

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: 12/1/2022-2/28/2023

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.
 - Testing of data transmission/communication equipment continued.
- 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 again unusable for ~1 month due to a pump failure. During that time, the manufacturer ended up recalling all instruments with the same manufacture date to replace both pumps. We are waiting on receipt of the 2nd pump for installation.

In addition, the manufacturer moved the instrument away from Windows-based operating system to a Linux-based operating system in late 2022. This has required us to reconfigure our communications software, which was unexpected and resulted in further delays.

- Briefly describe plans for the next reporting period.
 - Assuming that there are no additional parts failures or delays, we are now aiming for deployment in late March-mid April 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 11 sampling events during the quarter.
- List the deliverable(s)/milestone(s) completed during this reporting period.
 - On 12/8/22 and 12/15/22, we reported the presence of *Karenia mikimotoi* (“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 until the end of April.
 - Begin to synthesize water quality data collected during the two years of sampling.

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.