing such as a minimum operable segment into FTA New Starts or Small Starts funding program. Integral to this study is a review and refinement of the Capital Area Metropolitan Planning Organization (CAMPO) travel demand model.
Role: Planner

Gulfport West Side Community Plan, *Gulfport, MS*
HDR completed an Infill Community Plan for the West Side neighborhood a community damaged during Hurricane Katrina. HDR worked closely with residents and representatives of the West Side Civic Association conducting a tour and several workshops to clarify goals and test mapping strategies. The final adopted Plan is comprised of three maps: a Regulating Plan a Thoroughfare Plan and a Special Requirements and Options Plan and text detailing requirements for new development and redevelopment.
Role: Project Manager

Key Largo Livable CommuniKeys Master Plan
The Key Largo Livable CommuniKey's Program included the evaluation and preparation of an island-wide comprehensive and urban design plan for MM 97 to MM 107 in the Florida Keys. The project included analysis and recommendations relating to redevelopment trends protection of natural resources housing alternatives and the development of design guidelines. An extensive community participation program was also created that included newsletters community survey and a community design charrette.
Role: Project Manager

Isle Royale National Park Planning Study to Replace the Administrative Complex, *Lake Michigan, MI*
HDR developed a project program study for the replacement of the Isle Royale National Park Administrative complex. The project entails replacing the current headquarters complex and establishing an orientation and debarkation center to direct tourists and park visitors to Isle Royale NP. Working in collaboration with the National Park Service and key stakeholders the HDR Team collected organized and analyzed the relevant background data and support materials necessary to underpin the planning effort. To initiate the planning process HDR facilitated a Visioning Workshop and developed program requirements for the project. Specific elements included a visitor center administration space a maintenance facility space for debarkation operations and dry storage. The HDR Team will then conduct a 3-day planning and Master Planning Design Charrette an intensive collaborative exercise to address the complex planning and design problems associated with the site. The outcome of the Design Charrette and ensuing refinement will be summarized into a Charrette Summary Report.
Role: Project Manager

Dunedin Land Development Regulations Review, *Dunedin, FL*
HDR was engaged to review Dunedin's Land Development Regulations and identify ways to improve their effectiveness. HDR's recommendations focused heavily on promoting appropriately-scaled infill and redevelopment in traditional neighborhoods and along older commercial corridors have helped the City set priorities for code changes and better achieve the intentions outlined in the City's Community Vision document produced by HDR in 2005.
Role: Project Manager

South Omaha Development Project, *Omaha, NE*
The South Omaha Development Project was the third study of its kind completed by HDR for the Greater Omaha Chamber. Supported by HDR's Public Involvement Group, the planning process compiled the ideas of more than 1,500 of South Omaha's residents, employees and business owners (many of them Spanish speaking) to establish an economic, community and physical development framework for the area.
Role: Planner

Daniel Heilman

Coastal Business Class Leader

EDUCATION
Master of Science, Ocean Engineering, Texas A&M Un College Station, 1995

Bachelor of Science, Ocean Engineering, Texas A & M Univ Galveston, 1993

REGISTRATIONS
National Council of Examiners for Engineering and Surveying (NCEES), United States National Registration, No. 20365 Issued: 08/23/2001, Expires: 08/31/2017

Professional Engineer, Alaska, United States, No. CE13183 Issued: 02/14/2012, Expires: 12/31/2017

Professional Engineer, Louisiana, United States, No. 29755 Issued: 10/16/2001, Expires: 03/31/2018

Professional Engineer, Mississippi, United States, No. 19087 Issued: 05/01/2009, Expires: 12/31/2017

Professional Engineer, New York, United States, No. 093545 Issued: 03/04/2014, Expires: 02/28/2019

Professional Engineer, Texas, United States, No. 86936 Issued: 07/21/2000, Expires: 06/30/2017

INDUSTRY TENURE
23 years

HDR TENURE
20 years

OFFICE LOCATION
Corpus Christi, TX

Mr. Heilman's expertise is in analysis and design of coastal projects such as beach nourishment, shoreline protection, and habitat restoration. His experience includes analysis of complex coastal processes, applied design and preparation of plans and specifications. Project experience also includes dredging, slope protection, wave and circulation modeling and design of scour counter-measures.

RELEVANT EXPERIENCE

Alaska Dept of Trans & Public Facilities, St George Harbor Breakwater and Dredging Improvements, *St. George (ANV/ANVSA), AK*
Data collection and preliminary design of harbor improvements at St. George, Alaska. Analysis included wave modeling, assessment of harbor resonance, breakwater and dredging design, and extensive public coordination.
Role: Project Manager

Brownsville Navigation District, Sedimentation Study for the Brownsville Entrance Channel, *Brownsville, TX*
Technical review of internal sedimentation/shoaling analysis for ongoing feasibility study of expansion of the Brownsville Ship Channel.
Role: QC/Technical Review

Brownsville Navigation District, Shoreline Impact Analysis for Channel Widening, *Brownsville, TX*
Shoreline impact analysis of proposed federal widening/deepening of the Brownsville Ship Channel. Analysis included wave numerical modeling, calculation of longshore sediment transport, and development of sediment budget.
Role: QC/Technical Review

Cameron County, Derry Waterfront Park Shoreline Protection, *Port Isabel, TX*
Perform an alternatives analysis, preliminary design drawings, and permitting for shoreline protection at Derry Park, Port Isabel, TX.
Role: QC / Technical Review

City of Corpus Christi, TX, FEMA Firm Appeal, *Corpus Christi, TX*
Assited the City of Corpus Christi with assessment of new base flood elevations proposed by FEMA for downtown bayfront and appeal for revisions to preliminary flood insurance rate maps.
Role: Project Manager

City of Galveston, Galveston Planning & Development Regulations, *Galveston, TX*
The City of Galveston, Texas has engaged HDR to assist in an ambitious planning program and complete an overhaul of the community's land development regulations. Through an intensive, collaborative process the HDR team is helping the City update its Comprehensive Plan; complete specialized plans addressing such topics as coastal management, resilience, sustainability and preservation and rewriting zoning and land use.
Role: Coastal Engineer

Coastal Bend Bays & Estuaries Program, Matagorda Island AMP- Phase 3, *Matagorda, TX*
Design, bidding assistance, and limited construction administration for culvert and berm removal Action Items described in previously developed Adaptive Management Plan for Matagorda Island Wildlife Refuge, TX.
Role: QC/Technical Review

CPRA, Mid-Barataria Diversion Complex Project, *LA*
HDR was selected to provide management and design services for the Mid-Barataria Diversion Complex Project (MBD). The primary design feature is a controlled, gravity flow sediment diversion structure that would convey sediment laden water through a new conveyance channel across the fastlands contained between the Mississippi River and Tributaries (MR&T) levee at the Mississippi River and the non-Federal hurricane levee.
Role: QC/Technical Review

ECC, Recovery IDIQ MATOC Design Build for USACE, Galveston District, Houston-Galveston Navigation Channel, *Galveston, TX*
HDR's coastal engineers designed embankment repairs and graded riprap shoreline protection at multiple sites along the Houston Galveston Navigable Ship Channel. Dredging was performed to help establish circulation and enhance previously constructed marsh, and a new 288 acre mitigation marsh, which is funded by ARRA, was designed. HDR environmental scientists assisted with regulatory approvals to acquire offshore borrow materials for construction of new marsh at Goat Island, Evia Island Bird Rookery, and Bolivar Marsh. Numerical modeling was also provided through state of the art design using numerical modeling of waves, surge, passing vessels, circulation and sediment transport.
Role: Project Manager (Construction Phase) and Lead Coastal Engineer

Galveston County, Comprehensive Erosion Response Plan, Galveston County, TX
Development of comprehensive erosion response plan for Galveston County's Gulf beaches.
Role: Lead Coastal Engineer

Texas General Land Office, South Padre Island Sand Search, *South Padre Island, TX*
Technical review of HDR investigation of offshore sand sources for Gulf beach nourishment.
Role: Technical Review

Town of South Padre Island / Texas General Land Office, Beach Nourishment, South Padre Island, TX
Design of beach fill along Gulf shoreline through beneficial use of sand dredged from Brazos Santiago Pass (1997, 1999, 2000, 2002, 2004).
Role: Project Manager

Investigation at Mansfield Pass, Willacy County, TX
Assistance with study of coastal processes and erosion response along Gulf beach on Padre Island at Mansfield Pass.
Role: Project Manager

Nicole Davis

Environmental Biologist

EDUCATION
Master of Science, Biology, Texas A&M University – Corpus Christi, 2011

Bachelor of Science, Biology, University of Texas – San Antonio, 2007

REGISTRATIONS
Wetland Delineation Certification.

PROFESSIONAL MEMBERSHIPS
Society of Wetland Scientists.

INDUSTRY TENURE
8 years

HDR TENURE
1 years

OFFICE LOCATION
Corpus Christi, TX

Ms. Davis has experience in biological and environmental sciences including U.S. Army Corps of Engineers (USACE) Section 404/ Section 10 permitting, surveying for the presence of threatened and endangered species and associated habitats, and development of monitoring and adaptive management plans for marsh restoration. She has successfully obtained USACE permits for marine projects related to beach nourishment, marsh restoration, and the protection/creation of bird rookery islands. She has expertise in various project components such as habitat assessments, wetland delineations, oyster and seagrass surveys, nationwide and individual permits, and threatened and endangered species.

RELEVANT EXPERIENCE

Texas General Land Office and Texas Parks and Wildlife Department, Monitoring and Adaptive Management Plan, *Galveston, TX*
Developed a monitoring and adaptive management plan for Galveston Island State Park Marsh Restoration Project in Carancahua Cove per the requirements for projects funded by the National Fish and Wildlife Foundation (NFWF) - Gulf Environmental Benefit Fund. The plan included performance criteria, monitoring objectives, and recommended corrective actions for the restoration and protection of a marsh complex and associated breakwaters.
Role: Environmental Biologist

Port of Corpus Christi, Oil Dock 18 USACE Section 404/Section 10 Individual Permit, *Corpus Christi, TX*
Develop Section 404/Section 10 individual permit application for construction of a new oil dock on the Corpus Christi Ship Channel, including a wetland delineation report and an oyster and seagrass report. Final design of the oil dock is still underway.
Role: Environmental Biologist

Galveston Bay Foundation, Dickinson Bay Island II, USACE Section 404/Section 10 Nationwide Permit 27, *Galveston County, TX*
Develop Section 404/ Section 10 Nationwide Permit (NWP) 27 application for development of a new bird rookery island in Dickinson Bay, Galveston County, TX. The permitting process included continuous coordination with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife, and National Oceanic and Atmospheric Administration.
Role: Environmental Biologist

Galveston County, Bolivar Beach Nourishment, USACE Section 404/Section 10 Extension of Time and Permit Amendment, *Galveston, TX*
Develop Extension of Time (EOT) and Permit Amendment request for beach nourishment project on Bolivar Peninsula to include a new offshore sand borrow area. Additional responsibilities included a one-day training of contractor personnel on potential Threatened and Endangered Species within the project area. Authorization of EOT and amendment area still pending.
Role: Environmental Biologist

Union Pacific Railroad (UPRR), Angleton SIT Yard Expansion, USACE Section 404 Individual Permit, *Angleton, TX*
Develop Section 404 individual permit application for the expansion of the Angleton SIT Yard. The permitting process included hydrogeomorphic model analysis for impacts to forested and emergent wetlands to determine mitigation credits as part of a Compensatory Mitigation Plan.
Role: Environmental Biologist

Texas – New Mexico Power (TNMP) and Oncor, Golden-Cheeked Warbler and Black-Capped Vireo Monitoring, *Meridian, TX*
Conduct biological monitoring for the presence of golden-cheeked warblers and blacked-capped vireos as part of Section 10 permit requirements (Oncor) and implementation of avoidance and minimization measures to avoid issuance of a Section 10 permit (TNMP).
Role: Environmental Biologist

The Nature Conservancy, Mid-Coast Rookery Island, *San Antonio Bay, TX*
Develop Section 404/ Section 10 Nationwide Permit (NWP) 27 application for development of a new bird rookery island in San Antonio Bay, TX. The permitting process included significant coordination with the Texas Parks & Wildlife Department.
Role: Environmental Biologist

Port of Brownsville, Spool Base Assessment, *Brownsville, TX*
HDR performed habitat characterization and associated regulatory consulting services associated with development of a proposed spool base facility located within the Port of Brownsville, Texas. Included is a Section 10/404 permit application for submittal to the U.S. Army Corps of Engineers (USACE), including conceptual level design. Our client has subsequently asked us to develop conceptual design.
Role: Environmental Biologist

North Padre Realty, Wetland Delineation and Permitting, *Corpus Christi, TX*
Provide regulatory services associated with assisting North Padre Realty in seeking an approved jurisdictional determination (AJD) from the U.S. Army Corps of Engineers (USACE) and permits to develop an approximate 5.61 acre site on North Padre Island Nueces County Texas. Perform a wetland delineation of 3 Tracts totaling approximately 5.61 acres and submit a Nationwide Permit (NWP) request to begin development on 3 tracts.
Role: Environmental Biologist

Corpus Christi Metropolitan Planning Organization, Regional Parkway PEL, *Corpus Christi, TX*
HDR is serving as prime consultant in work associated with a Planning and Environmental Linkages (PEL) Study to identify alignment alternatives and environmental constraints analyses for approximately 17 miles of a new location corridor which extends from SH 286 to the Rodd Field Rd. Extension and terminating at PR 22 on Padre Island. The report will be instrumental to the city of Corpus Christi as they plan for future transportation facilities and update their Master Thoroughfare Plan.
Role: Environmental Biologist

Delfina Ortiz

CADD/GIS Technician

EDUCATION
ITT Technical Institute
Associates of Applied Science Computer Aided Draft, , March 2004

Del Mar College
Geographic Information Systems (GIS) –Level I – Marketable Skills Award
May 2015

Del Mar College
Geographic Information Systems (GIS)– Level II – Marketable Skills Award
May 2015

Autodesk (ATC)
Revit Structure 2014
Certificate No. 1JBW0JBWJO
June 2015

PROFESSIONAL MEMBERSHIPS

AUGI Autodesk User Group International since 2004

INDUSTRY TENURE
13 years

HDR TENURE
4 years

OFFICE LOCATION
Corpus Christi, TX

Delfina is a CADD Technician with 12 years of experience. Since she started her career at HDR, she has been a pioneer in the use of CAD and in the development of project CAD standards that have become implemented office wide. Delfina has also developed new and innovative GIS interfaces to store and display information on a variety of projects.

RELEVANT EXPERIENCE

Union Pacific Railroad, Port Allen Interchange *Baton Rouge, LA*
Figures for Delineation Report with GIS data. Created data collection file for field work. Processed field collection data along with geotagged photos. Created geospatial database for Delineation figures. Geospatial analysis and editing performed for end user support. Correlated data for use with Microstation.
Role: CADD/GIS Technician

City of Corpus Christi, Oso Creek FEMA Assessment *Corpus Christi, TX*
Provided technical expertise in the use of GIS automated mapping. Spatial analysis based off of centerline of Oso Creek to identify land uses and floodplain area.
Role: CADD/GIS Technician

Port of Corpus Christi, Channel Business Plan *Corpus Christi, TX*
Developed a database of Port assets and associated information such as regulatory status, area, leases, etc. Utilized of GIS mapping to display and detail database information.
Role: CADD/GIS Technician

Chemtex, Jumbo Dock Terminal Marine Terminal, *Corpus Christi, TX*
Performed marine terminal consulting, engineering, design and periodic construction observation activities. Evaluated the process(es) and determined what is required to provide the utilities, hoses, etc. for operations.
Role: CADD/GIS Technician

City of Corpus Christi, Kinney Street Bridge-Erosion, *Corpus Christi, TX*
The city has requested HDR's services to assess and design repairs to a storm water line and the surrounding eroded areas, and to create a system to better channel rainfall and minimize erosion along that portion of the bank. HDR will also provide surveying and regulatory/permitting services as well as bid phase, construction administration, and construction observation services..
Role: CADD/GIS Technician

Valero Refining Co., West Barge Dock Repairs, *Corpus Christi, TX*
HDR provided emergency repairs for bulkhead failure at a bulk liquid barge terminal. On-site coordination with the owner and contractor were required to install temporary restraints and to reroute traffic to an adjacent dock which was undergoing significant upgrades at the time. Repairs included 400 feet of sheet pile bulkhead with reinforced concrete cap, new anchor system, fender upgrades, and associated site civil. Construction was completed mid-2015.
Role: CADD/GIS Technician

Port of Corpus Christi, Tule Lake Final Design, *Corpus Christi, TX*
Perform an examination of the project site and provide a concept study and report associated with the development of Tule Lake Oil Dock located in PCCA's Tule Lake Turning Basin. The concept study and report phase will include assessment of the facility and development of conceptual level construction options and opinions of costs to help the Port establish funding and develop preliminary construction timelines.
Role: CADD/GIS Technician

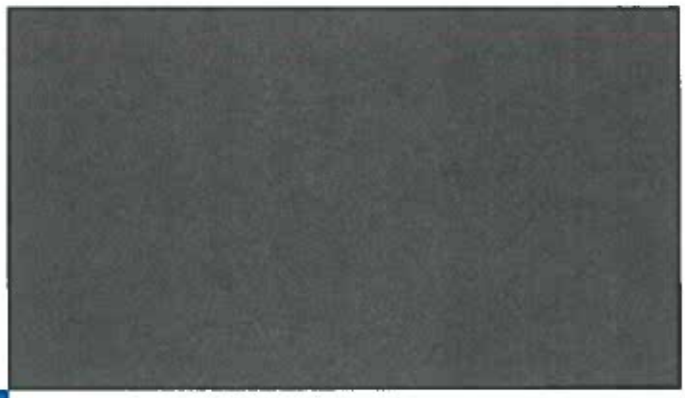
Port of Corpus Christi, Tule Lake Final Design, *Corpus Christi, TX*
Perform an examination of the project site and provide a concept study and report associated with the development of Tule Lake Oil Dock located in PCCA's Tule Lake Turning Basin. The concept study and report phase will include assessment of the facility and development of conceptual level construction options and opinions of costs to help the Port establish funding and develop preliminary construction timelines.
Role: CADD/GIS Technician

Axiall Corporation, Axiall Site Clearing and DMPA Design, *Pasadena, TX*
HDR provided Axiall corporation with a wetland delineation study of an approximately 50 acre property located on the southern border of Axiall's Pasadena Facility. In addition HDR conducted conceptual layouts for a dredge material placement area (DMPA) on the site. Additional services included an archeological survey and report for the site and assistance in obtaining a construction permit.
Role: CADD/GIS Technician

City of Chattanooga, 21st Century Waterfront Conceptual Design of Repairs, *Chattanooga, TN*
HDR provided two conceptual level design repair options for a bulkhead retaining wall to support a terrace beam waterfront for the City of Chattanooga. Additional services included a conceptual phase report and Opinion of Probable Project Cost for the two concepts developed. HDR is currently providing Bid on Construction Phase services.
Role: CAD/GIS Technician

Intercontinental Terminals Company, LLC, ITC Dock 1 Pile Repair Design, *Deer Park, TX*
HDR provided final design services to ITC for Phase I of a multi-year pile repair project to restore structural capacity to steel pipe piles supporting Ship Dock 1. Pile repairs consisted of a prefabricated steel pipe sleeve assembly, FRP jackets, and a structural connection to the pile caps. In addition HDR provided repair design for the concrete pile caps and spalled concrete deck panels.
Role: CADD/GIS Technician

Triton Marine Construction Corp., Repairs to Pier 4, Philadelphia Naval Business Center (PNBC) - Design Build, *Philadelphia, PA*
This project will provide critical docking facility needs associated with CV-67 and other similar inactive aircraft carriers. This design build project consists of replacing various pier sections providing vehicle and crane access to the ships berthed at the facility. Platforms will be designed to support a 240 Ton mobile crane and a 90 ton mobile crane. A new steel sheet pile bulkhead will be installed and all existing mooring fixtures upgraded including foundations.
Role: CADD/GIS Technician

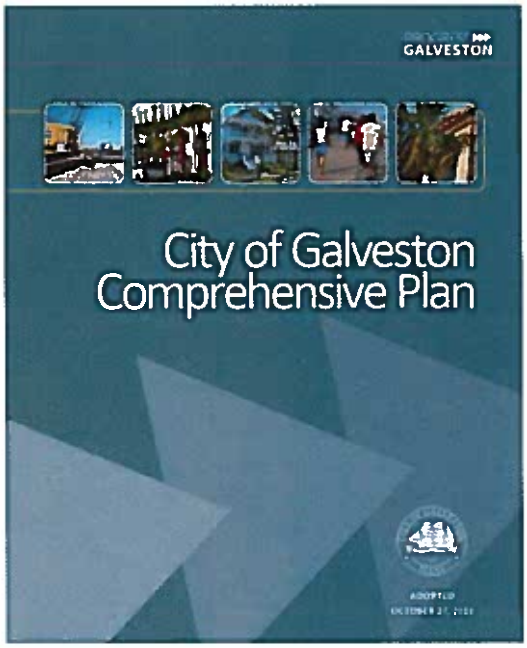


Project Experience

The following project descriptions demonstrate innovative solutions that will be applied to your project's challenges. In these case studies, we employed cost-effective strategies, similar to those required in your scope of work. These projects represent successful partnerships with our clients – reaching performance goals and delivering within the required schedule.

PROGRESS GALVESTON PLANNING

City of Galveston | Galveston, TX



Highlights

- Comprehensive Plan overhaul
- Erosion Response Plan development
- Hurricane disaster funding
- Ordinance review

Services

- Planning
- Public outreach
- Coastal engineering

For More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

The City of Galveston Texas selected HDR for an ambitious planning project designed to ensure public and private actions align to improve the community's livability sustainability and competitiveness. This planning effort known as Progress Galveston was organized in three parts: 1) completing an update to the City's Comprehensive Plan; 2) preparing a series of Specialized Plans addressing important issues such as historic preservation mobility parks and recreation disaster recovery and coastal management; and 3) rewriting and streamlining ordinances and regulations affecting the development of private property.

Comprehensive Plan: The City finalized an update to the Comprehensive Plan (Comp Plan) that will help guide the City for years to come. As a long-term guide for the community the Comp Plan will help City leaders make decisions about the location scale and quality of new development; the improvement of neighborhoods and commercial corridors; the revitalization of downtown and surrounding historic areas; and the future of the City's parks public spaces beaches and natural areas.

Specialized Plans: As part of the Progress Galveston initiative a series of Specialized Plans were completed or updated. These plans are intended to support the policies and guidance of the Comp Plan and ensure City actions are consistent with federal and state regulations. The following plans were completed or updated: Parks & Recreation Plan Historic Preservation Plan Coastal Management & Erosion Response Plan Thoroughfare & Mobility Plan Disaster Recovery Plan Community Sustainability Plan Land Development Regulations

The Progress Galveston initiative also resulted in an overhaul of the City's Land Development Regulations (LDRs) including zoning subdivision and related regulations affecting development in historic districts wetlands coastal areas tree preservation signage etc. The project included a reworking of the City's development review and approval processes. As a central component of the City's post-Hurricane Ike recovery process the project was funded through a grant from the U.S. Department of Housing and Urban Development

KEY FEATURES

- Public Outreach
- Greenway Trail Plan Development
- Wetland & Wildlife Assessment
- Regional Trail Assessment
- Project Costing

Trail, Transit & Destination Guide

National Park Service, Mississippi National River & Recreation Area

Twin Cities, MN

HDR created a comprehensive geodatase and designed maps and layout for the updated River Companion - a guidebook for approximately 80 miles of the Mississippi National River and Recreation Area. The River Guide provides maps and information on the trails, transit, destinations, and history of the corridor through the Twin Cities metro region.

HDR also created a 20 square foot portable floor map for use in educational settings.

The River Guide won the 2014 Great Lakes Graphics Association (GLGA) Graphics Excellence Award of Excellence in the Booklet category..

BEACH NOURISHMENT AT SOUTH PADRE ISLAND

City of South Padre Island; Cameron County; Texas General Land Office; U.S. Army Corps of Engineers | South Padre Island, TX

TWO-TIME RECIPIENT OF ASBPA'S BEST RESTORED BEACH AWARD

Highlights

- Beneficial Use of Dredged Material
- Sediment Management
- Beach Nourishment

Services

- Conceptual Studies
- Planning, Design, and Surveying
- Sand Source Investigations
- Permitting and Section 7 Consultation
- Monitoring Nourishment Projects
- Construction Observation
- Funding Coordination

More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

South Padre Island is known for having one of the most attractive beaches in Texas. Unfortunately, much of the beach along developed areas of the island is eroding at an average long-term rate of five to ten feet per year, which threatens the integrity of existing Gulf-front structures. These beaches support the tourism industry that is South Padre Island's year-round economic base.

HDR began helping the City of South Padre Island find solutions to their beach erosion problem more than 15 years ago. This included quantifying erosion processes and trends, identifying alternatives, cost estimating, planning, and assessment of relevant U.S. Army Corps of Engineers (USACE) dredging projects. A wide range of structural and non-structural alternatives were evaluated, including seawalls, groins, detached breakwaters, nearshore berms, and beach nourishment. HDR recommended beach nourishment because it was economically sound, enhanced beach use, could be permitted, and federal dredging of the nearby Brownsville Ship Channel could provide up to 500,000 cubic yards of beach-quality dredged material every two years.

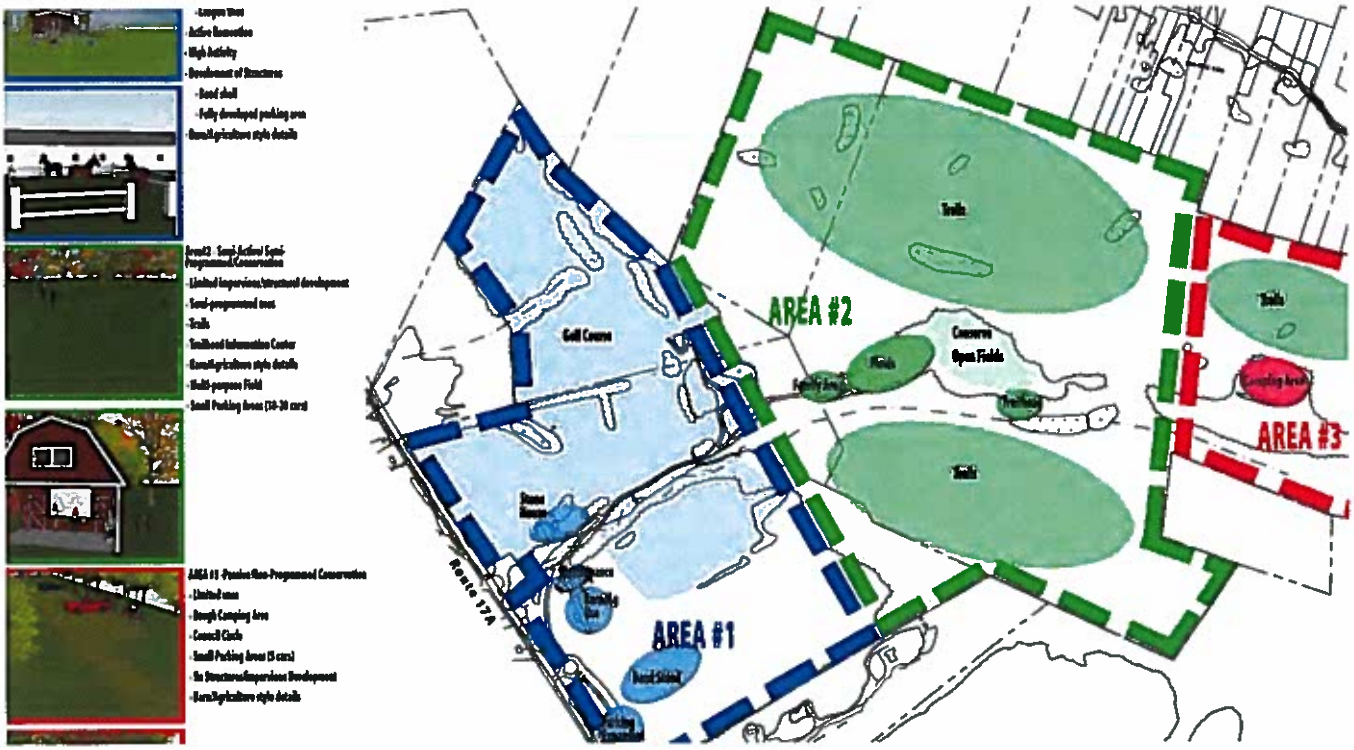
HDR assisted the City in working with the USACE to place dredged material on the beach during regular maintenance cycles of the Brownsville Ship Channel and helped coordinate passage of a ½-cent economic development sales tax to pay for beach maintenance.

During the first maintenance dredging cycle following the agreement, the USACE placed 490,000 cubic yards four miles north of Brazos Santiago Pass at a cost to the City of $630,000.

During subsequent maintenance dredging cycles, HDR continued involvement through monitoring and design of the projects. HDR has also helped the City obtain funding assistance through Texas' Coastal Erosion Planning and Response Act (CEPRA), which brought the Texas General Land Office on board as a funding partner. In total, HDR has helped the City place more than 3 million cubic yards of sand on their beaches.

HDR has also completed an offshore sand source investigation, preliminary design, permitting, and Section 7 consultation for a 700,000 cubic yard nourishment project using sand dredged from a dedicated offshore borrow source in the Gulf.

This project has been recognized twice by ASBPA as a Best Restored Beach.



KEY FEATURES

- Public Outreach
- Visioning Meeting
- GIS Mapping
- Project Website Development
- Field Condition Surveys

Warwick County Park & Trails Master Plan

Orange County Parks, Recreation & Conservation Department

Warwick, NY

HDR recently worked with the Orange County Parks, Recreations and Conservation Department on a Park and Trails Master Plan for Warwick County Park. Warwick County Park is a 705 acre park, located in the Town of Warwick, Orange County, NY. It is the second largest park in the County's park system.

Included as part of this master planning effort were field condition surveys, a public participation survey, project website creation and a visioning meeting. The intent of the process was to gather information regarding the park's usage, both in the vicinity, and within the county's park system.

Field conditions surveys were conducted to take an inventory of the current facilities and usage in the park, as well as the overall condition of the facilities provided. GIS (Geographic Information System) mapping provided the base information. Photographs were taken and logged at many locations in the park.

A project website was created as a central point to gather and disseminate information. Using the National Park Services' Park, Recreation, Open Space and Greenway Guidelines, a resident's survey was created in an effort to understand who uses this park, and for what activities. An opportunity was also created for the residents to make general comments on what they would like to see in the future for the park. A visioning meeting was held to give residents an opportunity to voice their opinions and concerns about the park.

From all the information gathered, HDR created a master plan, including estimated costs for various improvements. This master plan would serve as a road map for the County for future development as funding becomes available, as well as provide stewardship opportunities with various community organizations who would utilize the park. Park improvements proposed included improvements to the site's identity including visual presence and signage; a new trail system with trailhead facility; visitor center with opportunities for increase usage of existing buildings and facilities.

Site elements, improvements and circulation were organized by intensity of use; concentrating the more intense uses and facilities towards the front of the site, while gradually decreasing intensity to conserve the passive nature of the park.

SOUTH PADRE ISLAND "MEGA-RESORT"

American General Investment Corporation | South Padre Island, TX

Highlights

- Mega-Resort on Barrier Island
- Special Legislation in Washington and Austin
- Water Access/Service by Water Transit
- Beneficial Uses of Dredged Material
- Ecotourism

Services

- Planning
- Cost Estimating
- Budgeting
- Environmental Assessment

American General Investment Corp. (AGIC) owned approximately 22,000 acres of barrier island property on South Padre Island, TX, located along a 48-mile stretch between Brazos Santiago Pass and Mansfield Channel. Several of its environmental attributes present major developmental challenges. It is on a low barrier island subject to flooding and erosion. Most of the property is inaccessible by road and not served by utilities. The area is home to numerous endangered species and adjacent to Padre Island National Seashore.

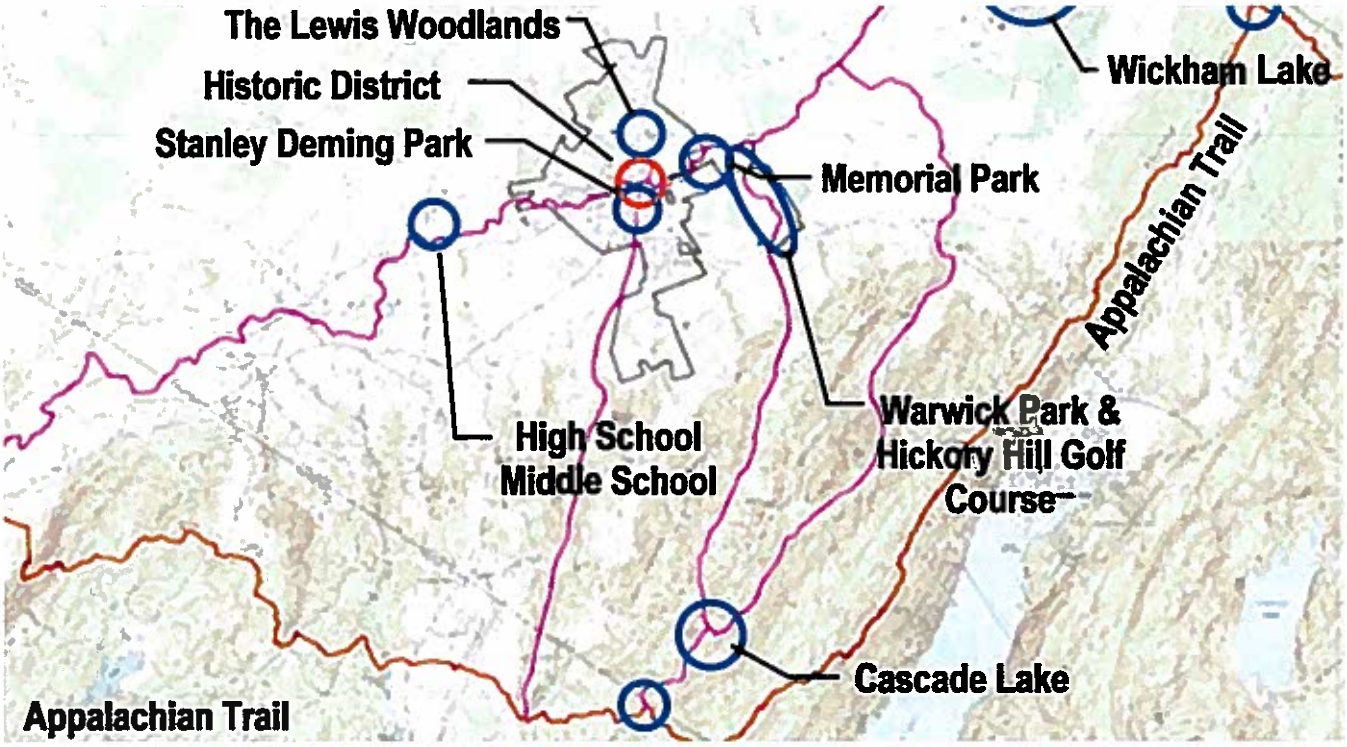
AGIC assembled a team of experts in resort planning and development, including HDR, to explore the property's potential. AGIC concentrated on a 14,000-acre tract adjacent to Mansfield Channel to develop into a unique, isolated mega-resort with over 10,000 hotel rooms and resort units on 3,000 acres and 11,000 acres of pristine spaces, served only by water transit. Build-out would be 20-30 years, cost $2-2.5 billion, and employment 8,000.

Substantial institutional, political, and technical initiatives were undertaken, including market research, conceptual physical planning, State and national legislative action, and various supporting activities. HDR provided a number of services, including:

- Developed technical and scientific data used in Washington to obtain provisions in the Coastal Barriers Resources Act that would not penalize mainland activities indirectly supporting the project.
- Provided environmental property characterizations and land-use planning efforts for project plan satisfying projected market requirements.
- Prepared conceptual development plan and cost estimates.
- Served as liaison with State and Federal regulatory agencies and comprehensive environmental assessment.
- Developed project report to support legislation authorizing creation of Coastal Conservation Districts.

More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com



KEY FEATURES

- Public Outreach
- Greenway Trail Plan Development
- Wetland & Wildlife Assessment
- Regional Trail Assessment
- Project Costing

Wawayanda Creek Greenway

Conceptual Greenway Plan

Warkwick, NY

HDR prepared a conceptual greenway design along Wawayanda Creek in the Village of Warwick. The project encompassed many interrelated facets centered on the design of a pedestrian and bicycle path along the Wawayanda Creek in Warwick, NY. The greenway was designed to provide continuous pedestrian and non-motorized recreational access to urban and scenic natural areas, and to promote regional connectivity with the Appalachian Trail.

HDR assessed the potential recreational and educational opportunities for the greenway, as well as the ecological functions the greenway would provide to natural wildlife in the area by providing wildlife corridors to reduce habitat fragmentation and enhance regional biodiversity.

HDR coordinated and conducted a public workshop to receive input from local residents. The public outreach effort was designed to inform, educate, and engage local residents. Public outreach activities included a presentation and technical workshop. The public's opinions were then incorporated into the design of the greenway, which included amenities and safety concerns.

BEACH NOURISHMENT AND SHORELINE PROTECTION AT BOLIVAR PENINSULA

Galveston County; Texas General Land Office; U.S. Army Corps of Engineers | Bolivar Peninsula, TX

Highlights

- Inlet stabilization
- Beach nourishment
- Shoreline protection
- Beneficial use of dredged material
- Dune reconstruction

Services

- Surveying
- Funding coordination
- Permitting
- Planning and design
- Construction phase services

For More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

Bolivar Peninsula stretches 25 miles from the Houston Ship Channel to High Island and is bisected by Rollover Pass, a man-made inlet that has been stabilized by bulkheading and crossed by a bridge. Access is by ferry from Galveston or via SH 87 from High Island. Much of Bolivar was devastated by Hurricane Ike in 2008.

HDR has completed several coastal engineering projects at Bolivar Peninsula, including:

Stabilization of Rollover Pass. HDR designed replacement bulkheads to stabilize the channel and provided improved public access for fishermen.

Comprehensive Master Plan. HDR developed a county-wide strategic erosion response plan. The effort quantified the problems, evaluated response alternative and identified an action plan that included funding and environmental considerations.

Shoreline Protection, Dune Reconstruction, and Beach Nourishment. The County, using various funding mechanisms, has completed beach nourishment involving the placement of more than two million cubic yards of sand on two miles of beaches since 1997. Sources of sand for the beach nourishment have included upland commercial pits and dredged material from Rollover Bay and the Gulf Intracoastal Waterway.

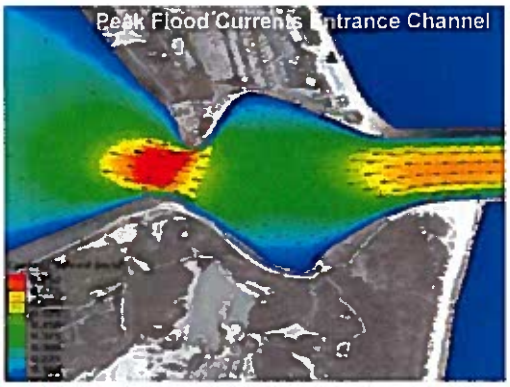
Federal Shoreline Protection Study. Congress authorized a regional erosion feasibility study covering Galveston and Jefferson counties. HDR is representing Galveston County on the U.S. Army Corps of Engineers technical work group and performing technical tasks.

Galveston County Beach Erosion Task Force. HDR continues to provide general consultation to Galveston County on coastal engineering issues.

Post-Hurricane Damage Assessments. HDR provided beach damage assessments following Hurricanes Rita, Ike and other storms. These assessments have helped the County and State file disaster recovery claims with FEMA.

BROWNSVILLE SHIP CHANNEL FEASIBILITY STUDY

Brownsville Navigation District | Brownsville, TX



Highlights

- Channel Improvements
- Greater Benefits
- Reduced Study costs

Services

- Shoreline studies
- Study improvements
- Corps of Engineers coordination
- Shoaling analyses

The Brownsville Ship Channel is a 17.5 mile long, 42ft deep channel located in South Texas near Brownsville, Texas. The channel location makes it ideal for trade with Mexico and South Texas. The Port boasts one of two locations authorized for US Navy Ship Breaking and is home to one of the largest offshore rig building and maintenance yards in the United States. The almost 12,000 people working at the port and its industries make it one of the largest employers in south Texas and an economic engine to the region.

In order to better serve its customers the Port embarked on a widening and deepening feasibility study with the Corps of Engineers. The Port is exploring depths up to 52ft and widths to 350ft as part of the channel improvement study. HDR was selected by the Port to provide support on engineering and environmental studies as well as support by coordinating with the Corps of Engineers on such a complex large scale project. HDR has reduced overall costs by performing some of the study work. HDR has identified additional, non-traditional benefits to support improving the cost/benefit ratio.

HDR's major responsibilities are:

- Expert support on scheduling, engineering, regulatory, cost-estimating and Corp Process. Provided incites into alternative approaches for schedule and benefits that have had positive impacts on the project cost/benefit ratio.
- Developed shoaling analyses to estimate the impacts to of adjacent channels, storms and rainfall on entrance channel shoaling.
- Conducted Corps required shoreline erosion analyses for entrance channel.
- Dredged material placement area capacity and improvement analyses.
- Identified innovative methods for benefits capture increasing the number of viable alternatives.

For More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

CORPUS CHRISTI BEACH STRATEGIC PLAN

Corpus Christi Beach Association; City of Corpus Christi | Corpus Christi, TX

Highlights

- Beach nourishment
- Ecotourism and habitat protection/creation
- Beneficial uses of dredged material
- Waterfront redevelopment
- Recreation – parks

Services

- Funding, planning, and budgeting
- Economic analysis
- Surveying
- Cost estimating
- Stakeholder involvement

For More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

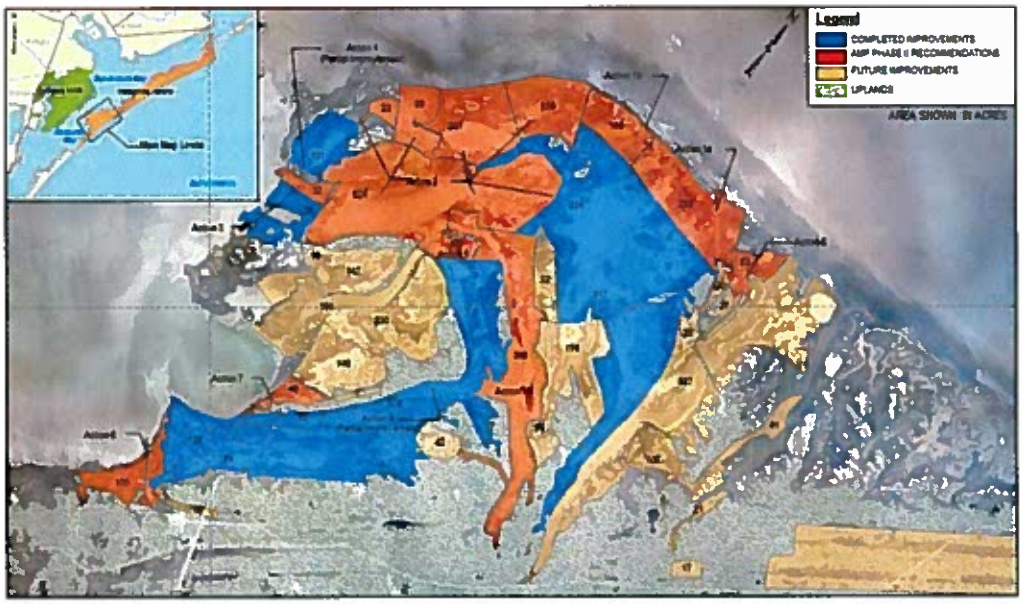
Corpus Christi Beach is a 360-acre neighborhood located just over the Harbor Bridge from downtown Corpus Christi and is home of the Texas State Aquarium and the USS Lexington aircraft carrier museum. Once the premier beach destination in Texas, it has experienced a steady decline over the last half century due to several factors. Easy access to Gulf beaches via the John F. Kennedy Causeway, several hurricanes that devastated property on Corpus Christi Beach, and a high bridge and expressway that bypassed the area, led to this decline.

The Corpus Christi Beach Association, an organization of citizens and businesses whose objective is the revitalization of the area, was nominated by the City of Corpus Christi to prepare a strategic plan to guide redevelopment of the area under the provisions of a Texas Coastal Management Program grant. The Association reviewed the grant and subsequently awarded a contract to HDR to develop the strategy and action plans for implementation.

During the nine-month planning period, HDR pursued an aggressive effort that involved a proactive stakeholder outreach program to include interested parties including residents, businesses, local governments, and agencies. In a final report on the revitalization of Corpus Christi Beach, HDR recommended 35 strategic initiatives under the following ten action items: Beach Management; Funding; Commercial Tourism; Natural Hazards; Ecotourism; Aesthetics; Residential Development; Promotion and Advocacy; Land Use and Allocation; and Coordination and Facilitation.

ADAPTIVE MANAGEMENT PLAN FOR MATAGORDA ISLAND

Coastal Bend Bays and Estuaries Program | Matagorda Island, TX



Highlights

- Adaptive management plan
- Developed monitoring protocols
- Valuable funding tool

Services

- Planning
- Surveying
- Data analysis
- GIS mapping

The Matagorda Island Adaptive Management Plan (AMP) was developed to assist U.S. Fish and Wildlife Service (USFWS) and Coastal Bend Bays & Estuary Program (CBBEP) in their efforts to restore the roughly 15,000 acre complex at the eastern end of Matagorda Island, Texas. The project site is a remote site managed by USFWS composed of wind tidal flats, salt marsh, uplands, sand flats, tidal channels, brackish wetlands, and miscellaneous open water features. A system of levees and roads constructed historically to drain the site and promote livestock grazing remains largely intact with several culvert systems in place, resulting in muted tidal exchange with the surrounding bay system, altered circulation patterns, restricted flows, and impaired water quality in remote reaches. Therefore, the project team sought to restore the project site and maximize productivity by improving tidal exchange with the bay and enhancing internal circulation within the marsh complex, while maintaining key land-based access corridors throughout the project area. Due to very limited existing data, an Adaptive Management Plan was initiated that conceptualized system function, identified restoration and improvement actions, and described monitoring protocols/applied studies intended to quantify the effects (positive or negative) of actions taken.

In 2008 a series action items (culvert installations) were implemented to improve tidal exchange within the marsh system. In addition, a series of monitoring stations were installed to accommodate instrumentation provided by USFWS. Tide data was collected over a 6 month period before and after culvert installation to assess improvements in tidal exchange due to construction of the action items. Based on these findings, the AMP was revised with new recommendations for action items and future monitoring. A series of culverts was installed in the summer of 2010 with additional data collection.

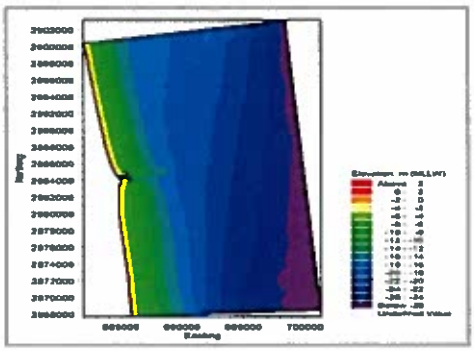
HDR analyzed the tide data in 2011 and used the information to update the AMP. In addition, HDR provided design services for culvert replacement along with supplemental construction administration.

More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

SHORELINE IMPACT ANALYSIS

Port of Brownsville | Brownsville, TX



Highlights

- Shoreline Impact Analysis
- Federal Feasibility Study
- Sediment Budget

Services

- Coastal Engineering
- Wave Modeling

The Brownsville Navigation District and the U.S. Army Corps of Engineers (USACE) are conducting a feasibility study to determine the federal interest in widening and/or deepening the Brazos Island Harbor Channel. The Port of Brownsville requested that HDR perform a shoreline impact analysis to examine the potential for wave-field alterations to cause impacts to the adjacent Gulf shorelines 10 miles to the north and south of Brazos Santiago Pass.

Wave modeling was performed for five channel modifications to examine how each proposed channel improvement could potentially change refraction and shoaling patterns of Gulf waves as they interact with the channel, adjacent seafloor, and jetties. Proposed channel modifications were predicted to result in relatively minor alterations to the typical nearshore wave field. This is largely because the improvements will change bathymetric contours in deep water where the seafloor does not significantly interact with the relatively small waves characteristic of the study area. The impacts of the wave field alterations were evaluated by estimating changes to longshore sediment transport based on wave modeling results and through application of a sediment budget to assess impacts of longshore sediment transport changes on shoreline changes.

The study concluded that if the proposed channel modifications are constructed, existing shoreline change trends would generally continue and beaches adjacent to the pass would not be expected to experience significant impacts from the proposed channel deepening and/or widening. Over the long term, impacts would likely be indistinguishable from background shoreline change because of the natural variability of coastal processes.

More Information:
HDR Engineering, Inc.
361-696-3300

www.hdrinc.com

Barrow County Parks, Recreation & Cultural Affairs Master Plan

Barrow County Board of Commissioners

Winder, GA

HDR developed a Comprehensive Parks, Recreation, and Cultural Affairs Master Plan for Borrow County, GA. The Plan was developed to address future population growth with the intent that facilities and services be provided to all Barrow County residents.

The purpose of the Plan was to establish goals and objectives that would guide the County in the future development and enhancement of its facilities and programs. The Plan provided inventory and analysis of existing conditions, recommendations, and a financing and implementation strategy for: land acquisition and conservation, leisure opportunities, sites and facilities, and public safety and security. The plan also recommended a future system of interconnected civic spaces, multiple parks, special use facilities, greenways, scenic road corridors, passive parks/ natural resource protection areas, and bicycle/pedestrian facilities.

Development of the Plan included extensive public input. A community web-based survey, meetings with Barrow County Leisure Services staff and Services Board, five public meetings, stakeholder interviews, and a final presentation to the Barrow County Board of Commissioners elicited public comments during all phases of the planning process.

Professional Services: Comprehensive Plan, public outreach

Recreation Master Plan

City of Jacksonville

Jacksonville, FL

HDR is preparing a County-wide recreation master plan for the Department of Parks, Recreation & Entertainment in Jacksonville, Florida. This plan includes the development of a needs analysis and update of the LOS Standards based on new population and demographics of the study area.

The plan includes mapping of over 300 park sites, field evaluation of the parks and creation of a software database management system. The software system is a GIS based database to be used by the Department as a management tool for scheduling park improvements and evaluation of needs.

A community web page is also being developed to allow the general public access to information regarding park locations, facilities, upcoming events, and planned improvements.

Professional Services: Recreation Master Plan, mapping, filed investigations, software database, management systems, community web page

Northwest Recreational Corridor Plan

Hillsborough County Parks, Recreation & Conservation Department

Tampa, FL

HDR was selected to prepare a master plan for recreational uses of approximately 1,930 acres of land owned or leased by Hillsborough County, FL. This conceptual recreational plan was to consider potential social, economic and environmental effects when developing recreational use areas/activities including paved multi-use trails, fishing docks, equestrian trails/facilities, group picnic shelters, restrooms, special events ground, hiking and biking trails and fishing docks. During the preparation of the plan, HDR held meetings with County Commissioners, staff and the public. Coordination with other County agencies, environmental regulatory agencies, utilities, was an ongoing task during the development of the Master Plan.

The Master Plan Report, included a Conceptual Plan, an Opinion of Probable Cost (including land acquisition, environmental impacts, construction and maintenance costs), potential funding sources, and phasing considerations. The Master Plan Report was approved by the Hillsborough County Board of County Commissioners, ensuring that any development on the study area would use recreation as a guiding principle.

Professional Services: Recreation Master Plan preparation, public outreach/ meetings, Conceptual Plan, Opinion of Probable Cost,

Blood Run/Good Earth State Park Master Plan

South Dakota, Game Fish & Parks

Sioux Falls, SD

Good Earth State Park, a 588 acre park, located southeast of Sioux Falls, is an important cultural and historical site as well as a unique nature retreat adjacent to the most developed and populated part of South Dakota. The site itself is one of the oldest sites of long-term human habitation in the United States.

HDR was contracted by South Dakota Game Fish and Parks (SDGFP) to determine the master plan for the development of this park, while preserving its significance. HDR designed the first phase of improvements to the park, namely a state-of-the-art visitor's center. HDR conducted a series of workshops with stakeholders to make sure the design of the visitor center and the interpretation of the site allowing South Dakota residences and visitors to have a world class experience. HDR's vested interest in this local park allowed the team to work collaboratively with SDGFP and focus on ensuring this site allows visitors to make connections from the past habitants to how each of us live today.

Professional Services: Master Plan, public outreach

Southeast Intercoastal Waterways Park

St. John's County Department of Parks

St. Augustine, FL

Through an indefinite delivery contract with the St. Johns County Parks and Recreation Department, HDR designed the master development plan for the Southeast Intracoastal Waterway Park. The site is approximately 148 acres and is bordered by the Intracoastal Waterway on the west and SR A1A on the east. The site plan includes a visitor center with restrooms, a picnic/playground area, limited on-site parking and walking trails. The site is dominated by coastal scrub habitat. The plan proposed environmental education displays that will focus on ecological education of the salt marsh and coastal scrub environments.

HDR prepared the master plan, construction documents and coordinated the permitting process for the Southeast Intracoastal Waterway Park. The plan features a waterfront walkway and dock that allows spectacular views across the waterway.

Professional Services: Master planning, construction documents, permitting

Hudson River Swimming Beaches

NYS Office of Parks, Recreation & Historic Preservation

New York, NY

The project team of HDR and The Hudson Group was contracted by the NYSOPRHP and NYSDEC to determine the feasibility of developing public swimming facilities along shores of the Hudson River Estuary. More than 60 potential sites were evaluated using a two-step process, which included an analysis of the existing physical conditions of the potential sites as well as other relevant environmental factors. The existence of threatened and endangered species was researched via a Section 7 consultation with the U.S. Fish & Wildlife Service as well as consultation with the NYSDEC Natural Heritage Program. Locations of significant habitat areas were determined, as well as potential influence on state and Federal wetland areas. Economic and social need for each potential site was estimated using the Statewide Comprehensive Recreation Plan and census data.

The nine best-suited sites were identified and swimming facility concepts were developed for each site. The site concepts consisted of a facility layout including swimming areas, support structures and boat ramps. Facility concepts ranged from small and medium sized beaches in areas where water quality would allow swimming, to the concept design of floating pools and/or barges for areas with poor water quality. Study results were detailed in a draft Feasibility Report.

Professional Services: Environmental Investigations, permitting, dredging

South Bronx Greenway
New York City Economic Development Corporation

Bronx County, NY

HDR provided guidance and environmental services for the conceptual development of the South Bronx Greenway, a pedestrian and bikeway esplanade along the south section of the Bronx River, the north shore of the East River and connecting to other existing links in the city wide greenway system. As part of this greenway HDR developed construction drawings and specifications for a key element of the greenway a small pocket park, constructed wetland complex and shoreline connection to the Bronx River called Hunts Point Landing. HDR prepared the contract drawings and specifications for the salt marsh tidal pool portion in addition to a freshwater wetland component of the park that will treat and renovate stormwater runoff from the roads. As part of the project HDR prepared generic guidelines for incorporating aquatic habitat features such as reef balls into various edge treatments, such as piers, bulkhead walls, and rip-rap.

Professional Services: Permitting review and assistance, NYSDEC VCP site assessments, SEQR/CEQR, ecological community identification, wetland mapping and mitigation planning, soil and groundwater sampling

Parks, Trails & Open Space Master Plan
Town of Queen Creek

Queen Creek, AZ

The Town of Queen Creek desired "to preserve the benefits of rural life while providing an avenue for managed change." In recent years, the expanding growth of the Phoenix metropolitan area reached the small, agricultural community of Queen Creek. Maintaining and preserving the small town character that Queen Creek is recognized for was challenging in the face of fast growth. Current and new residents expected recreation and alternative transportation amenities; preservation of open space, particularly Queen Creek and Sonoqui washes; access to community facilities; a choice of trails that connect the community's recreation facilities; and access to a variety of recreation programs.

The Town's recreation needs were defined through: analysis of the current facilities and their distribution throughout the Town; soliciting input and comments from staff, residents, and community leaders through public meetings; and from a benchmark study and phone survey. The Master Plan provided recommendations on the type and number of facilities that should be developed, where they should be located, what recreation programs would be provided, and how these facilities and programs will be implemented.

Professional Services: Public involvement, Parks, Trails, & Open Space Master Plan, Design Guidelines, Implementation Plan

Sargent Beach Recreational Development Plan
City of Sargent

Sargent, TX

Sargent Beach, located 60 miles southwest of Houston, was once the premier public beach in Matagorda County, but severe erosion has greatly diminished its accessibility and attractiveness over the years. To protect against the loss of thousands of feet of shoreline and to protect the Gulf Intracoastal Waterway and surrounding property from erosion, an eight-mile granite stone revetment system was installed. It was anticipated that newly created maintenance roadways and beach access would be a major attraction for beachgoers and fishermen.

To accommodate the anticipated increase in public use and to ensure cost effective development of these resources, a comprehensive plan was needed. HDR generated a plan to provide for beachfront revitalization and enhanced public access as well as encourage tourism.

After considering environmental issues, funding sources, natural hazards, politically acceptable recommendations, and economics, and holding stakeholder forums, HDR developed a plan that included: beachfront park and pavilion, fishing pier and intracoastal marina, boat ramps, nature areas and bird habitats, and beach access.

Professional Services: Comprehensive Plan, stakeholder forums, recreational facilities