Quarterly Report for Matagorda Bay Mitigation Trust
Colorado River Delta II
June 30, 2024

Project:
Relating variation in freshwater inflow and water quality to biological communities in the Colorado River Delta to inform future habitat restoration projects.

Organizations:
[1]Center for Sportfish Science and Conservation (CSSC) at Harte Research Institute for Gulf of Mexico Studies Texas A&M University at Corpus Christi
[2]BIOWEST, INC.
Investigators:
Matthew K. Streich, Ph.D.[1] (PI)
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Kesley G. Banks, Ph.D.[1] (Co-PI)
Edmund L. Oborny, Jr. Project Manager, ELO/eo[2]

RFP#: 2023-2024-01
Project Term: 03/01/2024 – 08/31/2026
Reporting Period: 3/1/2024 – 5/31/2024 (1)

The contracted project with the Matagorda Bay Mitigation Trust was initiated as of March 1, 2024. After this date, we identified and received approval for a subcontractor with expertise in areas not covered by researchers at Texas A&M University-Corpus Christi. Areas for subcontract expertise include facilitation and coordination of meetings with potential sponsors of a pilot project to assess feasibility of controlled additions of freshwater to the Colorado River Delta and evaluating whether such additions may result in ecological benefits at potential habitat restoration sites. A technical memorandum will summarize key findings and recommendations. The chosen contractor was BIOWEST, Inc. and a subaward was issued to this group in March 2024in the amount of $25,000.

Task 1 – Nekton Distribution & Community Structure: Conduct a comprehensive assessment of juvenile finfish and shellfish distribution and community structure within the Colorado River Delta study area.

Status: Ongoing

Spring ‘24

- CSSC performed first of two sampling events for Spring 2024 on April 17th, 2024. Three epibenthic sled samples were taken at four sampling sites (CD_1, CD_2, CD_4, CD_5), totaling 12 samples, see map. All samples were preserved in 10% formalin and returned to CSSC Lab. Water samples were also collected at five sites (CD_1, CD_4, W1, W2, W3) and delivered to Dr. Wetz’s lab later that same day. Lastly, water was recorded at two sentinel sites (Sal_1, Sal_2).
- CSSC performed the second Spring sampling event on May 1st, 2024. Epibenthic samples and water quality samples were taken from predetermined sites. Water

quality was also measured at sentinel sites. Currently CSSC lab has 24 epibenthic samples in house.

Task 2 – Water Quality: Process monthly water quality and nutrient samples collected over two full years at the two potential habitat restoration sites and the two control sites.

Status: Ongoing

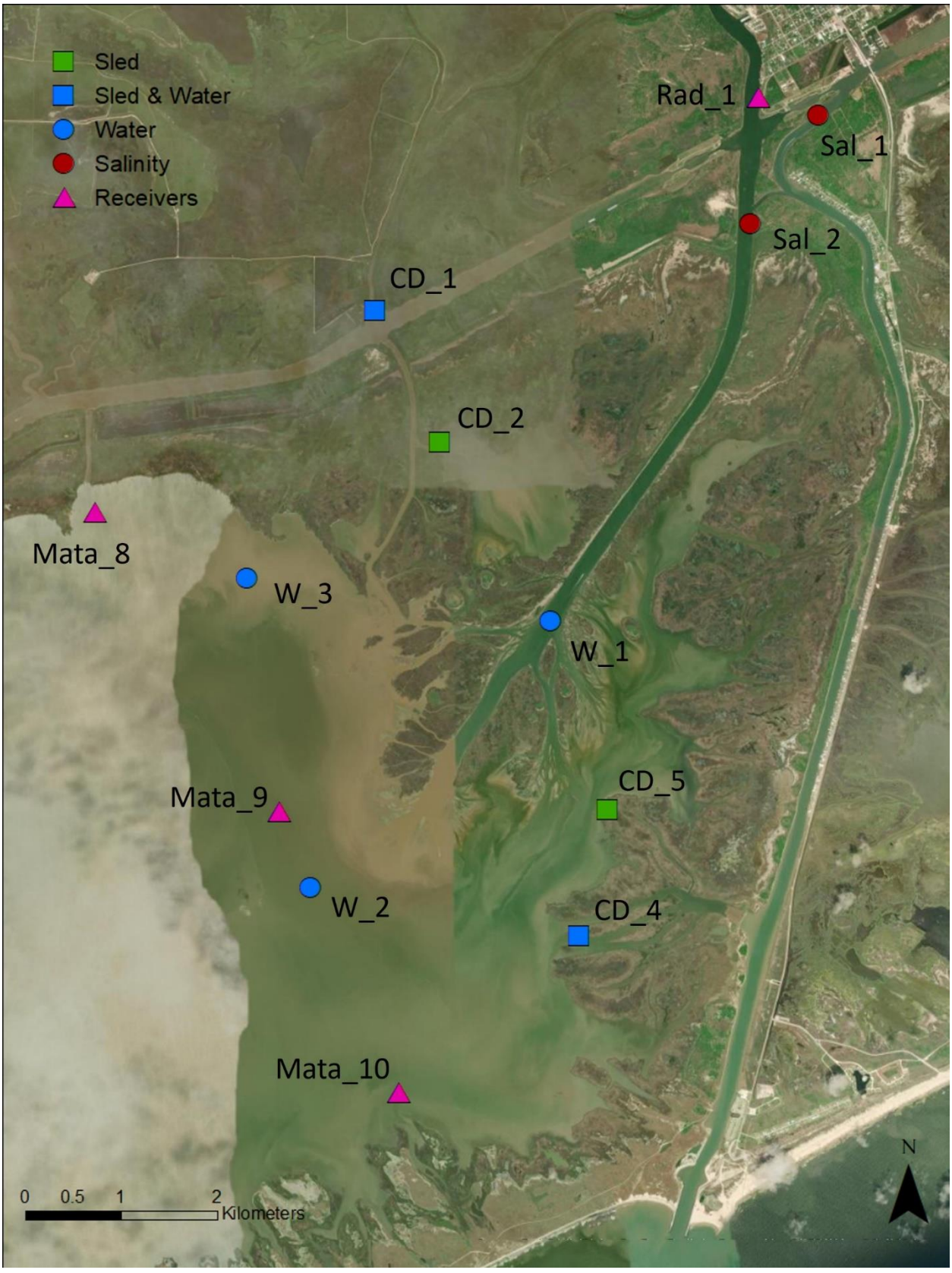
- Wetz lab has water quality samples for the five sites on 4/17/24 and 5/1/24 and is currently analyzing for hydrographic parameters (salinity, temperature, dissolved oxygen, pH), chlorophyll, nutrients and phytoplankton abundance.

Task 3 – Sponsor Engagement: Engage likely sponsors to determine feasibility and logistical considerations of a pilot project to test whether controlled additions of freshwater can be detected and offer ecological benefits at potential habitat restoration sites.

Status: Not yet begun

Spring ‘24

- Nothing to report for this quarter.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