

Galveston Bay Estuary Program

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Houston, TX 77058-2646

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April 12, 2018

Dear Galveston Bay Council Members:

The next quarterly meeting of the Galveston Bay Council is scheduled for:

Wednesday, April 18, 2018

9:30 AM - 12:30 PM

Meeting location:

Harris-Galveston Subsidence District

1660 West Bay Area Blvd,

Friendswood, TX 77546-2640

(281) 486-1105

Information for the April 18, 2018 meeting is attached as noted below.

1. Council Agenda for April 18, 2018
2. Draft January 31, Council Meeting Minutes

Sincerely,

Sarah P. Bernhardt

Program Manager

Galveston Bay Estuary Program (GBEP) /Texas Commission on Environmental Quality (TCEQ)



A PROGRAM OF THE TCEQ

GALVESTON BAY COUNCIL (GBC) QUARTERLY MEETING

Location: Harris-Galveston Subsidence District, 1660 West Bay Area Blvd, Friendswood, TX 77546-2640

AGENDA: Wednesday, April 18, 2018

9:30 A.M.: **Call to Order:** Introduction of Members and Delegates

Action Item: Approval of January 31, 2018 Meeting Minutes

Report of the Program (Sarah Bernhardt)

Report of the Chair (Helen Paige)

Presentation & Discussion: State of the Bay Report, 4th Edition: Update and Path Forward; Lisa Gonzalez, President, HARC

Presentation & Discussion: Texas Water Development Board (TWDB) Updates on the State Flood Assessment and Disaster Recovery Financial Assistance; Caimee Schoenbaechler, Manager of Bays & Estuaries and Scott Galaway, Program Specialist, TWDB.

10:50 A.M.: **Break**

11:05 A.M.: **Presentation & Discussion:** Texas Coastal Resiliency Master Plan Update; Kate Saul, Texas General Land Office

Subcommittee Reporting:

- Presentation from the Public Participation and Education subcommittee including a **presentation on community based social marketing (CBSM)** (Cynthia Clevenger) **followed by a local case study where CBSM has been implemented at Texas City Dike** by subcommittee member Stennie Meadors, Galveston Bay Chapter of Texas Master Naturalists and Plastic Pollution Prevention Partnership.
- Monitoring and Research and Water and Sediment Quality Subcommittees: Request for input on knowledge gaps (Mike Lee and Brian Koch)

Council Member Roundtable: News, Announcements and Discussion

12:25 P.M.: **Public comments**

12:30 P.M.: **Adjourn**

Upcoming Galveston Bay Council Meeting Dates: July 18, 2018; October 17, 2018, January 16, 2019, April 17, 2019. Meetings are held on the third Wednesday of the quarter from 9:30 am-12:30 pm. If there are known conflicts, Council members are welcome to propose alternate dates to the Council.

GALVESTON BAY ESTUARY PROGRAM

DRAFT – Galveston Bay Council (GBC) Meeting Minutes–January 31, 2018

Attendees:

Galveston Bay Council Chair: Helen Paige (Marinas)

Galveston Bay Council Vice-Chair: Glenn Clingenpeel

Estuary Program Staff Lead: Sarah Bernhardt, Galveston Bay Estuary Program (GBEP)

The January 31, 2018 quarterly GBC meeting was held at Harris-Galveston Subsidence District, 1660 West Bay Area Blvd., Houston, Texas, from 9:32 AM to 12:22 PM.

Members Present: Scott Alford, Christine Bergren, Glenn Clingenpeel, Albert Gonzales, Rebecca Hensley, Kelly Holligan, John Huffman, Doug Jacobson, Brian Koch, Audrey Kuklenz, Kristin Lambrecht, Helen Paige, Nancy Parra, Ana Partin, Pamela Plotkin, Taylor Rieck, Kate Saul, Ronnie Schultz, Sharron Stewart, Lori Traweek, Kirk Wiles, Tracy Woody

Members Not Present/Delegates: Caryn Brooks, Andrea Catanzaro, Mark Fisher*, Phillip Goodwin, Jace Houston*, Mike Lee, Luz Locke, Garry McMahan, Will Nipper*, Russ Poppe*, Aaron Rice, Hanadi Rifai, Caimee Schoenbaechler*, Linda Shead, Mary Beth Stengler, Bob Stokes*, Rusty Swafford*, Jeff Taebel*, Chuck Wemple

(*=Member designated a proxy)

Proxies Present (council member absent/designated proxy):

Mark Fisher/Christine Bergren, Jace Houston/Kim Wright, Will Nipper/Maria Valdez, Russ Poppe/Glenn Laird, Kate Saul/Mollie Powell, Caimee Schoenbaechler/Dr. Nelun Fernando, Bob Stokes/Courtney Smith, Rusty Swafford/Aaron Chastain, Jeff Taebel/Todd Running

Current Vacancies: None

Other Attendees: Erin Kinney, Houston Advanced Research Center (HARC); Mollie Powell, General Land Office (GLO); Kathy Janhsen, Houston-Galveston Area Council (H-GAC)

Additional GBEP Staff present: Cynthia Clevenger, Cassidy Kempf, Lindsey Lippert, Lisa Marshall, Mary Stiles

Call to Order: Introduction of Members and Delegates

Chair Helen Paige called meeting to order and confirmed a quorum before moving to the first action item.

Action Item: Approval of October 18, 2017 Meeting Minutes

Helen Paige opened the meeting with approval of the October 31, 2017 meeting minutes and opened the floor for questions and comments. A motion was requested for approval of the minutes. Glenn Clingenpeel moved to approve the minutes

followed by Lori Traweek who seconded the motion. The minutes were approved with no changes.

Report of the Chair:

Helen Paige gave thanks to Nancy Parra for her service to the Council during her tenure as Chair. Helen Paige highlighted Nancy's numerous roles on the GBC during her tenure as vice-chair and chair to the Council and previous service as chair of the Public Participation and Education Subcommittee, and presented her with an award from the Council recognizing her years of service.

Helen Paige acknowledged the departure of Bill Baker and John Jacob from the GBC and welcomed Glenn Clingenpeel as Vice Chair.

Helen Paige announced that the nominations committee would be meeting and is seeking volunteers to serve.

Helen Paige also gave an update on the status of the Hurricane Harvey donation from the Barnegat Bay Estuary Program in New Jersey, which was given to the Coastal Bend Bays and Estuaries Program (CBBEP) in Corpus Christi and GBEP to support the two national estuary programs following Harvey. The Budget and Priorities Subcommittee considered the need of the region hit directly by the landfall of the storm to be more pressing and stated that the funding would remain in total at the CBBEP. Sarah Bernhardt noted that a thank you letter will be sent to Barnegat Bay Estuary Program and will copy the director of CBBEP.

Report of the Program:

Dr. Sarah Bernhardt introduced the GBEP team's newest employee, Cassidy Kempf. Cassidy's start date with the program was December 18, 2017. She has undergraduate degrees from Rice University in Ecology and Policy Studies and completed an undergraduate research study on the effect of the Tawny Crazy Ant invasion in the Big Ticket National Preserve. Prior to her arrival at the GBEP she oversaw the implementation of a riparian buffer for Houston's Parks and Recreation Department. Cassidy will be leading implementation tracking and reporting for the Galveston Bay Plan, maintenance and updates of estuary program websites, supporting workshops and symposium, and project management.

Dr. Bernhardt announced that the GBEP team has been working with Subcommittees of the Council and partners to develop the fiscal (FY) 2019 work plan projects proposals and budget. She stated that GBEP staff would give a presentation later in the meeting.

Action Item: Annual Conflict of Interest Form Completions (*all Council members and proxies sign annually*).

Dr. Bernhardt reminded the Council that By-Laws acknowledgement forms must be signed annually, prior to our annual work plan approval. Council members were asked to submit their forms during break.

Action Item: Approval of nomination of Dr. Pamela Plotkin to represent Texas Sea Grant. Helen Paige summarized Dr. Plotkin's biography and requested a motion for approval. Brian Koch motioned for approval, seconded by Glenn Laird.

Presentation & Discussion: FY 2019 GBEP Work Plan. There were a series of short presentations by GBEP staff covering the projects and programmatic costs being proposed.

GBEP staff provided power point presentations and answered questions on specific projects.

(see attached presentation slides for project details)

Dr. Bernhardt - Presented an estimated budget and plan for the GBEP for one year from Sept. 1, 2018 - August 31, 2019.

Dr. Bernhardt - Presented proposed programmatic projects, then introduced GBEP staff to present subcommittee proposed FY 2019 budget and projects for council vote approval.

Lindsey Lippert - Presented the projects recommended by the Natural Resource Uses (NRU) Subcommittee of the Council. Please see presentation handout for additional information.

Lisa Marshall - Presented the projects recommended by the Water and Sediment Quality (WSQ) and Monitoring and Research (M&R) Subcommittees of the Council.

Cynthia Clevenger - Presented the projects recommended by the Public Participation and Education (PPE) Subcommittee of the Council. Please see presentation handout for additional information.

Dr. Bernhardt thanked the GBEP staff, subcommittee chairs, and subcommittee members for their work in developing the projects.

Discussion and Action Item: FY 2019 work plan and alternatives approval for the GBEP 2019 Budget

After an opportunity for questions, and a discussion of the procedure for approving projects, the Council voted on blocks of proposed projects. See table below for results.

Proposed Projects

Project Title(s)	Abstention(s)	1 st Motion	2 nd Motion	Objection(s)	Approval Status
Programmatic Costs and Projects					
Operations Budget	Doug Jacobson (EPA)	Glenn Clingenpeel	Brian Koch	None	Approved
Estuary Resilience Assessment	John Huffman (USFWS)				
Mickey Leland Environmental Intern	Kelly Holligan (TCEQ)				

NRU Projects					
Conservation Assistance Program (CAP)	Doug Jacobson (EPA)	Lori Traweek (GCA)	Nancy Parra	None	Approved
Dollar Bay-Moses Lake Wetlands Restoration & Protection	John Huffman (USFWS)				
GIFT-Anahuac Freshwater Wetland Restoration / Armand Bayou Invasive Species Control	Kelly Holligan (TCEQ)				
Clear Creek Riparian Restoration	Courtney Smith (GBF)				
	Kate Saul (GLO)				
	Audrey Kuklenz (RRC)				
WSQ Projects					
Bacterial Source Tracking (BST) on Tributaries of Trinity and Galveston Bays	Kate Saul (GLO)	Sharron Stewart	Glenn Clingenpeel	None	Approved
Green Infrastructure For Texas (GIFT) - Stormwater Treatment Wetlands:	Doug Jacobson (EPA)				
Nutrient and Sediment Monitoring of the Lower San Jacinto River	John Huffman (USFWS)				
Highland Bayou Watershed Protection Plan (WPP)	Kelly Holligan (TCEQ)				

Designing for Impact: Promoting Low Impact Development (LID) Implementation (Alternative Project)					
M&R Projects					
Seafood Evaluation in a Portion of Galveston Bay Characterization of the Influence of Freshwater Inflow on the Trinity River Delta Indicators Galveston Bay Intertidal Oyster Reef Mapping and Analysis Monitoring Zooplankton Dynamics for Ecosystem Assessment of Galveston Bay (Alternative Project)	Doug Jacobson (EPA) John Huffman (USFWS) Kelly Holligan (TCEQ) Kirk Wiles (TDSHS)	Nancy Parra	Todd Running	None	Approved
PPE Projects					
River, Lakes, Bays 'N Bayous Trash Bash Know Your Watershed Educators Summer Institute	Doug Jacobson (EPA) John Huffman (USFWS)	Ronnie Schultz	Brian Koch	None	Approved

Blackhawk Park Coastal Prairie Restoration & Education Project Seawall Recycling	Kelly Holligan (TCEQ) Lori Traweek (GCA) Todd Running (H- GAC)				
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Presentation & Discussions: Comprehensive draft (internal review for GBC and Subcommittees) of *Galveston Bay Plan, 2nd Edition* (H-GAC and GBEP) by Kathy Janhsen (H-GAC).

Kathy Janhsen presented to the GBC members and Subcommittees a layout of the draft plan and explained what is needed from them by GBEP in this internal review, prior to releasing the plan for public comment.

Dr. Bernhardt discussed the requested level of review by the partners and members of the council and committees. She reminded the council that the deadline for the GBC and Subcommittees' pre-public review is COB February 2nd, and reminded them that additional comments could be submitted during the public comment period in March.

Dr. Bernhardt reminded the Council about a special meeting to approve the *Galveston Bay Plan* revision, tentatively set for August 22, 2018. She asked if the council would be amenable to a telephone/webinar option or had any preference for an in-person meeting.

Council Members Roundtable: News and Announcements

Ronnie Schultz – Reported that the Galveston County Health Department can provide meeting space at a community center with space for 50 - 100 people.

Todd Running – Reported that the Clean Rivers Program (CRP) Coordinated Monitoring meeting will be in April. Trash Bash will be taking place on March 24, 2018 with 15 sites this year. You can go to www.trashbash.org to get more information.

Brian Koch – Reported that the Cedar Bayou Watershed Stewards class is next Thursday, February 8th in Mont Beliveau.

Kate Saul – Reported that the National Oceanic and Atmospheric Administration (NOAA) highlighted Exploration Green.

Mollie Powell – Beach cleanup in Matagorda. GLO is conducting debris removal in bays and rivers, but they are running out of funding. Due to this, the GLO is focusing on the southern coast of Texas.

Dr. Nelun Fernando (Proxy) - The Texas Water Development Board is in the process of developing requests for qualifications and scopes of work for environmental flow studies. These studies will support agency programs as well as work plans for adaptive management of the stakeholder-driven process for identifying and quantifying environmental flow regimes needed to maintain sound ecological environments in

Texas rivers and estuaries (established with the passage of Senate Bill 3 of the 80th Texas Legislature in 2007).

Glenn Clingenpeel – Reported that the Trinity River Authority received one of the Texas Water Development Board grants.

Nancy Parra – Thanked everyone for their support while she served as Chair to the Galveston Bay Council. Reported that voting for primary elections is March 6 and anyone can visit vote411.org to read candidate responses.

Helen Paige – Thanked Nancy for her service as the GBC Chair.

Doug Jacobs – The federal government will be funded via a continuing resolution through next week.

Courtney Smith – Texas Parks and Wildlife Department (TPWD) Abandoned Crab Trap removal will be held on February 17th at Ft. Anahuac and Bolivar. March 24, 2018 Trash Bash site at Bay Area Park; April 21, 2018 Bay Day Festival location Kemah Boardwalk; and May 12, 2018 20th year anniversary of Marsh Mania.

Taylor Rieck – Coastal Conservation Association will have their crab trap removal station at Fat Boys in Tiki Island.

Glenn Laird – Harris County Flood Control District (HCFCD) is in recovery mode and has developed a path to moving forward post Harvey. The agency is almost finished with cleanup and is shifting resources to address Harvey damage and other existing issues. HCFCD is developing a wish list of major new projects to fund (federal, state and local).

Pamela Plotkin – Thanked everyone for the nomination to the Galveston Bay Council. Texas Sea Grant is a federally funded NOAA affiliate program for which they need to raise matching funds, maybe some from the State of Texas and some from Texas A&M University (TAMU). TAMU also receives funding from a special education allocation from the State of Texas Budget, which received a 30% cut.

Christine Bergren – Reported that she is honored to have been appointed to the Council to represent Texas Department of Transportation and is looking forward to serving on the Council.

Rebecca Hensley – TPWD Coastal Fisheries office will be relocating to La Marque, Texas. The office has a staff of 40. TPWD is participating in the abandoned crab trap removal. Anyone interested in participating can check the TPWD website for more information.

Albert Gonzalez – Thanked all Federal and State government employees for their efforts despite ongoing budget cuts to their programs.

Kelly Holligan – Reported that Water Quality Standards will be presented to the TCEQ Commission for adoption on February 7, 2018.

Kerry Niemann - *Regarding RESTORE*: The final Multi Year Implementation Plan for the first round of RESTORE Bucket 1 funding was approved by the U.S. Department of Treasury on December 19, 2017. The plan lists 26 projects totaling \$114 million. Not all 26 projects will receive funding, but as civil penalties continue to rise, the remaining projects can be considered for implementation. Due to ongoing payments into the RESTORE Trust Fund, the total funds available exceed \$86 million.

Regarding the Total Maximum Daily Load Program: The Tres Palacios TMDL and Implementation-Plan, and Jarbo Bayou TMDL were adopted and approved on January 24, 2018. The draft Lower San Antonio River Implementation Plan is scheduled to go to agenda for release for public comment on March 7, 2018.

Regarding the NPS Program: The 2017 NPS Management Program was submitted to EPA for approval by Governor Abbott on December 18, 2017. The 2017 Annual Report has been submitted to EPA for approval.

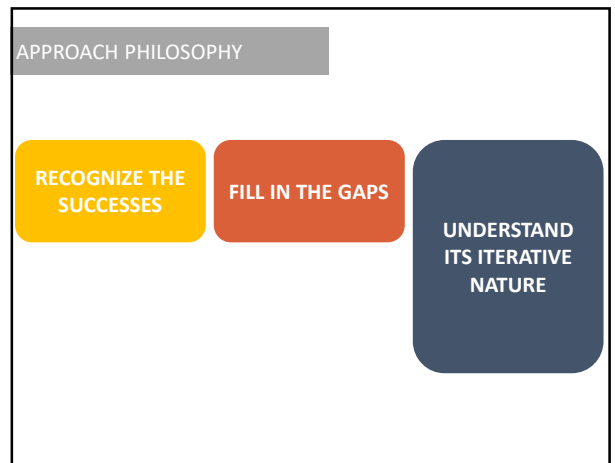
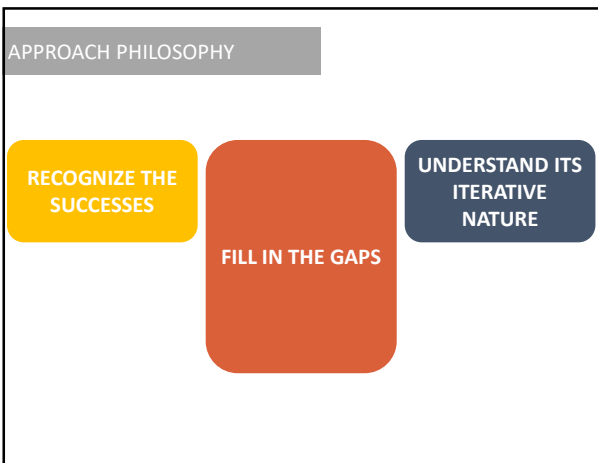
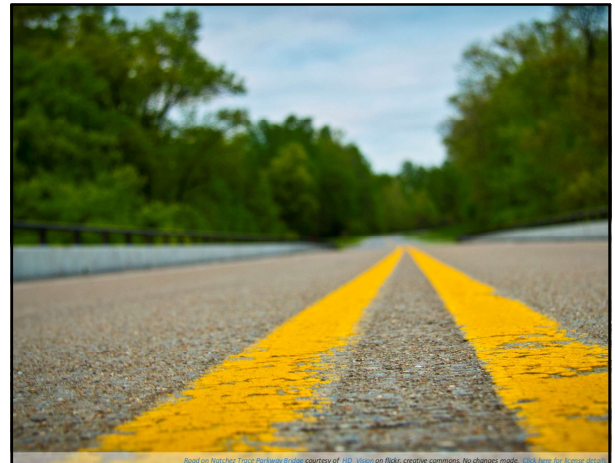
Aaron Chastain – NOAA Fisheries Ocean Science Day will be held on March 24th at Ft. Crockett facility from 9:00am – 3:00pm.

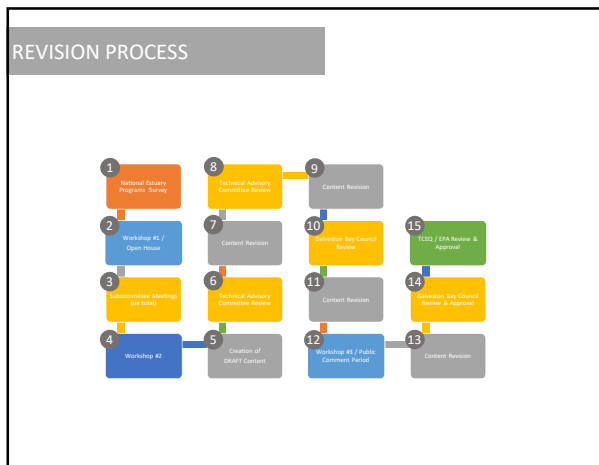
Public comments: Helen Paige invited comments or announcements from the public.

Erin Kinney – HARC is working on the next State of the Bay Report, 4th Edition, and will release a crosswalk document using the new 2nd edition of *The Galveston Bay Plan*.

Adjourn: Meeting was adjourned at 11.55am.

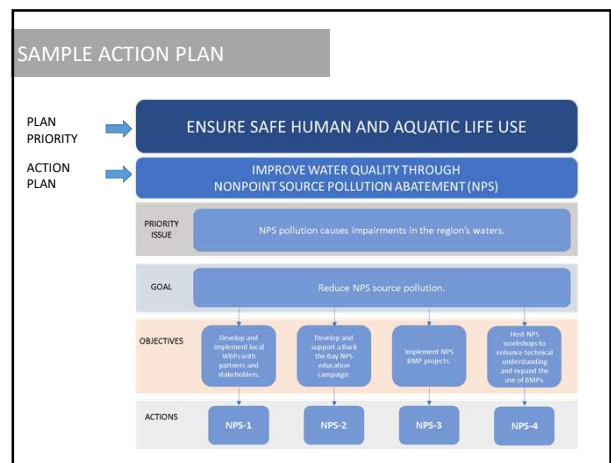
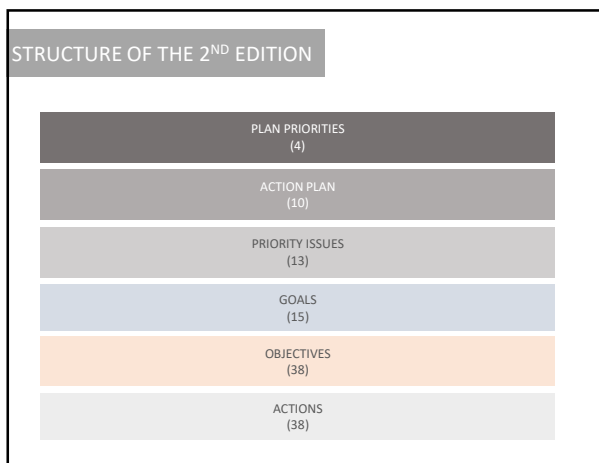
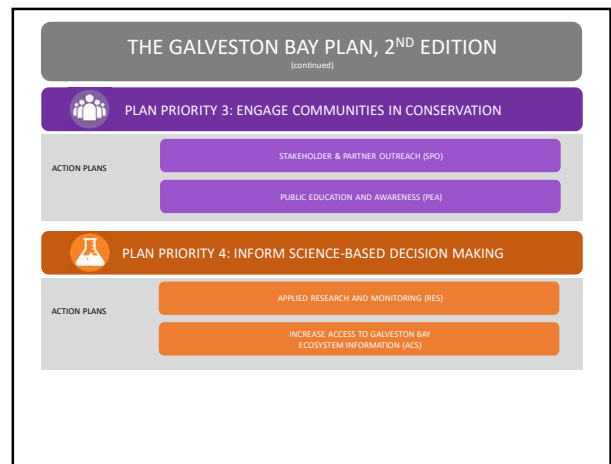
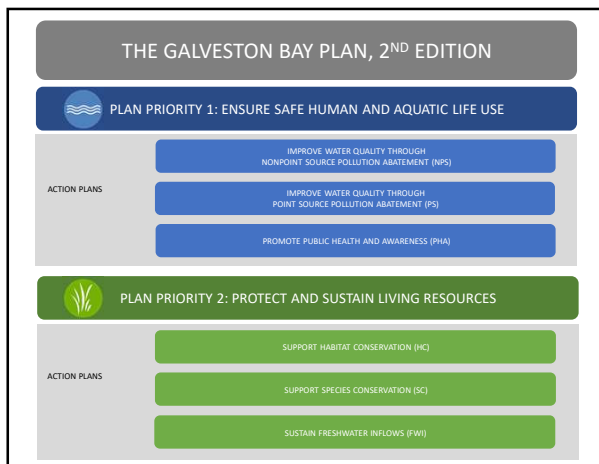
Upcoming Galveston Bay Council Meeting Dates: April 18, 2018; July 18, 2018; October 17, 2018. Meetings are held on the third Wednesday of the quarter from 9:30am – 12:30pm. If there are known conflicts, Council members are encouraged to propose alternate dates to the Council.



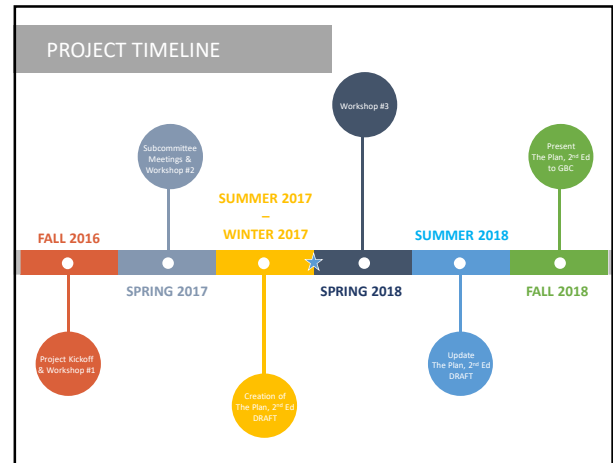


COMPARING THE TWO PLANS

	The Galveston Bay Plan (1995)	The Galveston Bay Plan, 2 nd Edition (2018)
Priority Issues	17	13
Action Plans	10	10
Actions	82	38



SAMPLE ACTION		ADDITIONAL PLAN PRIORITY REFERENCES Actions relevant to multiple Plan Priorities will be indicated by icon.	ACTION NAME
ACTION NUMBER	NPS-1		OBJECTIVE Desired outcome of the Action.
ACTION DESCRIPTION Support Watershed-based Plan Development and implementation. Develop and implement local watershed-based plans (SWP) with local partners and stakeholders.		ACTION DESCRIPTION A brief description of the activity(s) to be carried out under the Action.	
ACTION LOCATION		IMPLEMENTATION COST	
MEASURES Measurable outcome(s) used to gauge whether the Action has been achieved.	OUTPUTS Identifies important milestones and when each milestone will be accomplished.		
POTENTIAL IMPLEMENTERS		POTENTIAL IMPLEMENTERS	
Watershed Councils, County, School Districts County of Brazoria, Galveston Bay Foundation Houston Advanced Research Center Houston-Galveston Area Council		Texas A&M AgriLife Extension Texas Department of Transportation Texas Parks and Wildlife Department Texas State Land and Water Conservation	
REFERENCES		REFERENCES	
100% Plan Reference: NPS-1, NPS-2, NPS-3, NPS-4, NPS-5, NPS-6, NPS-7, NPS-8, NPS-9, NPS-10, NPS-11, NPS-12, NPS-13, NPS-14, NPS-15, NPS-16, NPS-17, NPS-18, NPS-19, NPS-20, NPS-21, NPS-22, NPS-23, NPS-24, NPS-25, NPS-26, NPS-27, NPS-28, NPS-29, NPS-30, NPS-31, NPS-32, NPS-33, NPS-34, NPS-35, NPS-36, NPS-37, NPS-38, NPS-39, NPS-40, NPS-41, NPS-42, NPS-43, NPS-44, NPS-45, NPS-46, NPS-47, NPS-48, NPS-49, NPS-50, NPS-51, NPS-52, NPS-53, NPS-54, NPS-55, NPS-56, NPS-57, NPS-58, NPS-59, NPS-60, NPS-61, NPS-62, NPS-63, NPS-64, NPS-65, NPS-66, NPS-67, NPS-68, NPS-69, NPS-70, NPS-71, NPS-72, NPS-73, NPS-74, NPS-75, NPS-76, NPS-77, NPS-78, NPS-79, NPS-80, NPS-81, NPS-82, NPS-83, NPS-84, NPS-85, NPS-86, NPS-87, NPS-88, NPS-89, NPS-90, NPS-91, NPS-92, NPS-93, NPS-94, NPS-95, NPS-96, NPS-97, NPS-98, NPS-99, NPS-100.		SAP Reference: SAP-1, SAP-2, SAP-3, SAP-4, SAP-5, SAP-6, SAP-7, SAP-8, SAP-9, SAP-10, SAP-11, SAP-12, SAP-13, SAP-14, SAP-15, SAP-16, SAP-17, SAP-18, SAP-19, SAP-20, SAP-21, SAP-22, SAP-23, SAP-24, SAP-25, SAP-26, SAP-27, SAP-28, SAP-29, SAP-30, SAP-31, SAP-32, SAP-33, SAP-34, SAP-35, SAP-36, SAP-37, SAP-38, SAP-39, SAP-40, SAP-41, SAP-42, SAP-43, SAP-44, SAP-45, SAP-46, SAP-47, SAP-48, SAP-49, SAP-50, SAP-51, SAP-52, SAP-53, SAP-54, SAP-55, SAP-56, SAP-57, SAP-58, SAP-59, SAP-60, SAP-61, SAP-62, SAP-63, SAP-64, SAP-65, SAP-66, SAP-67, SAP-68, SAP-69, SAP-70, SAP-71, SAP-72, SAP-73, SAP-74, SAP-75, SAP-76, SAP-77, SAP-78, SAP-79, SAP-80, SAP-81, SAP-82, SAP-83, SAP-84, SAP-85, SAP-86, SAP-87, SAP-88, SAP-89, SAP-90, SAP-91, SAP-92, SAP-93, SAP-94, SAP-95, SAP-96, SAP-97, SAP-98, SAP-99, SAP-100.	



PUBLIC COMMENT PERIOD

OPEN HOUSE FOR PUBLIC COMMENT

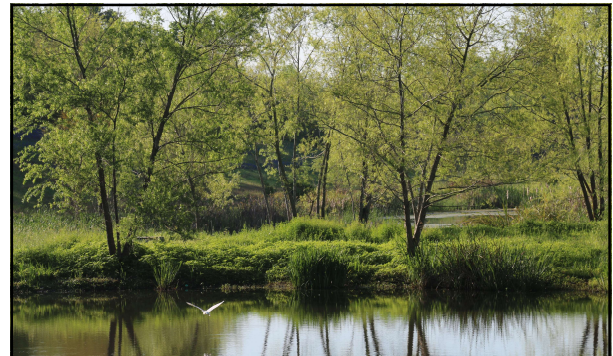
March 5, 2018
4 – 7 p.m.

Texas A&M AgriLife Extension - Galveston
4102-B Main St
La Marque, TX 77568

ONLINE FORUM FOR PUBLIC COMMENT

Opens March 5, 2018 at 4 p.m.
Closes April 4, 2018 at 4 p.m.

www.GalvestonBayPlan.org/Comments



www.GalvestonBayPlan.org

E-mail Kathy.Janhnen@h-gac.com with questions.



FISCAL YEAR (FY) 19 GBEP FUNDING

- Funding estimates based on FY18 levels
 - Salary, fringe & indirect levels subject to change
- Federal
 - \$1,200,000 §320 CWA Funding
 - Comes "pre-matched" by TCEQ (1:1)
 - \$600,000 from TCEQ, \$600,000 from EPA
- State
 - \$272,113



FUNDING ESTIMATES FOR FY 19

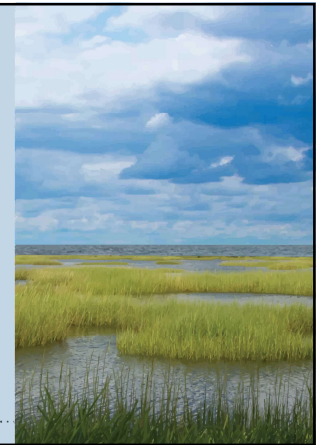
Funding Type	Federal (CWA §320)	State	Total
Total Funding	\$ 1,200,000	\$ 272,113	\$ 1,472,113
Administration*	\$ (644,686)	\$ (35,271)	\$ (679,957)
Remaining	\$ 555,314	\$ 234,842	\$ 790,156

*Administration costs include salary, fringe, indirect, travel, and programmatic administrative costs.



FY 19 PROPOSED PROJECTS

See spreadsheet



FY 19 Balanced Budget			
Category	Grantee	State Funding	Federal Funding
Programmatic Costs			
Salaries, Fringe, and Indirect	N/A	\$ -	\$ 644,686.00
General Operational Costs	N/A	\$ 27,324.00	\$ 7,947.00
Website Hosting & Maintenance (3 websites)	Wilkins Group	\$ 4,789.00	\$ -
Estuary Resilience Assessment (ERA) Report	TBD	\$ -	\$ 30,000.00
Walter Mickey Leland Summer Intern	N/A	\$ -	\$ 7,500.00
WRI			
Conservation Assistance Program	TBD by RWGA	\$ -	\$ 400,000.00
Dollar Bay/Moore Lake Wetland Restoration and Protection	GBF thru GLO or Texas City	\$ -	\$ 125,000.00
GFT Freshwater Wetland Restoration at USFWS Aransas / ABMC Hyacinth	Texas AgriLife and ABMC	\$ 42,500.00	\$ -
Clear Creek Riparian Restoration	BPA thru Harris County Pct 5	\$ 32,500.00	\$ -
PPE			
Trash Bait	H-GAC	\$ -	\$ 15,000.00
Know Your Watershed	UHCL	\$ -	\$ 38,345.00
Blackhawk Park Coastal Prairie Restoration & Education Project	City of Houston	\$ -	\$ 13,600.00
Galveston Seawall Recycling	Artus Boat thru Galveston Island Parks Board of Trustees	\$ -	\$ 18,430.00
WSQ			
Bacteria Source Tracking (Previously Approved FY 18-20 Project)	Texas Water Resources Institute	\$ -	\$ 80,000.00
Green Infrastructure For Texas (GIFT) Stormwater Wetlands	Texas AgriLife	\$ -	\$ 37,500.00
Nutrient and Sediment Monitoring of the Lower San Jacinto River	USGS	\$ 40,000.00	\$ -
Highland Bayou Watershed Protection Plan (Contingent on NPS project)	Texas AgriLife	\$ -	\$ 48,000.00
WBE			
Seabird Evaluation (Previously Approved FY 18-19 Project)	OSD	\$ -	\$ 36,430.00
Characterization of the Influence of Freshwater Inflow on the Trinity River Delta Inflow	UHCL	\$ -	\$ 18,000.00
Galveston Bay Essential Oyster Reef Mapping and Analysis	UH	\$ -	\$ 64,580.00
FY 2019 Funding Requests		\$ 272,113.00	\$ 1,200,000.00
FY 2018 Funding Allocation		\$ 272,113.00	\$ 1,200,000.00
Difference		\$ 0.00	\$ 0.00

FY 19 PROGRAMMATIC PROJECTS



1. ESTUARY RESILIENCE ASSESSMENT (ERA)

Lead: TBD

Proposed Amount: \$30,000 (Federal)

Description: This project will assess the goals, objectives and actions in The Galveston Bay Plan (GBP) against a series of coastal resilience criteria. The final output of the project will be a companion document to the GBP and will provide resiliency adaptation considerations for implementers of the GBP. The document will be developed in coordination with subject matter experts and/or members of the Galveston Bay Council (GBC) and its committees through workshops and/or via existing GBC meeting structures. The project will follow the requirements identified in the Environmental Protection Agency's (EPA) National Estuary Program (NEP) Funding Guidance Document.



2. MICKEY LELAND ENVIRONMENTAL INTERNSHIP PROGRAM (MLEIP)

Proposed Amount: \$7,500

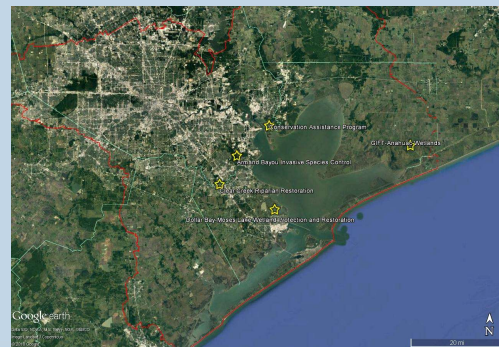
Description: The GBEP program manager will work with a summer intern for up to 12 weeks to complete a project that implements the Galveston Bay Plan.



FY 19 NATURAL RESOURCES USES (NRU) PROJECTS



FY19 NRU PROJECT OVERVIEW



NRU 1. CONSERVATION ASSISTANCE PROGRAM

Lead: TBD by Request for Grant Activities (RFGA)

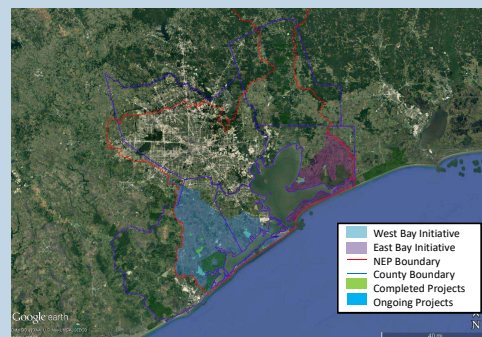
Proposed Amount: \$100,000 (Federal)

Description: The overall goal of the CAP is to support GBEP and its partners' efforts to preserve coastal habitats to protect the long-term health and productivity of Galveston Bay. CAP will continue to accomplish these goals by:

- Identifying priority conservation properties with the help and consensus of conservation partners
- Building funding strategies through grant identification, grant writing, and fundraising
- Working with willing sellers to negotiate fee simple or conservation easement transactions
- Carrying out legal, title, and other due diligence transaction support
- Finalizing the sale and transfer of title to a third party organization or government entity



1. CONSERVATION ASSISTANCE PROGRAM



NRU 2. DOLLAR BAY-MOSES LAKE WETLANDS RESTORATION & PROTECTION

Lead: Galveston Bay Foundation thru Interagency Partner

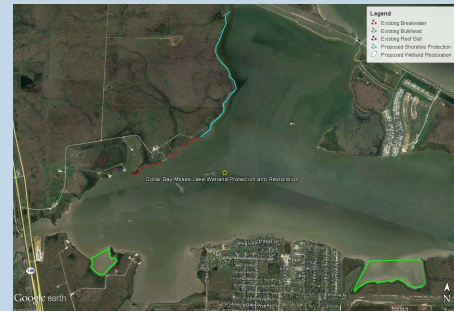
Proposed Amount: \$125,000 (State)

Description: The Dollar Bay-Moses Lake Wetlands Restoration & Protection project intends to protect and restore coastal (estuarine emergent) wetlands within the Moses Lake and Dollar Bay complex, a 2-mile by 4-mile tidally influenced waterbody on the west side of Galveston Bay in Galveston County, Texas.

To accomplish this goal, the GLO, Galveston Bay Foundation, and project partners have identified objectives that include 1) protecting up to 7,000 feet of vulnerable shoreline and adjacent habitat along the western shoreline of Moses Lake from continued erosion and habitat conversion adjacent to TNC's Texas City Prairie Preserve property and 2) restoring an estimated 70 acres of degraded estuarine marsh habitat in Dollar Bay to intertidal and high marsh complex.



NRU 2. DOLLAR BAY-MOSES LAKE WETLANDS RESTORATION & PROTECTION



NRU 3. GIFT-ANAHUAC FRESHWATER WETLAND RESTORATION / ARMAND BAYOU INVASIVE SPECIES CONTROL

Lead: Texas AgriLife Extension/Armand Bayou Nature Center

Proposed Amount: \$42,500 (State)

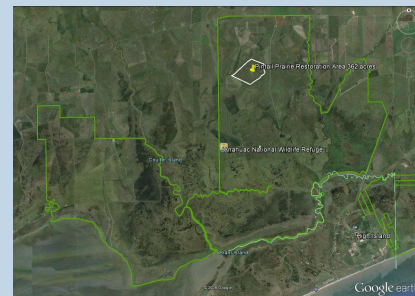
Description: The project goal is to support the freshwater wetland restoration component of AgriLife's Green Infrastructure for Texas initiative. Funding from the Estuary Program would specifically support the initial survey work for Phase 1 of the proposed restoration (e.g. mapping of site and creating digital overlays).

The proposed restoration project at Anahuac National Wildlife Refuge includes the restoration of 320 acres of fallow farm field to prime freshwater wet prairie habitat. Phase I of the proposed restoration will include necessary background work (e.g. mapping of site and creating digital overlays) and the initial survey work.

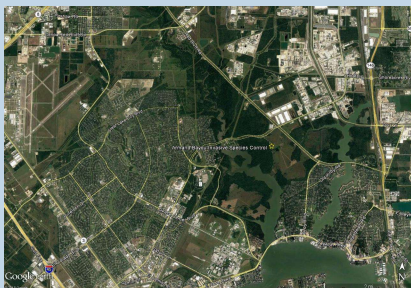
Additionally, freshwater invasive species control has been added to the scope of work.



NRU 3. GIFT-ANAHUAC FRESHWATER WETLAND RESTORATION / ARMAND BAYOU INVASIVE SPECIES CONTROL



NRU 3. GIFT-ANAHUAC FRESHWATER WETLAND RESTORATION / ARMAND BAYOU INVASIVE SPECIES CONTROL



NRU 4. CLEAR CREEK RIPARIAN RESTORATION

Lead: Bayou Preservation Association thru Harris County Precinct 1

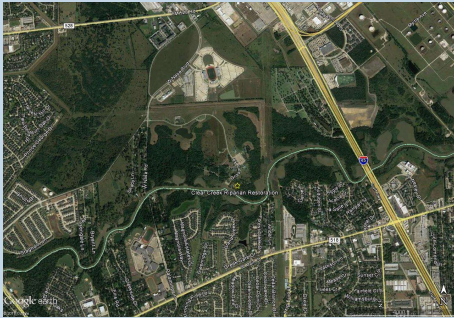
Proposed Amount: \$32,500 (State)

Description: The objective of the Clear Creek Riparian Restoration project is to restore riparian forested areas along Clear Creek, by removing invasive, exotic species on 34 acres at Challenger Seven Memorial Park, in Harris County. The project would start in the fall of 2018 and be conducted over two years. Challenger Seven Memorial Park has extensive forested habitat (about 50 percent of the park's 326 acres), with much of it experiencing degradation by invasive, exotic species. This project will focus on removal of those invasive exotics within a 34-acre riparian band of about 250 feet of forest along Clear Creek and its back bays.

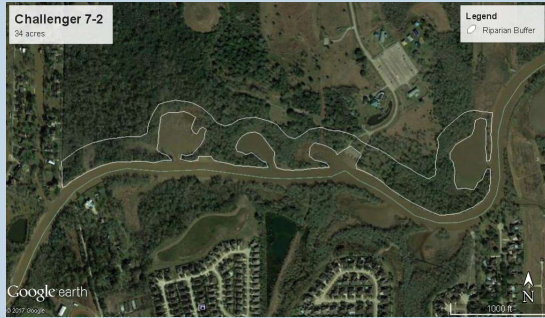
The project will start and end with a rapid assessment of the status of invasive species (e.g., density or percent cover) in the project area. A "first clearing" of invasive species will be conducted over 40 to 50 event days per year. The "first clearing" will be followed by a "mop-up" at each location, to achieve approximately 90% removal of invasive species in the targeted areas.



NRU 4. CLEAR CREEK RIPARIAN RESTORATION



NRU 4. CLEAR CREEK RIPARIAN RESTORATION



FY19 WATER AND SEDIMENT QUALITY (WSQ) PROJECTS



WSQ 1. BACTERIAL SOURCE TRACKING (BST) ON TRIBUTARIES OF TRINITY AND GALVESTON BAYS

Lead: Texas Water Resources Institute (TWRI)

Proposed Amount: \$80,000 per year for 3 years

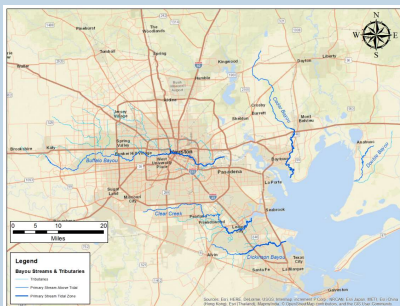
Description: Through this project, a water quality monitoring regime will be employed that will help decisions makers make appropriate recommendations for addressing the bacteria impairments in Buffalo, Double, Cedar, and Dickinson Bayous and Clear Creek.

- Monthly sampling conducted at one site on each waterbody for 12 months
- Field parameters collected - pH, temperature, conductivity, dissolved oxygen
- Conduct library-dependent BST and analyze E. coli isolates
- TWRI will collect approximately 75 known source samples from the local watersheds to improve the accuracy of the BST results

Approved last year for three years. FY19 is the second year of funding.



WSQ 1. BACTERIAL SOURCE TRACKING (BST) ON TRIBUTARIES OF TRINITY AND GALVESTON BAYS



WSQ 2. GREEN INFRASTRUCTURE FOR TEXAS (GIFT) – STORMWATER TREATMENT WETLANDS

Lead: Texas AgriLife Extension Service

Proposed Amount: \$37,500 (Total funding for two years - \$75,000)

Description: The goal of this project is to support the stormwater treatment wetlands component of GIFT. The three stormwater wetlands that will be the focus of this project are:

- 8500 sf basin on the MD Anderson Cancer Center campus in the Texas Medical Center
- 3.5 acre basin on the Brazosport College campus in Lake Jackson
- 5 acre wetland at Exploration Green Recreation Area in Clear Lake City

The additional funding will be used for planting Phase II and design plans for Phase III at Exploration Green. At MD Anderson groundbreaking for a third site on the West Campus will take place in late 2018. At the Brazosport site, planting the stormwater wetland will take place in FY19.



WSQ 3. NUTRIENT AND SEDIMENT MONITORING OF THE SAN JACINTO RIVER

Lead: United States Geological Survey (USGS)

Proposed Amount: \$40,000 (\$80,000 for two years)

Description:

- USGS will be collecting water-quality samples in the lower reaches of the San Jacinto River over a range of hydrologic conditions to improve our understanding of the variability of nutrient and sediment concentrations in freshwater inflows from the San Jacinto River into Galveston Bay
- Developing an index velocity rating and surrogate relations in the San Jacinto River would complement the data currently collected in the Trinity River, providing a more complete picture of the volume and water-quality in inflows to Galveston Bay.
- Recommended by both M&R and WSQ Subcommittees

With the second year of funding, the USGS can more than double the number of samples which will increase both precision and accuracy.



WSQ 4. HIGHLAND BAYOU WATERSHED PROTECTION PLAN

Lead: Texas AgriLife Extension Service

Proposed Amount: \$48,000 (for one year)

Description: This project will update the Highland Bayou Watershed Protection Plan to include load reduction estimates which incorporate flow data for both bacteria and dissolved oxygen, and shepherd the WPP through the TCEQ and EPA Region 6 approval process.

- Coordinate with Texas Institute for Applied Environmental Research (TIAER) to estimate existing and allowable loadings of bacteria and their connection to DO levels from curves and historical data.
- Incorporate load reduction results and propose alternative management measure scenarios to update the WPP document.
- Facilitate at least four meetings for stakeholder input to review updated load reductions and management measures.
- Facilitate a public meeting/open house to update members of the public about the WPP.
- Funding will be dependent on successful flow data and dissolved oxygen analysis.



FY19 MONITORING AND RESEARCH (M&R) PROJECTS



M&R 1. SEAFOOD EVALUATION IN A PORTION OF GALVESTON BAY

Lead: Department of State Health Services

Proposed Amount: \$36,426 (\$99,375 total for two years)

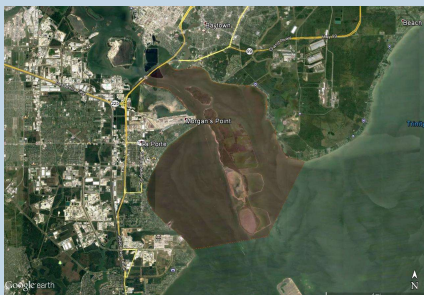
Description: The goal of this project is to evaluate the risk associated with consumption of fish and crabs from a portion of Galveston Bay.

- Advisory area located below Hwy 146 down to a line from Red Bluff Point to five Mile Pass to Houston Pass
 - Includes Tabb's and Barnett Bay - regularly fished
 - Advisory for catfish, blue crabs and spotted Seatrout for PCBs and Dioxins
- Sample analysis, travel, fuel and indirect cost will be funded by the grant.

Approved last year for two years. FY19 is the second year of funding.



M&R 1. SEAFOOD EVALUATION IN A PORTION OF GALVESTON BAY



M&R 2. CHARACTERIZATION OF THE INFLUENCE OF FRESHWATER INFLOW ON THE TRINITY RIVER DELTA INDICATORS

Lead: University of Houston at Clear Lake (UHCL)/Environmental Institute of Houston (EIH)

Proposed Amount: \$18,000 (\$60,000 total for two years)

Description: Spatial and temporal trends in populations of *Rangia* and *Vallisneria* remain poorly documented within the shallow portions of the Trinity River delta. The purpose of this project is to conduct a comprehensive study of the influence of freshwater inflow on the salinity regime and response of multiple freshwater indicator fauna including Atlantic *Rangia* and Wild Celery. This study includes two components:

- 1) Establishment of a network of shallow automated salinity monitoring sites; and
- 2) An on the ground inventory of submerged aquatic vegetation and *Rangia* clams

The second year of funding will allow for six full growing seasons of monitoring, add georeferenced photodocumentation of each sampling site, and evaluate the effect of Harvey on these indicators.



M&R 3. GALVESTON BAY INTERTIDAL OYSTER REEF MAPPING AND ANALYSIS

Lead: University of Houston (Black Cat GIS and Biological Services and Gulf Coast Bird Observatory)

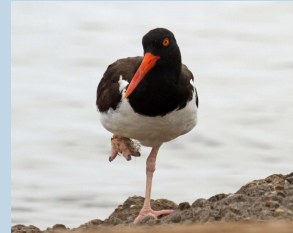
Proposed Amount: \$64,580

Description: This project seeks to create a complete GIS database of oyster shell reef habitat in Galveston Bay while simultaneously assessing intertidal oyster population dynamics and community structure on selected reefs.

- Create GIS shapefiles from orthoimagery to locate and map intertidal oyster reefs;
- Ground-truth a sub sample of locations to validate the analysis and collect current elevation data with a sub-meter accuracy GPS unit;
- Assess Intertidal oyster populations via collecting data on oyster abundance, size demography, reef structure, and oyster condition; and
- Creation of online StoryMap.



FY 19 PUBLIC PARTICIPATION & EDUCATION (PPE) PROJECTS



PPE 1. RIVER, LAKES 'N BAYOUS TRASH BASH

Lead: Houston-Galveston Area Council

Proposed Amount: \$15,000

Description: Trash Bash is the largest single-day waterway cleanup in the state of Texas, with 15 sites across the region and 4,000–5,000 volunteers annually. The scale and scope of the event requires year-round administration and coordination. GBEP funds would be used to support the event coordinator's position as well as printing and education materials.



PPE 2. KNOW YOUR WATERSHED EDUCATORS SUMMER INSTITUTE

Lead: University of Houston Clear Lake

Proposed Amount: \$38,341

Description: To provide environmental education content for teachers to incorporate into their current curriculum resulting in an increase in student knowledge and understanding of their community and place within their watershed. And to provide content and support for administrators which will assist classroom teachers implementing environmental and science education.

- 8-day summer institute for classroom teachers to provide experiences that demonstrate the importance of watershed benefits, watershed definition, watershed location, and protection.
- Provide field experiences such as site visits and water quality testing.
- Provide curriculum training and materials.
- Targeting 30 classroom teachers for grades 5-12 in the Houston-Galveston region with a special emphasis on Dickinson, Clear Creek and Pasadena ISDs.
- One-day symposium for local school administrators addressing the importance and benefits of environmental education in the classroom.



PPE 3. BLACKHAWK PARK COASTAL PRAIRIE RESTORATION & EDUCATION PROJECT

Lead: Houston Parks and Recreation Department

Proposed Amount: \$53,600

Description: A partnership between the City of Houston Parks and Recreation Department, and the Student Conservation Association (SCA).

- Approximately 10-acre portion of Black Hawk Park
- Management activities include:
 - Removal of invasive species, install native plants.
 - Trash and debris removal.
 - Educational signage at trail head and throughout trail to include the Back the Bay message and logo.
 - Include community events for planting native grasses, native and invasive plant species identification.



PPE 4. SEAWALL RECYCLING

Lead: Galveston Island Park Board of Trustees

Proposed Amount: \$18,420

Description: This project is a partnership with the Galveston Island Park Board of Trustees and Artist Boat and will provide recycling opportunities along approximately 6 miles of Galveston's historic Seawall, which will reduce litter that could become marine debris.

- Purchase 20 recycling cans and place at Seawall bus stops and one, six-compartment recycle station that can be moved based to areas of highest need.
- The Back the Bay message and logo will be incorporated on the recycling cans.
- Project partners are the Marine Debris Task Force, a collective of various groups including Artist Boat, Texas General Land Office, Turtle Island Restoration Network, Galveston Bay Foundation, NOAA-Flower Garden Banks National Marine Sanctuary.



FY 19 Balanced Budget			
Category	Grantee	State Funding	Federal Funding
Programmatic Costs			
Salaries, Fringe, and indirect	N/A	\$ -	\$ 644,686.00
General Operational Costs	N/A	\$ 27,324.00	\$ 7,947.00
Website Hosting & Maintenance (3 websites)	Wilkins Group	\$ -	\$ -
Estuary Resilience Assessment (ERA) Report	TBD	\$ -	\$ 30,000.00
GGP Mickey Leland Summer Intern	N/A	\$ -	\$ 7,500.00
NRU			
Conservation Assistance Program	TBD by MFGA	\$ -	\$ 100,000.00
Dollar Bay/Moses Lake Wetland Restoration and Protection	GGF thru GLO or Texas City	\$ 125,000.00	\$ -
GFTT Freshwater Wetland Restoration at LRFWS Anahuac / ABNC Hyacinth	Texas AgriLife and ABNC	\$ 40,000.00	\$ -
Clear Creek Riparian Restoration	BPA thru Harris County PCL 1	\$ 50,500.00	\$ -
PPE			
Trash Bash	H-GAC	\$ -	\$ 15,000.00
Know Your Watershed	UHCL	\$ -	\$ 38,341.00
Blackhawk Park Coastal Prairie Restoration & Education Project	City of Houston	\$ -	\$ 53,000.00
Galveston Seawall Recycling	Artist Boat thru Galveston Island Parks Board of Trustees	\$ -	\$ 18,420.00
WSQ			
Bacteria Source Tracking (Previously Approved FY 18-20 Project)	Texas Water Resources Institute	\$ -	\$ 80,000.00
Green Infrastructure For Texas (GIFT) Stormwater Wetlands	Texas AgriLife	\$ -	\$ 37,000.00
Nutrient and Sediment Monitoring of the Lower San Jacinto River	USGS	\$ 40,000.00	\$ -
Highland Bayou Watershed Protection Plan (contingent on NPS project)	Texas AgriLife	\$ -	\$ 48,000.00
MMR			
Seafloor Evaluation (Previously Approved FY 18-19 Project)	OSDS	\$ -	\$ 36,426.00
Characterization of the Influence of Freshwater Inflow on the Tiney River Delta Indicators	UHCL	\$ -	\$ 18,000.00
Galveston Bay Intertidal Oyster Reef Mapping and Analysis	UH	\$ -	\$ 64,580.00
FY 2019 Funding Requests		\$ 270,113.00	\$ 1,200,000.00
FY 2018 Funding Allocation		\$ 270,113.00	\$ 1,200,000.00
Difference		\$ 0.00	\$ 0.00

FY 19 Balanced Budget			
Category	Grantee	State Funding	Federal Funding
Programmatic Costs			
Salaries, Fringe, and Indirect	N/A	\$ -	\$ 644,686.00
General Operational Costs	N/A	\$ 27,324.00	\$ 7,947.00
Website Hosting & Maintenance (3 websites)	Wilkins Group	\$ 4,789.00	\$ -
Estuary Resilience Assessment (ERA) Report	TBD	\$ -	\$ 30,000.00
GBEP Mickey Leland Summer Intern	N/A	\$ -	\$ 7,500.00
NRU			
Conservation Assistance Program	TBD by RFGA	\$ -	\$ 100,000.00
Dollar Bay/Moses Lake Wetland Restoration and Protection	GBF thru GLO or Texas City	\$ 125,000.00	\$ -
GIFT Freshwater Wetland Restoration at USFWS Anahuac / ABNC Hyacinth	Texas Agrilife and ABNC	\$ 42,500.00	\$ -
Clear Creek Riparian Restoration	BPA thru Harris County Pct 1	\$ 32,500.00	\$ -
PPE			
Trash Bash	H-GAC	\$ -	\$ 15,000.00
Know Your Watershed	UHCL	\$ -	\$ 38,341.00
Blackhawk Park Coastal Prairie Restoration & Education Project	City of Houston	\$ -	\$ 53,600.00
Galveston Seawall Recycling	Artist Boat thru Galveston Island Parks Board of Trustees	\$ -	\$ 18,420.00
WSQ			
Bacteria Source Tracking (Previously Approved FY 18-20 Project)	Texas Water Resources Institute	\$ -	\$ 80,000.00
Green Infrastructure For Texas (GIFT) Stormwater Wetlands	Texas AgriLife	\$ -	\$ 37,500.00
Nutrient and Sediment Monitoring of the Lower San Jacinto River	USGS	\$ 40,000.00	\$ -
Highland Bayou Watershed Protection Plan (contingent on NPS project)	Texas AgriLife	\$ -	\$ 48,000.00
M&R			
Seafood Evaluation (Previously Approved FY 18-19 Project)	DSHS	\$ -	\$ 36,426.00
Characterization of the Influence of Freshwater Inflow on the Trinity River Delta Indicators	UHCL	\$ -	\$ 18,000.00
Galveston Bay Intertidal Oyster Reef Mapping and Analysis	UH	\$ -	\$ 64,580.00
FY 2019 Funding Requests		\$ 272,113.00	\$ 1,200,000.00
FY 2018 Funding Allocation		\$ 272,113.00	\$ 1,200,000.00
Difference		\$0.00	\$0.00