



## HARTE RESEARCH INSTITUTE

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January 5, 2026

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

RE: Quarterly Progress Report for the period 10/1/2025 – 12/31/2025

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 that reads "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  
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Phone: 361-825-2040  
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**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](mailto:Paul.Montagna@tamucc.edu)

Contract Period: 01 February 2024 – 31 December 2026

Reporting Period: 01 October 2025 to 31 December 2025  
Date of submission: 5 January 2026

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](mailto: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, Q4 = 10 January 2025, Q5 = 10 July 2025, Q6 = 10 October 2025, Q7 = 10 January 2026, Q8 = 10 April 2026, Q10 = 10 July 2026, Q11 = 10 October 2026. The Final Report = 31 December 2026. Public engagement.

## III. STATUS OF TASKS:

Task 1): Complete.

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 *Leptochirus plumolusus*, the polychaete *Neanthes arenaceodentata*, and the seed clam *Mercenaria mercenaria*; and Micotox tests on bioluminescent bacteria.

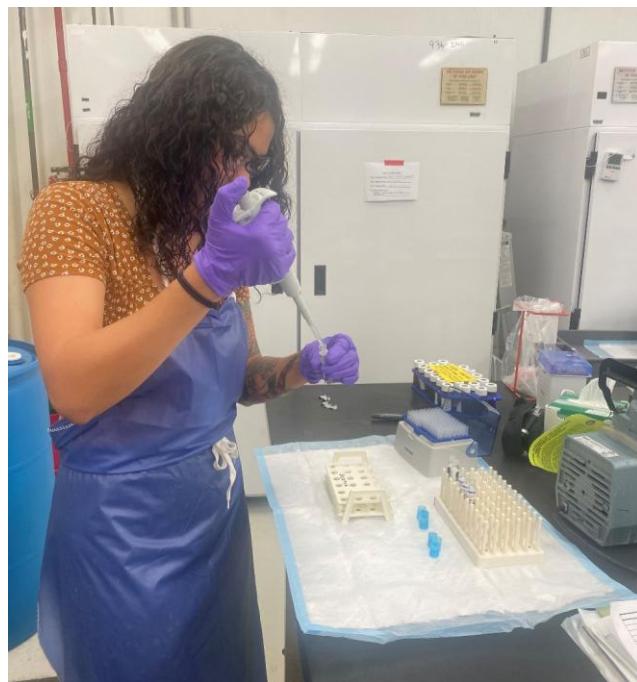


Figure 1. Angelica Ovalle performing ammonia tests on water from test chambers. Measuring ammonia is part of quality control because it can interfere with toxicity tests.

Benthic samples were brought back to Corpus Christi, TX and are being analyzed. In this quarter, 20 benthic samples (= 2 stations x 5 replicates x 2 section depths) were completed for community structure analyses. That brings the total number of samples completed to 190 of 190. During the current quarter all the datasets were completed and proofread. *This subtask is complete.*

All data sets have been proofread and verified.

Task 2): In progress.

Eighth quarterly report submitted to MBMT.

Completed first draft of all data analyses.

Made a presentation at an international conference:

Montagna, P.A., Ovalle, A., DeLorenzo, M.E., Chung, K.W., Key, P.B., Caillier, J. Are the benefits of freshwater inflow confounded with harm by non-point source pollution? Coastal Estuarine Research Federation 2025, Richmond, VA, 9-13 2025.

#### **IV. PLAN FOR NEXT QUARTER:**

Task 1): Submit a quarterly report.

Task 2): Complete data analysis for the final report.

Make additional presentations at national meetings in March 2026.

#### **V. PROBLEMS ENCOUNTERED/CORRECTIVE ACTIONS:**

We still haven't received invoices for the toxicology work performed at the NOAA laboratory in South Carolina in summer 2024. We continue to remind them on a monthly basis.

#### **VI. ADHERENCE TO PROJECT TIMELINE:**

- A. Explanation of delays (if any): We haven't been able to obtain invoicing from the NOAA laboratory.
- B. Anticipated delays: The Government Shutdown between October and November made it more difficult to receive invoicing from NOAA.