



HARTE RESEARCH INSTITUTE

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March 28, 2025

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

RE: Quarterly Progress Report for the period 1/1/2025 – 3/31/2025

Dear Mr. Raabe,

Please find enclosed the following deliverable: Quarterly Progress Report for the project “Are benefits of freshwater inflow confounded with degradation by non-point source pollution in Lavaca and Matagorda Bays” Contract No. 068.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Montagna".

Paul A. Montagna, Ph.D.
Endowed 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
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Phone: 361-825-2040
Email: Paul.Montagna@tamucc.edu

I. TITLE, CONTRACT INFORMATION, AND CONTACTS:

**Are benefits of freshwater inflow confounded with degradation by non-point
source pollution in Lavaca and Matagorda Bays?
Contract No. 068**

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 February 2024 – 31 January 2026

Reporting Period: 01 January 2025 to 31 March 2025
Date of submission: 28 March 2025

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

II. DESCRIPTION OF TASKS:

There are two tasks for this project:

Task 1): Sediment Quality Triad (SQT) analysis. 18 stations sampled and analyzed for sediment chemistry, toxicity, and biodiversity.

Task 2): Data Management, Reporting, and Outreach Engagement. Quarterly Progress Reports: within 10 days of the end of each annual quarter: Q1 = 10 April 2024, Q2 = 10 July 2024, Q3 = 10 October 2024, and Q4 = 10 January 2025. The Final Report = January 31, 2026. Public engagement.

III. STATUS OF TASKS:

Task 1): In progress.

The field sampling was completed on 13-15 May 2024 and on 22 May 2024. *This subtask is complete.*

Chemistry samples were shipped to College Station, TX and were completed on 1 November 2024. *This subtask is complete.*

Toxicology samples were shipped to NOAA in Charleston, SC and Graduate Student Angelica Ovalle went to SC to help with sample analysis (Fig. 1). The analyses were completed on 15 October 2024. Four toxicity tests were run: the amphipod *Leptocheirus plumulosus*, the polychaete *Neanthes arenaceodentata*, and the seed clam *Mercenaria mercenaria*; and Micotox tests on bioluminescent bacteria.

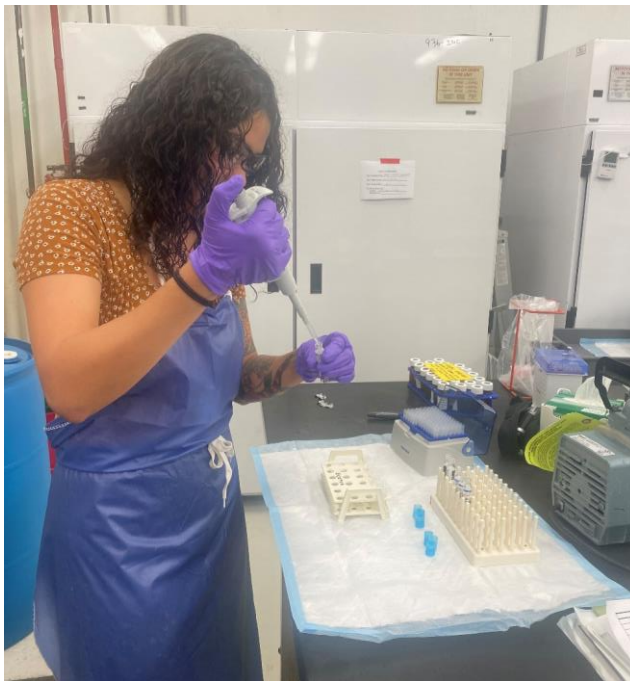


Figure 1. Angelica Ovalle performing ammonia tests on water from test chambers. Measuring ammonia is part of quality control because it can interfere with toxicity tests.

Benthic samples were brought back to Corpus Christi, TX and are being analyzed. In this quarter, 60 benthic samples (= 6 stations x 5 replicates x 2 section depths) were completed for community structure analyses. That brings the total number of samples completed to 170 of 190.

Task 2): In progress.

Fifth quarterly report submitted to MBMT.

IV. PLAN FOR NEXT QUARTER:

Task 1): Continue benthic analyses in Corpus Christi, TX.

Task 2): Submit a quarterly reporting.

V. PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS:

None.

VI. ADHERENCE TO PROJECT TIMELINE:

A. Explanation of delays (if any): No delays.

B. Anticipated delays: None expected.