

6300 Ocean Drive, Unit 5869 Corpus Christi, Texas 78412-5869 O 361.825.2000 • F 361.825.2050

September 30, 2022

Steven J. Raabe, P.E. Trustee, Matagorda Bay Mitigation Trust PO Box 1269 Poth, TX 78147-1269

RE: Quarterly Progress Report for the period 7/1/2022 – 9/30/2022.

Dear Mr. Raabe,

Please find enclosed the following deliverable: Quarterly Progress Report for the project "Long-term Trends in Lavaca-Colorado and Guadalupe Estuaries" Contract No. 011.

Sincerely,

Paul A. Montagna, Ph.D.

Parl Montys-

Chair, Hydroecology, Harte Research Institute

Professor, Physical and Environmental Science Department

Regents Professor, Texas A&M University System

Texas A&M University-Corpus Christi

6300 Ocean Drive, Unit 5869

Corpus Christi, TX 78412

Phone: 361-825-2040

Email: Paul.Montagna@tamucc.edu

#### I. TITLE, CONTRACT INFORMATION, AND CONTACTS:

# **Long-term Trends in Lavaca-Colorado and Guadalupe Estuaries** Contract 011

Performing Party Representative:

Dr. Paul A. Montagna Harte Research Institute for Gulf of Mexico Studies Texas A&M University-Corpus Christi 6300 Ocean Drive, Unit 5869 Corpus Christi, TX 78412-5869 Telephone: 361-825-2040

Email: Paul.Montagna@tamucc.edu

Contract Period: 01 March 2021 – 31 December 2022

Reporting Period: 01 July to 30 September 2022 Date of submission: 30 September 2022

#### SUBMITTED TO:

Steven J. Raabe, P.E. Trustee, Matagorda Bay Mitigation Trust PO Box 1269 Poth, TX 78147-1269 Via Email to: Trustee@mbmTrust.com

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### II. DESCRIPTION OF TASKS:

There are four tasks for this project:

- Task 1): Analyze archived benthic samples.
- Task 2): Synthesize existing monitoring data from the Texas Parks and Wildlife Department, Coastal Fisheries Program (TPWD).
- Task 3): Synthesize existing water and sediment quality data obtained from Freese and Nichols, Inc. monitoring of the Formosa Plastics Corporation discharge site into Lavaca Bay.
- Task 4): Data Management, Reporting, and Outreach Engagement. Quarterly Progress Reports: within 10 days of the end of each annual quarter: Q1 = April 10, Q2 = July 10, Q3 = October 10, and Q4 = January 10.

Final Report = December 31, 2022

#### III. STATUS OF TASKS:

- Task 1): Complete. Completed last 10 samples this quarter. Completed database.
- Task 2): Complete. Analyses reported in: Harris, E.K. 2022. Influence Of Discharge On Long-Term Dynamics Of Abiotic and Biotic Resources In Lavaca Bay, Texas. Masters Thesis, Environmental Science Program, Department of Physical and Environmental Science, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 199 pp.
- Task 3): Complete. Analyses reported in: Harris, E.K. 2022. Influence Of Discharge On Long-Term Dynamics Of Abiotic and Biotic Resources In Lavaca Bay, Texas. Masters Thesis, Environmental Science Program, Department of Physical and Environmental Science, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 199 pp.
  - The data has been submitted to an archive and can be referenced as follows:

Montagna, P.A., E. Harris, A. Douglas, L. Vitale, D. Buzan. 2022. Formosa Plastics Discharge Monitoring in Lavaca Bay, Texas, USA. Distributed by: Gulf of Mexico Research Initiative Information and Data Cooperative (GRIIDC), Harte Research Institute, Texas A&M University–Corpus Christi. <a href="https://doi.org/10.7266/DCNHQD59">https://doi.org/10.7266/DCNHQD59</a>

A manuscript has been submitted for publication in the journal *Environmental Monitoring and Assessment*:

Elizabeth K. Harris, Paul A. Montagna, Audrey R. Douglas, Lisa Vitale, and David Buzan. "Influence of an industrial discharge on long-term dynamics of abiotic and biotic resources in Lavaca Bay, Texas, USA."

Task 4): In progress. Fifth quarterly report submitted.

Performed one presentation related to the project:

Montagna, P.A. Freshwater Inflow and Bay Health. Environmental Issues Forum, Calhoun County Democratic Club, VFW Hall, Port Lavaca, Texas, August 20, 2022, 40 participants.

https://www.youtube.com/watch?v=AQjjLWKwwy0

# IV. PLAN FOR NEXT QUARTER:

- Task 1): Complete statistical analysis of archived benthic samples and report writing.
- Task 2): Complete.
- Task 3): Complete.
- Task 4): Submit a quarterly and final report.

## V. PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS:

None.

# VI. ADHERENCE TO PROJECT TIMELINE:

- A. Explanation of delays (if any): No delays.
- B. Anticipated delays: None expected.