

Progress Report for Contract # 026
Saving the Integrity of Keller Bay and Sand Point Peninsula

End of Year 2, 3rd quarter: April 1, 2023

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Project Summary: Our overarching goal is to protect the unique estuarine resources of Keller Bay by stopping the Sand Point Peninsula from breaching. Our strategy is to develop a living shoreline solution that incorporates public and private partners. Specific objectives include to:

- (1) Identify and model the best actions to stop the peninsula from breaching
- (2) Engage a working group, composed of stakeholders and agencies, to help design and identify a preferred action plan
- (3) Produce engineering/design plans and obtain permits for the Sand Engine

Task 1: Identify and model the best actions to stop the peninsula from breaching

Progress this Quarter: No work.

Next Quarter: We expect to finish modeling the designed morphology for the sand engine alternative, to see where the sediment moves over time, out to the year 2050.

Deliverables:

- (1) High resolution topo-bathymetric map of study area – **completed and already submitted.**
- (2) Wave and flow velocity exceedance graphs for living shoreline design criteria – **completed and already submitted.**
- (3) Maps and videos of future morphologic evolution of study area, with and without various living shoreline alternatives, including a single or multiple Sand Engines – **partially completed for baseline model and alternatives, not yet for morphology model with Sand Engine design alternative (expected to send at end of next quarter)**

Task 2: Engage a working group, composed of stakeholders and agencies, to help design and identify a preferred action plan

Progress this Quarter: Our team conducted several online meetings and informal phone calls between our personnel (12/20, 1/8, 1/9, 1/25, 1/31, 2/6, 2/27, 3/6). During these meetings, we discussed: early work on engineering and design plans, Delft3D modeling, and continued hydrodynamic modeling work.

The team also continued to write up a draft version of a report on the working group's regional strategy and funding plans and support package for the permit (under Task 3).

Subcontractor West continued to maintain the online stakeholder matrix. This matrix has been accessed and continually updated by team members.

Next Quarter: The team plans to hold the second “stakeholder working group” meeting in early summer with the relevant agencies, to show them the final modeling results and to begin the first steps of permitting. We will deliver rough plans for potential sand engine design to the Texas General Land Office, for their possible funding during this next period.

Deliverables:

- (4) Working group meeting recordings – **ongoing**
- (5) Report on working group’s regional strategy and funding plans – **ongoing**

Task 3: Produce engineering/design plans and obtain permits for the Sand Engine

Progress this Quarter: No work.

Next Quarter: Expect to continue developing the E&D products for all alternatives, share them with stakeholders for their input over the next quarter, and begin the initial push towards permitting.

Deliverables:

- (6) 30% E&D plans and alternatives for Sand Engine on state/federal-owned land – **ongoing**
- (7) Coastal Boundary survey – **not started**
- (8) Support package for permitting of Sand Engine – **ongoing**
- (9) Section 404 and other required permits for Sand Engine, 80% E&D – **not started**