GALVESTON BAY ESTUARY PROGRAM

FINAL - Galveston Bay Council (GBC) Meeting Minutes – April 17, 2019

Attendees:

Galveston Bay Council Chair: Helen Paige (Marinas)

Galveston Bay Council Vice-Chair: Glenn Clingenpeel (Trinity River Authority)

Estuary Program Staff Lead: Lisa M. Marshall, Galveston Bay Estuary Program (GBEP)

The April 17, 2019 quarterly GBC meeting was held at Harris-Galveston Subsidence District, 1660 West Bay Area Blvd., Houston, Texas, from 9:30 AM to 12:30 AM.

Members Present: Scott Alford, Christine Bergren, Caryn Brooks, Andrea Catanzaro, Glenn Clingenpeel, Winfred Colbert, Patrick Cuty, Lori Hamilton, Rebecca Hensley, John Huffman, Brian Koch, Audrey Kuklenz, Kristin Lambrecht, Mike Lee, Garry McMahan, Helen Paige, Nancy Parra, Ana Partin, Pamela Plotkin, Hanadi Rifai, Caimee Schoenbaechler, Ronnie Schultz, Rusty Senac, Linda Shead, Sharron Stewart, Bob Stokes, Lori Traweek, Tracy Woody

Members Not Present/Delegates: Jeff DallaRosa, Albert Gonzales, Cruz Hinojosa, Jace Houston*, Doug Jacobson, Will Nipper*, Russ Poppe*, Taylor Rieck*, Mary Beth Stengler, Rusty Swafford, Jeff Taebel, Kirk Wiles
(*=Member designated a proxy)

Proxies Present (Council member absent/designated proxy): Jace Houston/Kim Wright, Will Nipper/Maria Valdez, Russ Poppe/Glenn Laird, Melissa Porter/Dianna Ramirez, Taylor Rieck/Shane Bonnet, Jeff Taebel/Todd Running

Current Vacancies: None

Other Attendees: Richard Chapin, Brian Gettinger**,** Debra Harper, Jace Tunnell, Kerry Niemann

Additional GBEP Staff present: Mary Stiles, Cynthia Clevenger, Lindsey Lippert, Kristen McGovern, Christian Rines, Patricia Thompson

Call to Order: Introduction of Members and Delegates

Helen Paige called the meeting to order and requested introductions and confirmed a quorum with Lisa Marshall.

Action Item: Approval of January 16, 2019 Meeting Minutes

Ms. Paige opened the meeting with approval of the minutes. A motion was requested for approval. Rusty Senac moved to approve the minutes, and Nancy Parra seconded the motion and clarified that the minutes were approved with corrections.

Report of the Program (Lisa Marshall):

Ms. Marshall reported to the GBC that the Galveston Bay Estuary Program has a full staff and that they have a great team that she is very excited with which to work.

Ms. Marshall read the biographies for Christian Rines and Patricia Thompson.

- Christian Rines started in January and is the new Water and Sediment Quality Coordinator. Christian graduated from the University of West Florida with a B.S. in Marine Biology. Before transferring to GBEP, she began with the TCEQ in May 2018 as an Environmental Investigator out of the Houston Region 12 Office. Before moving to Texas, she worked for the State of Florida for four years in the coordination of coastal restoration and beach nourishment projects, and also consulted with private and public stakeholders to help design and implement plans for the management of coastal habitat and protected species. Prior to that, Christian worked as a consultant for numerous coastal oil exploration projects and the Deepwater Horizon oil spill. She was also contracted by the EPA to conduct research in an assessment of Gulf Coast estuaries. Christian enjoys fly fishing, traveling, and running.
- Patricia Thompson is the new Technical and Quality Program Coordinator and just started in March. She is a broadly trained biologist. Her most recent work with the Texas Parks and Wildlife Department focused on monitoring and management of aquatic invasive species (AIS) in creeks, rivers, and reservoirs throughout Texas. Patricia earned a B.S. in Fisheries and Wildlife from Michigan State University. She then got a job with the U.S. Geological Survey, where she worked on projects related to food web dynamics and the early life history of Great Lakes fishes. She went on to earn a M.S. in Wildlife and Fisheries and a graduate GIS certificate from West Virginia University, where she studied the habitat use and distribution of rare and endangered stream fishes. She then worked for the U.S. Fish and Wildlife Service on the early detection of aquatic invasive species in the Great Lakes region. Above all, Patricia has passion for understanding the natural world and is deeply committed to environmental stewardship. Patricia enjoys backpacking, birding, fishing, and spending time outdoors or near the water.

Ms. Marshall also announced:

- The TCEQ Commissioners approved The Galveston Bay Plan, 2nd Edition, The Comprehensive Conservation and Management Plan for the Galveston Bay Ecosystem (CCMP) and the GBC nominations on March 27th. The approval process went very well, and the Commissioners were very supportive.
- The EPA has completed their checklist for the CCMP Revision and have determined that the CCMP meets the requirements of the revision process; official approval should occur soon.
- In their June quarterly meetings, the subcommittees will be establishing their priorities for the fiscal year 2021 projects. GBC members should feel free to attend any of the meetings if they would like to get involved with the project development process. The dates for those meetings will be sent out soon.

Lastly, Ms. Marshall asked the GBC to state their name before speaking so the new staff members can place members' names with faces.

Report of the Chair (Helen Paige):

Ms. Paige thanked Linda Shead, Christine Bergren and Genevieve Genest (GBF) for attending the Commissioners' Agenda in support of the approval of the CCMP and the nominations for GBC members. To celebrate the approval of the CCMP, a cake we will be served during the break.

Ms. Paige announced an invitation to join them for lunch at Olive Garden after the meeting.

Presentation: Brian Gettinger, Freese and Nichols – "The Path Forward: Flood Tunnel"

Freese and Nichols proposes building a "Super Tunnel", a flood tunnel to move stormwater to the Bay more quickly during flood events. Current flood prevention measures in Houston focus on detention, but what Houston should start focusing on is conveyance.

In 1929 and 1935, there were two major floods in Houston that flooded Buffalo Bayou. These two events prompted the U.S. Army Corps of Engineers (USACE) to develop a flood control plan for the city of Houston in 1940. The plan included the creation of the Barker and Addicks Reservoirs, which were constructed and worked well for the city for years (until Hurricane Harvey). The original plan also included two canals that were never constructed due to WWII – one north of the city which would convey water to Lake Houston and one south of the city which would convey water to Galveston Bay. At the time the plan was written, in 1940, the population of Houston was ~300,000 people and the land on which the canals were to be constructed was predominantly rice fields. Now, due to urban sprawl and population growth, it would cost four to five billion dollars just to acquire the property to widen Buffalo Bayou. Therefore, it is no longer feasible to construct canals on land. The proposed alternative is to construct a tunnel underground.

Why should a tunnel be built now? As Benjamin Franklin said, "An ounce of prevention is worth a pound of cure". Houston should invest funding in a stormwater conveyance system to save the city from major damages (incurring major costs) during future major storms.

Disproving the myths of constructing a tunnel:

- Too expensive
    - Hurricane Harvey cost approximately 10-15 billion dollars in damages. This tunnel will prevent/mitigate such damage from future storms.
- Ground is not right
    - Technology now exists to excavate and construct the tunnel with the type of soil present in the Houston metro area. The tunnel would be 30-40 feet in diameter, 200 feet underground, and 23 miles long.
- Groundwater table is too high
    - The tunnel would be watertight.
- Never done it here before

- Houston is the only major metropolitan area in Texas that does not have a tunnel(s). Dallas, San Antonio and Austin all have one or more tunnels.

- Can't move enough water
    - The tunnel will move water quickly due to the elevation drop (drops 75 feet over 23 miles from inlet at Barker and Addicks Reservoirs to outlet at Houston Ship Channel). Gravity acts to push the water down and out; there is no pump station. As long as the tunnel is not clogged by sediment, it can move 10,000-15,000 cubic feet per second (cfs). During Hurricane Harvey, water from Buffalo Bayou was released into the Houston Ship Channel at 14,000 cfs.
    - The large diameter tunnel (30-40 feet) would also act as short-term detention, holding 30-50 million gallons of water per mile.

Tunnels are a project of last resort. It is needed in Houston because the city is too dense and widening Buffalo Bayou cannot work.

Key Tunneling Project Drivers:

- Urban constraints
    - The shafts would be two - three miles apart and about one acre each – cannot see, cannot smell.
- Minimize environmental impacts
    - There would be minimal impacts to the surface; project is easier to implement than surface projects (e.g. roads).
    - A subterranean easement would be required to go under property, but construction would not affect surface structures since it would be at least 150 feet underground.
- Minimize community impacts

How will the tunnel be built? There have been major technological advances in recent years. The machines can excavate clay, sand, and soft soil, and high groundwater is not an issue as the tunnel will be waterproof. Washington, D.C. has very comparable ground to us, and they have a subway system and are currently building a sewer/stormwater system. Machines are getting bigger; a 67-foot diameter prototype is currently being built. A 30 to 40-foot range machine will likely be used for this project, as they are lower risk. The Earth Pressure Balance Tunnel Boring Machine thrusts with hydraulic jacks to bore into the ground. There are many built-in sensors to assure proper operation as boring too hard can heave the ground and boring too easy can settle the ground.

A typical tunnel shaft is built with in situ concrete, isolating the groundwater and making the tunnel waterproof. It is a myth that tunneling is not possible in Houston. It may not have been possible 30 years ago but is now due to advances in technology.

Projected costs for Harris County are approximately 100 million per mile for a 23-mile long tunnel. How much have similar projects cost? Dallas' 35-foot diameter, five-mile-long tunnel cost $40 million per mile. Austin's 20 to 26-foot diameter, 1.5-mile long

tunnel cost $163 million. San Antonio's 24-foot diameter, three-mile-long tunnel cost $77 million per mile.

The proposed tunnel would start at Addicks and Barker Reservoirs and follow the I-10 corridor 150-180 feet under the south side of the highway to the Houston Ship Channel. In addition, it is proposed that short connector tunnels be built to Buffalo Bayou and White Oak Bayou to help reduce bank erosion and sedimentation in the bayous. Most channels in Houston are not very deep and have dirt sides. The tunnel intake elevation would be located at the uppermost portion of the more stable section of the channels and would prevent water from flooding into the upper portion of the channel, which is unstable and has potential for significant bank erosion. Flow would enter the tunnel once the channel reached a certain capacity, taking the channel out of flood stage. During periods of flooding, the tunnels and bayous would move water to the Houston Ship Channel in parallel conveyance. This could also work with other bayous such as Brays Bayou and Cypress Bayou.

Q (Rusty Senac): East Harris County's lifeline is pipelines. Previous work trying to incorporate drainage with large ditches had to be careful of pipelines. I love that the right of way is cheap. What permissions are needed to build?

A: It is easiest to use the same property owner if possible (e.g., I-10 is optimal because same property owner). A property survey will need to be completed, although at 150 feet in depth, there is no infrastructure except for water and oil wells. Oil fields will be avoided altogether. A close eye is kept on settling during excavation. Over 3/10th of an inch of settlement is enough to stop the project. Harris County wants proof that project <u>can</u> be done before talking about where.

Q (Hanadi Rifai): Why not just drain the bottom portion of the watershed? Why go all the way to the reservoirs?

A: The USACE says that storing such large amounts of water in the metro area is a high risk because they are draining so much. The concept would not transfer water between basins, just set up express lanes for water to get to Galveston Bay. During this research and development phase we are open to considering different connections.

Q (Hanadi Rifai): The reservoirs have never filled >40% and the lower watershed floods more. Why not just worry about the lower watershed?

A: There would be multiple collections along Buffalo Bayou, so would collect there even if reservoirs are not at capacity.

Q (John Huffman): What happens when an event in San Antonio and Austin pushes stagnant water out of their tunnels? What condition is the water in?

A: After a storm event, the water would be pumped out over five to seven days (would not want to leave in tunnel and potentially increase nutrient load). In Austin, the water is cycled.

In San Antonio, the tunnel stays full of water, but treated effluent moves in to keep the water in the tunnel moving. In Dallas, the tunnel is kept full against advisement. In Houston, the tunnel would be pumped dry after a storm event. But the tunnel also functions for short-term detention during the storm.

Q (Bob Stokes): What will be the locations of intake structures and standards for intake locations?

A: The plan is to use pre-existing detention facilities so that less sediment will enter the tunnel. Rakes will also be used to keep the screens clean. Over the past 20 years in San Antonio, the screens have been tested once per week and after storms to make sure there is no clogging.

Q (Hanadi Rifai): Other places there have been four inches of settlement. What about Houston? What about faults?

A: There are two faults located on the west side of the Houston metro area that move about ¼ to ½ inch per year. Crossing faults will require a different concrete lining system. There will be structural support areas with steel liners embedded in the concrete so that the tunnel cannot be damaged near fault crossings.

Q (Gilbert Herrera): What are the procedures if you hit a well that is not mapped or on planning documents?

A: It is possible that there are undocumented wells that were built over 150 years ago. A GIS study will be performed. In addition, a survey could be conducted using magnetometers that can detect steel in the ground.

Q (Gilbert Herrera): Are there any hydrogen sulfide concerns?

A: No, the water table is so high that toxic materials are not a major concern.

Q (?): What will they do with the excavated soil? (I not sure who inserted this, but I cannot locate their name anywhere – not on the guest list or attendance sheet

A: It could be barged. This is not a concern – usually if soil is free, someone wants it.

Q (Sharon Stewart): If the water hits the Houston Ship Channel and the levees are not high enough or strong enough, will the excess water hit the ship channel industrial area?

A: During Harvey, water flow in the Houston Ship Channel was 100,000 cfs, so this will not be a problem. Water that is already traveling to the Houston Ship Channel will just be getting there faster.

Q (Rusty Senac): Are the slides available?

A: Yes, I will send the slides and a YouTube video of the machine.

Q (Andrea Catanzaro): You mentioned divers, does it stay liquified?

A: Divers can only be out there for 10 to 15 minutes. The machine balances the earth's pressure and has a hyperbaric chamber. The material that comes out via conveyor belt has a toothpaste-like consistency. The material will be piled – if it is too wet, it will be dried before trucking or barging away.

Q (Bob Stokes): Proposed funding sources?

A: The Harris County Flood Control District has funded the preliminary study. Federal Emergency Management Agency could potentially help fund a large project like this. The USACE and the State of Texas are other possibilities. Almost all of these options would require a local match of 10-20%. I believe FEMA will be interested, as the project will mitigate damage payments for future floods.

Presentation: Jace Tunnel, Director, Mission-Aransas National Estuarine Research Reserve, University of Texas at Austin Marine Science Institute – "Hurdles with Nurdles: A Gulf-wide Citizen Science Project"

Nurdle Patrol is a citizen science project led by the Mission-Aransas National Estuarine Research Reserve at the University of Texas Marine Science Institute in Port Aransas, Texas. They are looking to gather information about where nurdles are located across the Gulf of Mexico, remove the nurdles from the environment, and create awareness about the nurdle issue to help find the source.

Nurdles are small plastic pellets and are the basis of everything plastic. It takes approximately 600 nurdles to make up a single plastic bottle. They are a low-density material and are typically found along the wrack line. Polyethylene varieties are the most common type found, but many other types of plastics are used in the production of nurdles. Most are clear or white but become yellow over time. The creation of plastic started in the 1940s, and the nurdles that are being found in the environment today could be more than 70 years old. Nurdles never breakdown.

Nurdles also absorb toxins from the environment, which can be deadly to animals that mistake these pellets for food. The EPA created a report in 1992 that estimated the number of animal species with nurdles in their intestinal tracts. Necropsies found nurdles in the intestinal tracts of nine different sea turtle species. Impacts are most commonly observed in fish, birds, and turtles.

There are studies being conducted looking at the potential toxicity of fish tissue and the human food web.

The Nurdle Patrol is coordinating efforts with the Gulf of Mexico states to compare data. Efforts are also being coordinated with a group in the United Kingdom, "The Great Nurdle Hunt." This team is working on locating the sources of nurdles and determining at which point(s) they are entering the environment. Gulf of Mexico data is now being incorporated into "The Great Nurdle Hunt" mapping system.

The group has developed an emergency response protocol like an oil spill response to deal with large nurdle releases from tanker trucks, rail cars and other shipping vessels. Other spills, such as large volume beach washups cannot be traced back to a responsible party and it is therefore difficult to coordinate cleanup. Mr. Tunnel mentioned that time is of the essence in cleanup efforts. Nurdles can become buried very quickly by windblown sand, high tides, beach rakers, foot traffic, and vehicular traffic, making it even more difficult to locate the small pellets.

Mr. Tunnel is working with manufacturers on efforts to keep nurdles out of the environment. He spoke about "Operation Clean Sweep," which is an industry-led initiative to ensure that manufacturers are transporting the pellets responsibly. In some cases, it is now possible to trace nurdles back to a particular manufacturer based solely on the size and color of the pellet, whereas in the past chemical analysis of the pellet was required. Nurdle hotspots have been identified in both Galveston Bay and Lavaca Bay, and the pellets could be coming from manufactures in the region. There are no manufactures in the Corpus Christi area, so more than likely, the pellets are coming from ships, vessels, and other transportation means.

Some of the solutions for the nurdle problem are:

- Follow the guidance of Operation Clean Sweep;
- Develop a database to link nurdles to manufacturers;
- Create chain of custody for nurdles being shipped;

- Stricter stormwater permits;
- Onsite spill containers;
- Mandatory BMP implementation;
- Quick accountability by plastic pellet industry; and
- At home, people can refuse, reduce, reuse, repurpose, recycle.

Future endeavors for the nurdle project are to create a new website for Nurdle Patrol and to expand partnerships as well as work with federal and state environmental agencies. The team will be traveling this May in the "Gulf Nurdle Expedition" to spread nurdle awareness and conduct surveys. Mr. Tunnel is also working with partners to create a Microplastics Science Team. The team is expecting to have a kickoff meeting mid-May.

Anyone can participate in the Nurdle Patrol surveys. Visit the Nurdle Patrol page on Facebook for more information. A YouTube training video has also been created for those interested in data collection.

Q (Glenn Clingenpeel) What is the half-life of nurdles?

A: They never fully breakdown and are always around.

Q (Gilbert Herrera) What is the percentage of nurdles compared to other plastics?

A: Other plastics outcompete by far, nurdles are a small percentage right now, but there is no industry accountability.

Q (Nancy Parra) Who cleans it up?

A: Trying to find sources. It would help if we could identify the responsible parties.

Q (Melissa Porter) Are there methods for cleanup?

A: There is some equipment. When the nurdles first spill and are consolidated it makes them easier to cleanup.

Q (Caimee Schoenbaechler) Where are the most citizen scientists?

A: North Padre Island and it is mostly volunteers. A teacher in the area has been taking students out to participate in cleanup for years.

Q (Pamela Plotkin) Is there anyone looking at fish and shellfish in Lavaca Bay?

A: The University of Texas Marine Science Institute, Texas A & M Corpus Christi currently has a project looking at juvenile fish and microplastics in Lavaca Bay and Cox Bay. Texas Parks and Wildlife Department also collects fish from different groups and slot sizes to look at microplastics.

Comment (Sharron Stewart) There are groups that already perform citizen science on the beach. You may want to contact Friends of Brazoria Refuge and there is a new group that formed that is related to the Matagorda Bay Foundation.

Q (?) After nurdles are collected, what do you do with them?

A: Keep the nurdles and use the collections to educate others or put them in the trash.

Q (Sharron Stewart) What about partnering with other beach cleanup programs?

A: Could tie in the 5-year study with the GLO "Adopt a Beach" Program.

Announcement: Patrick Cuty, U.S. Coast Guard – Intercontinental Terminal Company Deer Park Fire Status Update

Ms. Marshall announced the GBC was hoping to have a presentation by the Coast Guard, however, the presentation was not approved in time for the meeting. Instead Lori Hamilton from TCEQ and Mr. Cuty provided brief updates on the status of the ITC fires in Deer Park. Ms. Hamilton mentioned TCEQ is working hard to monitor air and water quality along with the EPA. Concentration levels are updated frequently on TCEQ's website. There is also an interactive collaborative "story map" between TCEQ and EPA at response.epa.gov/ITCTankFire. Mr. Cuty mentioned the uniformed command is working together with federal, state, and local partners and more information is located on the official website at ITCresponse.com. Mr. Cuty provided metrics on the cleanup, which can be found on the ITC response website.

Q (Sharron Stewart) How long will this continue?

A: A few more months. Waterside cleanup will continue for about two more weeks. Debris collection along the shorelines will be the last effort. There are about 20 barges that need to be cleaned and contaminated debris still needs to be removed. Cleanup at Tucker Bayou may take another month to complete.

Q (Rusty Senac) Is there a cost per barrel set aside for spill cleanup? Is the federal fund still around?

A: It is the Oil Spill Liability Trust Fund pays for the U.S. Coast Guard, state agencies, and NOAA. We use the fund for the initial response through the Emergency Fund, but the responsible party is billed and ends up paying the bulk of the cost for the cleanup.

Additionally, the Department of State Health Services has not received fish tissue samples back from analysis as of this meeting.

Council Members Roundtable: News and Announcements

Todd Running: Clean Rivers Program meeting is scheduled for April 23rd. Water Innovation Strategies of Excellence Award Ceremony, May 17th at Houston-Galveston Area Council Conference Room B, second floor, H-GAC will have their Bacteria Implementation Group Spring Meeting on June 4th from 1:00-3:30 located at H-GAC - 2nd Floor.

John Huffman: US Fish and Wildlife Service 35th Annual Crawfish Boil, April 25th from 5:00pm – 8:00pm located at Challenger 7 Park in Webster, please RSVP by Friday.

Brian Koch: West Fork workshop in Conroe May 18th focusing on resources for agricultural land owners to implement conservation practices**,** Riparian and Stream Ecosystems workshop for Cedar Bayou and Double Bayou will be on May 1st in Baytown.

Pamela Plotkin: Handouts – Homeowner's Handbook to Prepare for Coastal Natural Hazards and Texas Shores Magazine are provided if anyone would like to pick-up a copy**.**

Kerry Niemann- On behalf of the Water Quality Planning Division of the TCEQ I have the following updates to provide.

Re: RESTORE Bucket 1 (which is the Direct Component to strengthen resiliency, economy, and tourism): TCEQ RESTORE staff have been preparing federal applications for submission to the Treasury to receive grant awards for Bucket 1 funds. TCEQ will submit seven federal applications consisting of 23 of the 26 projects in the accepted Multiyear Implementation Plan. Each project will be included in one of the seven applications associated with the eligible activity that it was listed for under in the plan. Projects moving forward to the application phase were selected by then Commissioner Baker in consultation with the Office of the Governor. Approximately $97 million is currently available to Texas through Bucket 1.

Re: Bucket 2 (which is the Restoration Component to support coordination w/experts and elected officials): In December Director Baker conducted three public meetings along the coast to receive input from the public on priority issues along the coast, as well as Gulf-wide. The intent of these meetings was to gather information to inform Baker's discussion with the RESTORE Council members as they deliberate on the development of a planning framework document for the Gulf coast. A draft planning framework document is expected to be published by the RESTORE Council for public comment this Spring. The document will offer guidance for later discussions on the types of projects that could be considered for funding. Approximately $2.1 million is currently available to Texas through Bucket 2.

Re: Bucket 3 (which is the Spill Impact Component): On March 4th Director Baker received approval of the Initial State Expenditure Plan. The initial plan will focus on Hurricane Harvey recovery efforts and the distribution of approximately $31 million. Other plans will be developed in later years as additional Bucket 3 funds become available. Texas is expected to receive a total of $121 million through Bucket 3 by the end of 2031.

Detailed information on the public meetings and other Texas RESTORE Act activities can be found on the www.restorethetexascoast.org. website.

Regarding the TMDL Program:

1. The Lavaca River TMDL and Implementation Plan had its public comment mtg on February 21st.
2. The Oso Creek TMDL had its public comment mtg on February 26th.
3. The Navasota River TMDL and I-Plan had their public comment mtg on March 19th.

No public comments were received. Agenda for adoption and approval is expected to occur this summer.

Regarding the NPS Program: The Annual Report was approved by EPA and is available in electronic format on our website.

Regarding the 2016 Integrated Report: It was submitted to EPA for approval on November 14.

Regarding Water Quality Standards: A preliminary 30-day public comment period for the 2021 water quality standards was published on March 8 in the Texas Register.

Regarding the Clean Rivers Program: The calendar of Steering Committee Meeting dates may be accessed from the statewide Coordinated Monitoring Schedule. Meetings occur throughout the year and help to establish monitoring priorities.

Rebecca Hensley: Battleship Texas Park and the San Jacinto Battleground State Historic Site are both closed due to the ITC incident. It could be another two months before these sites are opened.

Lori Traweek: Trash Bash event was March 30th, there were plenty of volunteers and everything went well. Trash Bash has won several awards – Texas Environmental Excellence Award, Keep Houston Beautiful Mayor's Proud Partners Award, and the Gulf Guardian Award.

Dianna Ramirez: GLO's Natural Resiliency Plan is on the website. The GLO will host a Coastal Management Program grant application workshop in Galveston at the Rosenberg Library on May 15th. Additional meetings will be held in Corpus Christi on May 8th and South Padre Island on May 9th.

Patrick Cuty: Announced April 17th would be his last GBC meeting he will attend. Mr. Cuty is being transferred.

Public Comments:

Debora Harper with the City of Seabrook's Open Space and Trails Committee offered a meeting space at the city's event center located next to Pine Gully Park. It is a house and casita event center located next to Pine Gully; they would like to make it into a "natural facility" if anyone knows an organization/group that would be a good fit.

Ms. Paige announced if anyone has any ideas for presentations for the Council or information they would like to hear about, please let Ms. Marshall or Galveston Bay Estuary Program know.

Adjourn: Meeting was adjourned at 12:01 PM

Upcoming Galveston Bay Council Meeting Dates: July 17, 2019, October 16, 2019. Meetings are held on the third Wednesday of the quarter from 9:30am – 12:30pm. If there are known conflicts, GBC members are encouraged to propose alternate dates to the GBC.