

Matagorda Bay Mitigation Trust – Progress Report

Project Name: A research and monitoring program to mitigate the impact of harmful algal blooms on the Matagorda Bay and San Antonio Bay ecosystems

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Contract No.: 0014

Reporting Period: 9/1/2022-11/30/2022

Task 1: Real-time, high frequency detection of HABs and other phytoplankton.

Status of the task during this reporting period: not started in progress completed

- Describe major accomplishments for this reporting period.
 - Additional “training” of the FlowCytobot to recognize algal cells was conducted using water samples collected as part of Task 2.
 - Cultures of algal taxa known to be problematic in the region were received and are being used to “train” the instrument to recognize those species.
 - Testing of data transmission/communication equipment commenced.
 - Deployment site logistics were finalized.
- List the deliverable(s)/milestone(s) completed during this reporting period.
 - Nothing to report.
- Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision). Yes No If yes, please explain: The instrument was unusable for ~1.5 months due to a part going bad that turned out to be a manufacturer defect. A spare part was received and installed to get the instrument back in working order.
- Briefly describe plans for the next reporting period.
 - Assuming that there are no additional parts failures, our plan is to put a small storage shed in place at the deployment site in January 2023 that will house instrument components and deploy the instrument by the end of February 2023.

Task 2: Water sampling program for HABs and relevant environmental conditions.

Status of the task during this reporting period: not started in progress completed

- Describe major accomplishments for this reporting period.
 - Water sampling took place weekly at 6 sites, for a total of 12 sampling events during the quarter.
- List the deliverable(s)/milestone(s) completed during this reporting period.
 - On 9/22/22, we reported the presence of *Karenia brevis* (“red tide”) at the Port O’Connor site to Texas Parks & Wildlife Department so that they could follow up.
- Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision). Yes No If yes, please explain:

- Briefly describe plans for the next reporting period.
 - Weekly sampling will continue.

Task 3: Stakeholder meetings.

Status of the task during this reporting period: not started in progress completed

- Describe major accomplishments for this reporting period.
 - Nothing to report.
- List the deliverable(s)/milestone(s) completed during this reporting period.
 - Nothing to report.
- Were there any problems or obstacles encountered during this reporting period (e.g., delays, remedial action taken, schedule revision). Yes No If yes, please explain:
- Briefly describe plans for the next reporting period.
 - There are no plans for this task, but Wetz will give presentations as requested by stakeholders in the region.