MONITORING AND RESEARCH SUBCOMMITTEE
GALVESTON BAY COUNCIL

Meeting Minutes
Wednesday, March 13, 2024
9:30 a.m. – 11:30 a.m.

Subcommittee Chair: George Guillen, University of Houston Clear Lake (UHCL)

Subcommittee Vice Chair: Mike Lee, United States Geological Society (USGS)

Galveston Bay Estuary Program (GBEP) Representative: Jenelle Estrada

Call to Order, Introductions (In-person and Via Microsoft Teams)

Attendees: Anna Armitage (TAMUG), Jessica Casillas (HGAC), Jim Dobberstein (Lee College), Jessica Greiskopt (TPWD), George Guillen (UHCL), Amanda Hackney (BCGIS), Rileigh Hawk (TPWD), James Howard (TCEQ), Cassidy Kempf (HPARD), Naima Khan (TAMUC), Zulimar Lucena (USGS), Hui Liu (TAMUG), Vanessa Mintzer (GBF), Jack Newton (SJRA), Jenny Oakley (EIH-UHCL), Hanadi Rifai (UH), Maggie Sawyer (TIRN), Luke Travis (USGS), Kristi Fazioli (GBDFP), Matthew Abernathy (GBEP), Ellen Creecy (GBEP), Kari Howard (GBEP), Lindsey Lippert (GBEP), Lisa Marshall (GBEP), Christian Rines (GBEP).

Approval of December 13, 2023 meeting minutes – A motion to approve the minutes made by Amanda Hackney, seconded by George Guillen.

New business:

Bayou Blues: Mapping Marine Debris in the Lower Galveston Bay Watershed to Aid Management
Amanda Hackney, Black Cat GIS and Biological Services
GIS Project mapping the distribution of trash along water bodies based on input from trash surveys. Volunteers collected, sorted, and categorized trash and that was put into GIS to show the sampled spread on top of maps that showed important variables like distance to a major road. They fed the data into a predictive model and used extrapolation to predict the trash levels in the rest of the watershed that was not sampled. Additional conversation was had about the importance of social understanding around trash and littering as well. Ms. Hackney brought up a Keep America Beautiful littering survey that discussed how physical changes such as more receptacles can only do so much when the larger problem is attitude and mindset.

Coastal Wetland Vegetation Responses to the Closure of Rollover Pass
Anna Armitage, Ph.D., Texas A&M University Galveston
Ecological project looking at the effects of the closing of Rollover Pass on the surrounding ecosystem. They sampled before the closure and then yearly after looking at salinity, vegetation, and species composition. The changes observed are happening gradually and generally the species that are in this area are tolerant of large salinity shifts. There may be an effect on a decadal scale so there is interest in sampling in five or 10 years and comparing to current information.

New and Emerging Contaminants Discussion
George Guillen UHCL

Introduction: How do we know which contaminants to look for and which studies to fund? What should our priorities be? We produce 70% of petrochemicals in the nation and have a large urban population. Environmental Protection Agency has a list of contaminants to watch for that we can reference but what else?

- Dr. Guillen - We need to know the ecologically toxic amounts for contaminants and what they affect in the ecosystem as well as synergistic toxicity effects while we mostly focus on single effects. In the past, we looked at sediment toxicity, contaminant identification, and community composition around specific types of industry so you could trace cause and effect easier with this sediment triad. What is the exposure threshold? Is there an issue? And are these contaminants water soluble?
- Jim Dobberstein - A broad approach is expensive especially with how sensitive they are now. Triad sediment studies are very expensive now. We need studies to look across trophic levels to get an idea. Over time, we see the effects of these contaminants, for example, it could negatively affect fish. Then we work backwards to the exposure and use that to determine the need to focus on those contaminants.
- Lisa Marshall - In June we will be talking about priorities for next year so this can spur that conversation.
- Zulimar Lucena - We could add a justification requirement for the proposal where it must be thoroughly explained why those contaminants were selected for the study. It should be on those proposing to show they have done background research in their choices.
- *Dr. Guillen and Jenelle Estrada to work on creating a side group that can discuss and pull in members from other groups such as the Water and Sediment Quality subcommittee.*

Project Updates from M&R Project Managers

- Regional Monitoring Database – HARC (Ryan Bare) *In maintenance mode for RMD. It is up and running and accessible.*
- The Distribution, Fate, and Transport of Emerging Contaminants in Galveston Bay – TAMU (Yina Liu). *Just submitted final report and it's been accepted by GBEP and they will do a council presentation in July.*
- Long Term Monitoring of Living Shorelines – Lee College (Jim Dobberstein): *We are working on benthos and pulling data together. Ms. Hackney is working with us on microplastics GIS work and a couple students are presenting at the SETAC meeting.*
- Monitoring Ecosystem Indicators for Science-Based Restoration and Enhancement – TAMUG (Hui Liu) *Sampling the bay and switched the cruise date to capture the monthly data and have September-February. We have 2022-2023 zooplankton abundance data available as well as oyster larvae data.*
- The Distribution and Fate of Highly Toxic Tire Rubber-Derived Chemicals in Galveston Bay – TAMUG (Michael Shields). *Contract has not been executed; A&M has it and is reviewing it. They have submitted their QAPP. It is being reviewed by TCEQ.*

GBEP, Council, and Subcommittee Updates

- WSQ subcommittee meeting: Wednesday, March 13, 2024, 1:30 p.m.– 3:30 p.m.
- NRU subcommittee meeting: Wednesday, March 20, 2024, 10:00 a.m. – 12:00 p.m.
- B&P meeting: Next one is cancelled.
- GBC meeting: Wednesday, April 17, 2024, 9:30 a.m.– 12:30 p.m.

Announcements/Path Forward Items:

- **Next meeting**: Wednesday, June 12, 2024, 9:30 a.m. – 11:30 a.m.

- Wednesday, September 11, 2024, 9:30 a.m. – 11:30 a.m.
- Wednesday December 11, 2024, 9:30 a.m. – 11:30 a.m.

Adjourn