

MARSH RESTORATION & REPAIRS

to Shoreline Protection Systems for Existing Eco-Systems along the Houston-Galveston Navigation Channel by the U.S. Army Corps of Engineers - Galveston District using a Multiple Award Task Order Contract (MATOC)

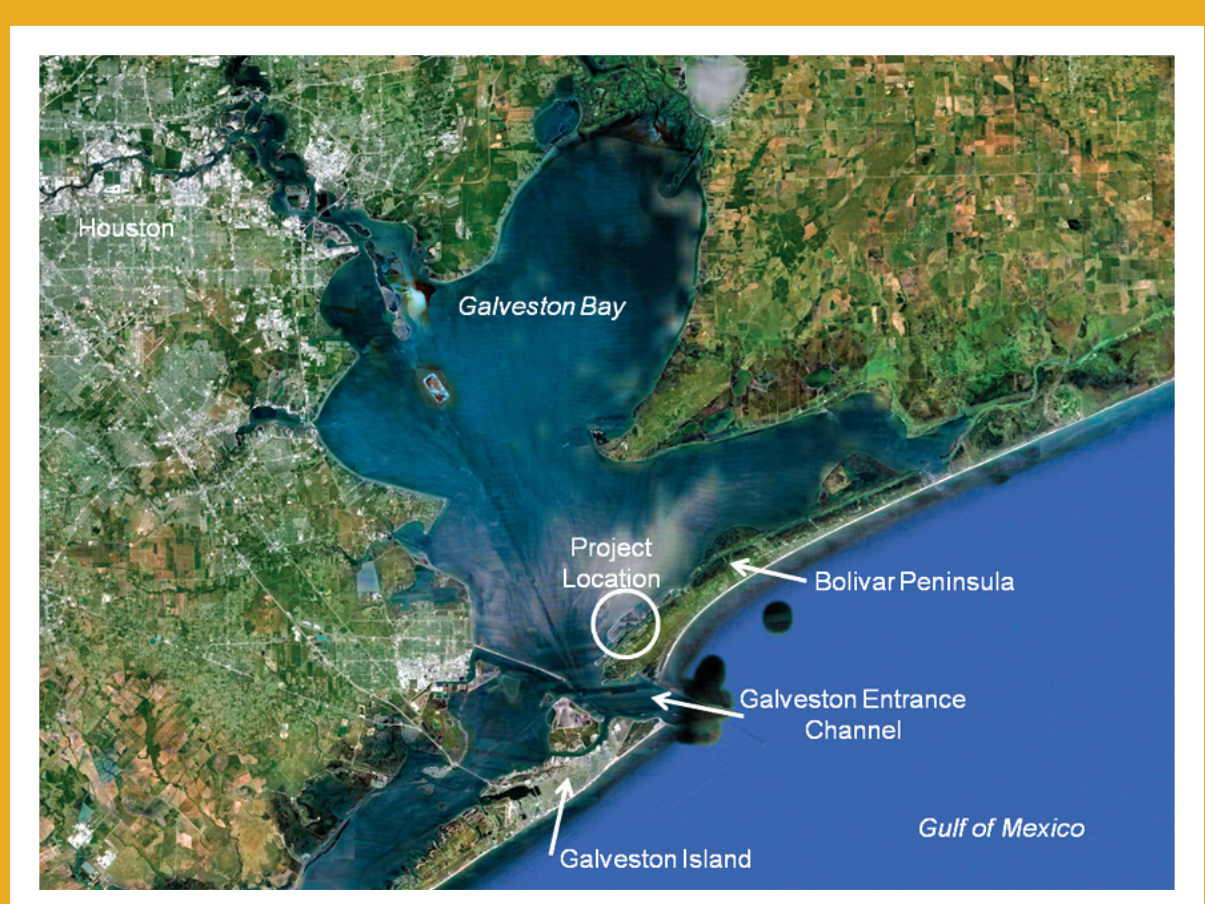
Gerald J. Hauske, PE (HDR Engineering, Inc.), Victor W. Wehman III, PE (Environmental Chemical Corporation), Keith J. Halla, PE (U.S. Army Corps of Engineers – Galveston District)



Introduction

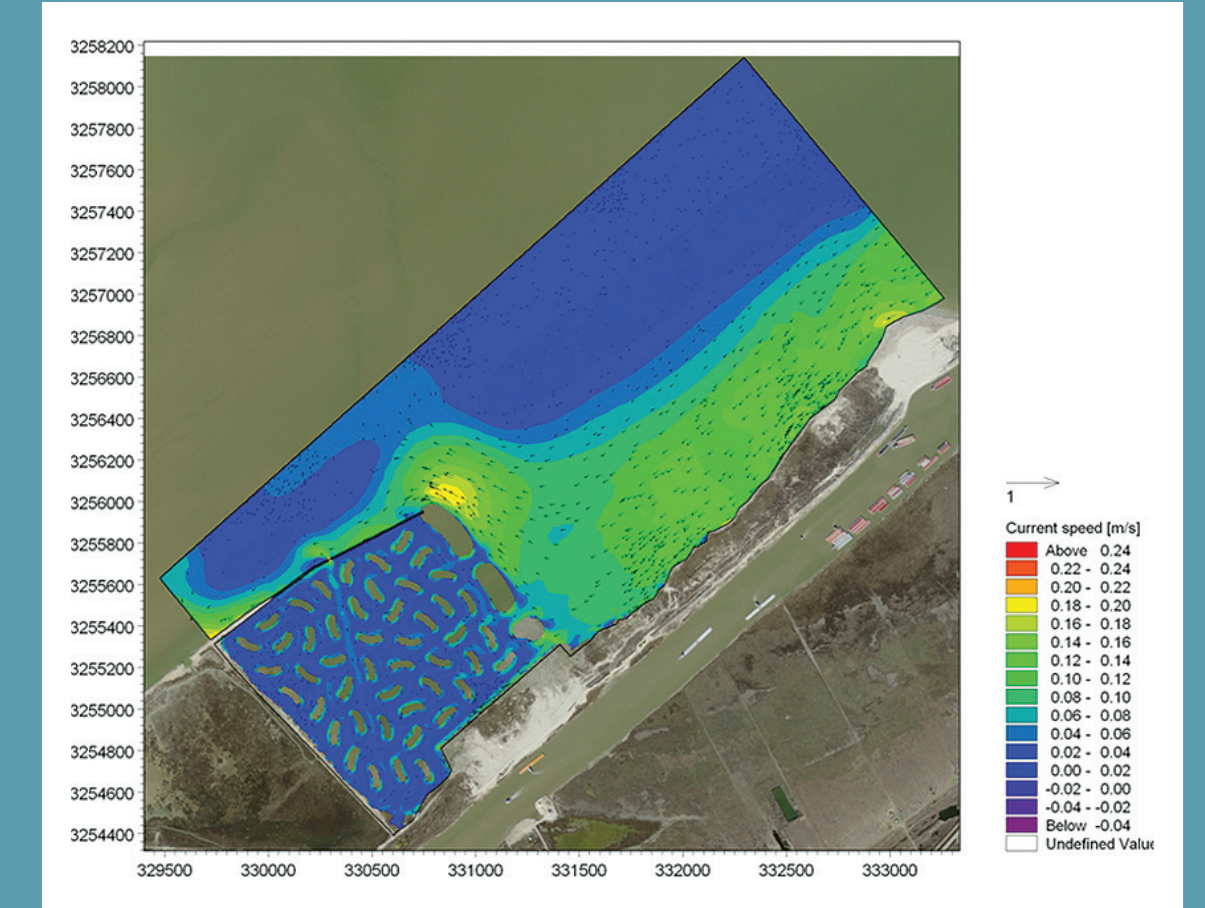
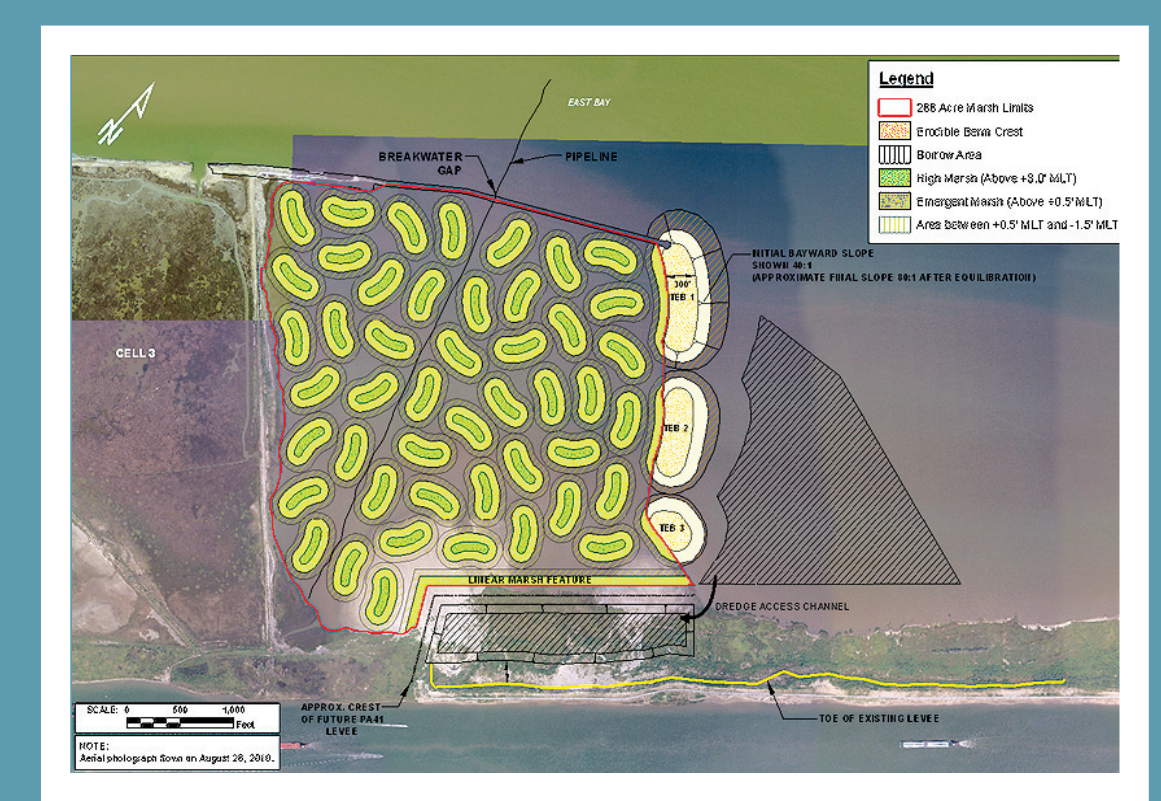
The USACE Galveston Multiple Award Task Order Contract (MATOC) is a design build contract for heavy civil/horizontal construction requirements within the USACE Southwestern Division geographical area (Texas, Oklahoma, Arkansas and portions of Missouri and Louisiana) established by Galveston District based on their assessment of requirements over the life of the MATOC. The MATOC process is a two-step process that begins with the issue of an RFQ to short list qualified design-build (D/B) teams into a standing pool for the life of the MATOC. The second step is to then issue an RFP to the short listed teams for a specific project. The MATOC concept allows the district to pre-qualify a pool of consultants/contractors for potential D/B requirements and/or standard construction contract requirements in advance, then issue task orders to those pooled consultant/contractor teams. The MATOC was an acquisition tool that enabled the Galveston District to execute a program of work that was 4-5 times their normal annual work load following the infusion of Hurricane Ike recovery funds and ARRA (Stimulus) funds. The district did not have sufficient in-house design capacity, or contracting personnel to execute that large of a program in the time lines specified. The MATOC streamlined the procurement process, because after the pool of D/B teams are established, it is administratively much quicker and less manpower intensive to issue/manage the task orders.

This project consists of the design and construction of levee repairs, shoreline protection, and channelization within the placement areas and beneficial use sites constructed in conjunction with the Houston-Galveston Navigation Channel widening and deepening project. The scope of work was divided into 5 design and construction packages.



Bolivar Marsh New 288 Acre Cell

- Construction of new marsh cell
- Beneficial use of dredged material from existing marsh Cell 3 and existing GIWW placement area 41
- Construction of emergent habitat features via hydraulic placement of dredged material
- Construction of sacrificial erodible berms via hydraulic placement of dredged material



Evia Island Shoreline Protection Repairs and Beach Restoration

- Debris removal on this Bird island
- Repair and restore rock revetment and toe berm that was damaged by Hurricane Ike
- Restore the beach area and addition of native plant species



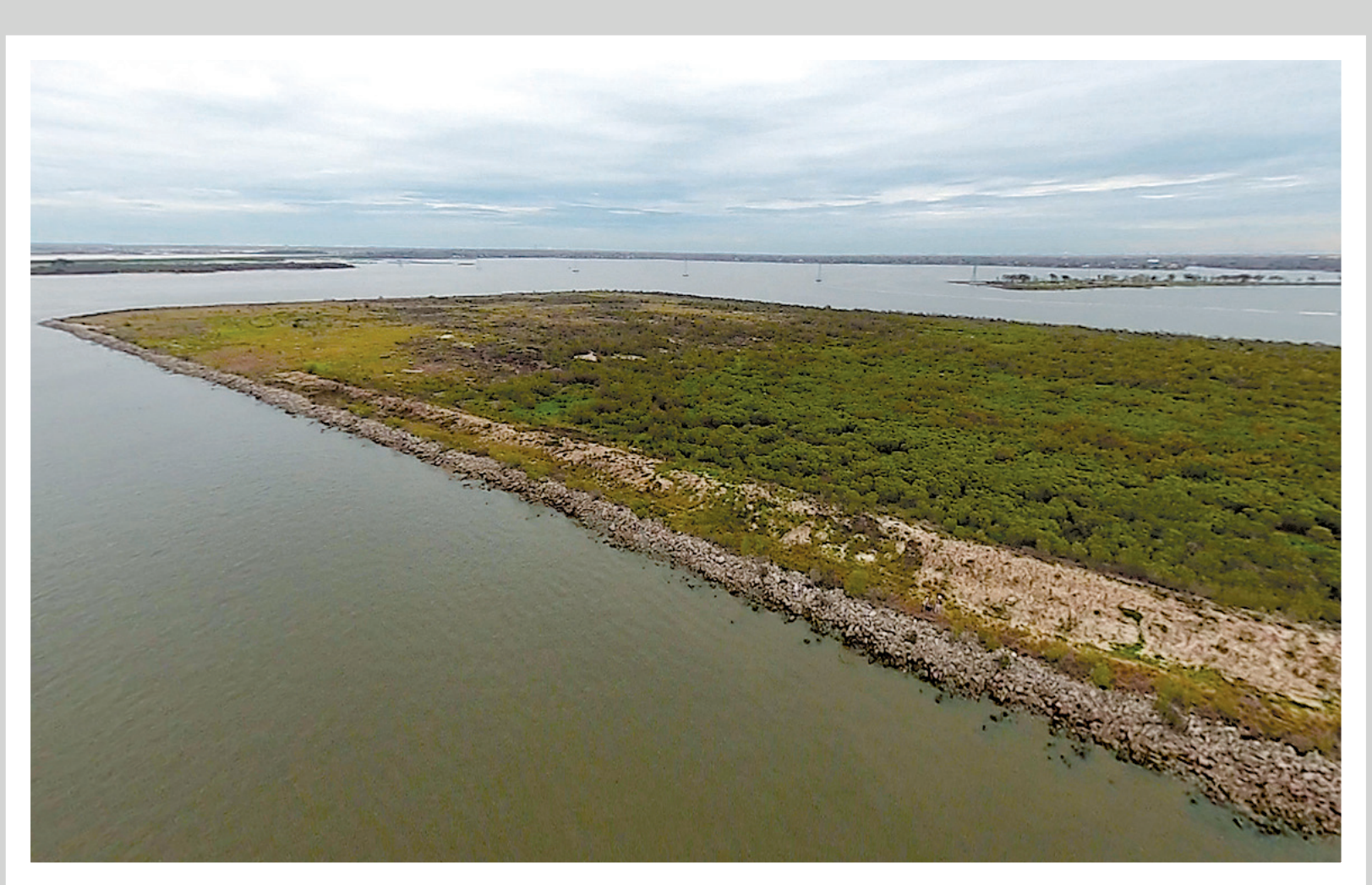
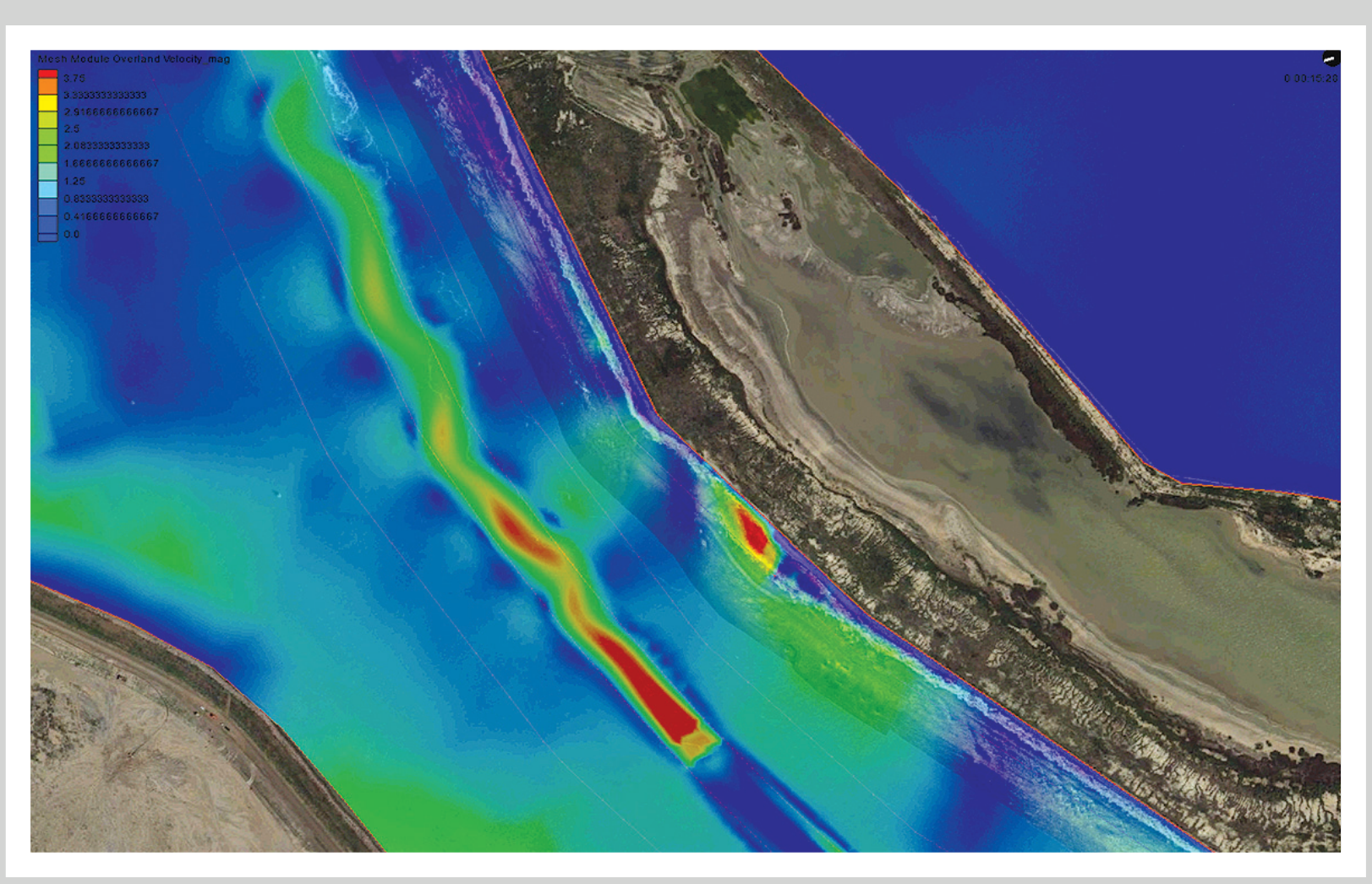
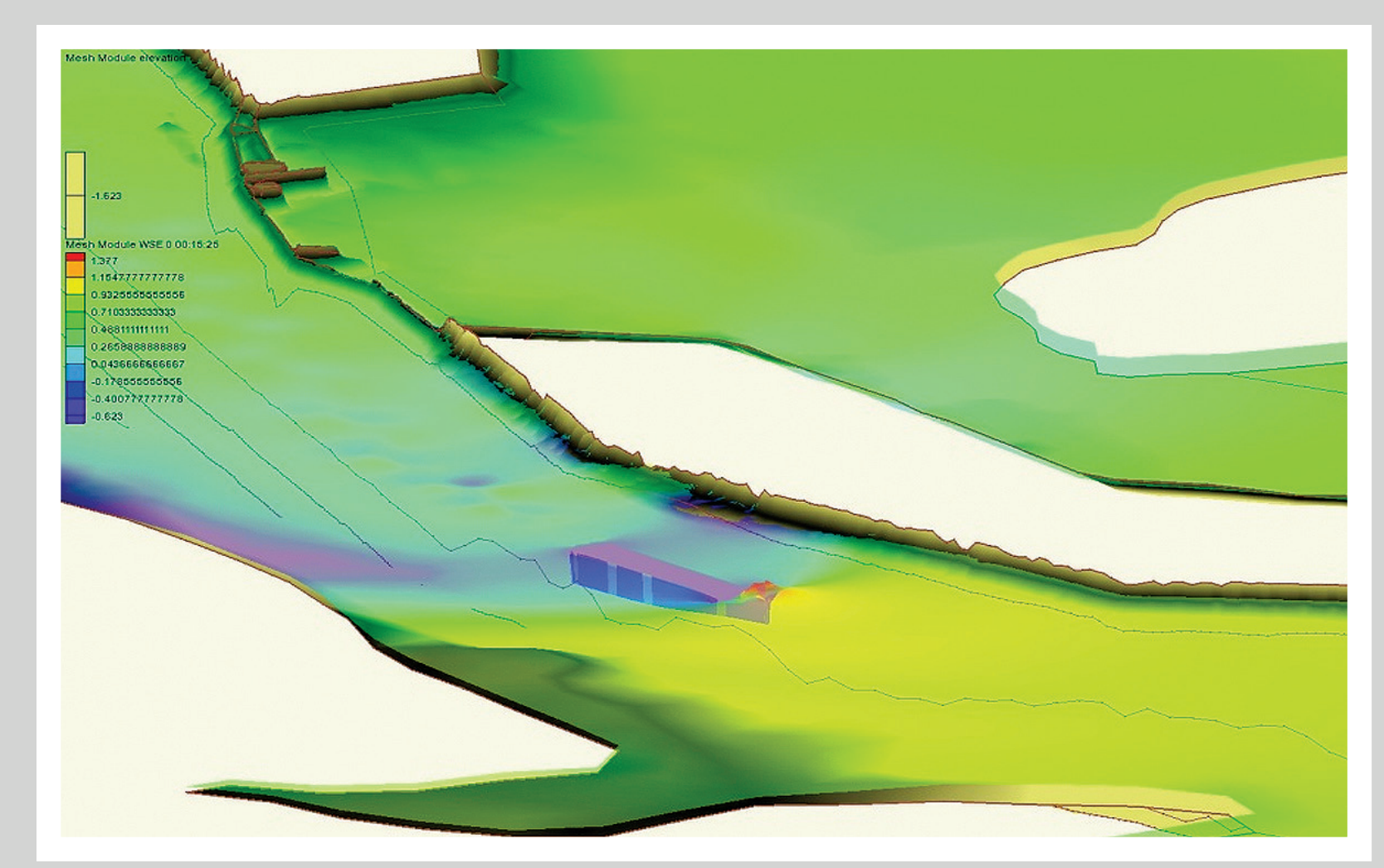
Bolivar Marsh Shoreline Protection Repairs

- Debris removal
- Repair and restore earthen levee and rock revetment that was damaged by Hurricane Ike
- Construction of new rock breakwater to protect new 288 acre marsh cell



North and South Goat Island Shoreline Protection

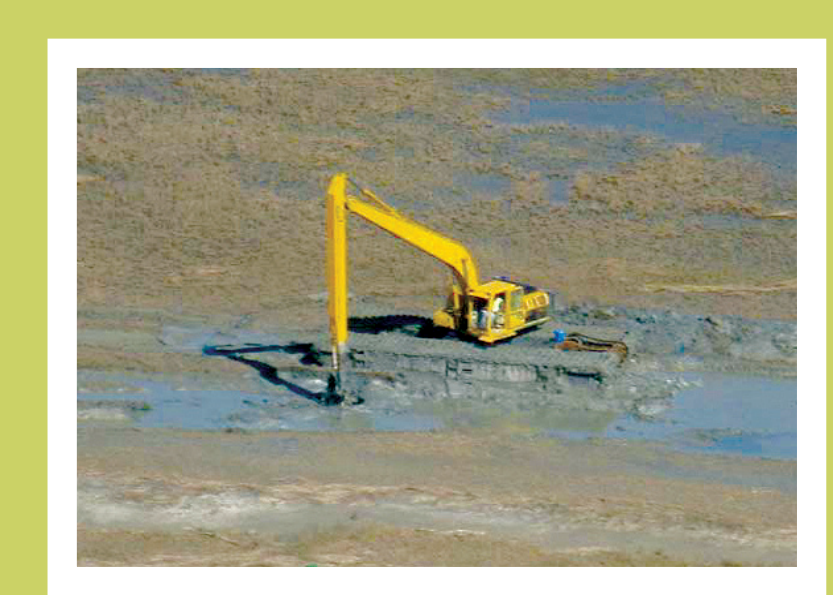
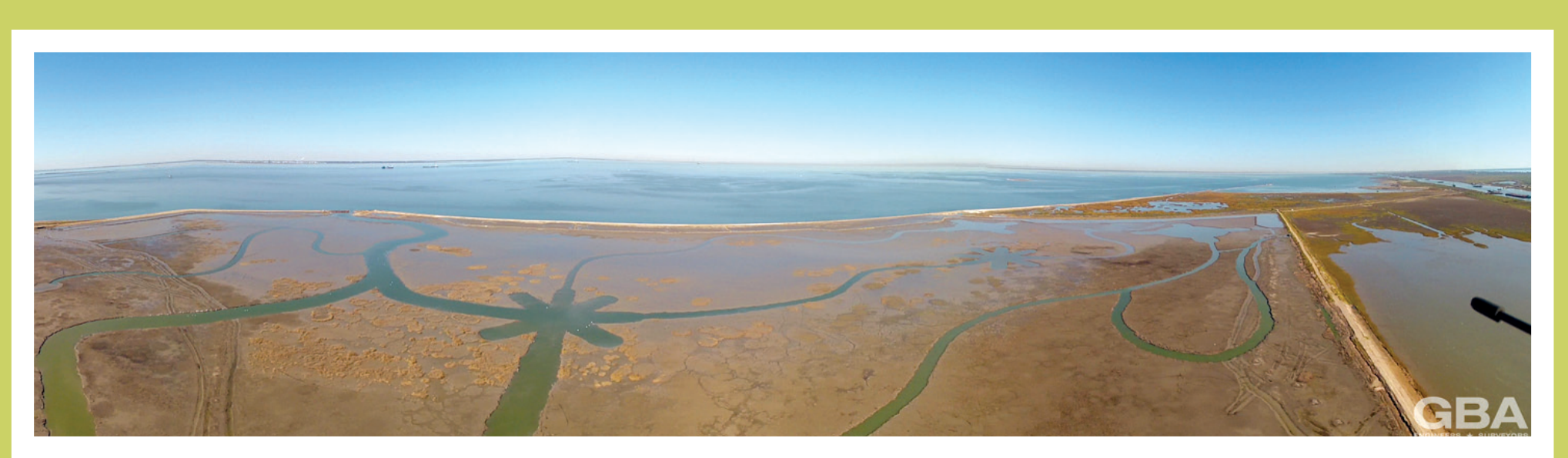
- Debris removal
- Repair and restore rock revetment that was damaged by Hurricane Ike and Ship Traffic.
- Analyze passing vessels effects from adjacent Ship Channel



"Success of this contract model is attributed to the cooperative partnership formed between the owner, design engineer, construction contractor, waterway management authority, and state and federal resource protection agencies."

Bolivar Marsh Channelization of Cell 1 and Cell 3

- Dredging of channels and ponds in Cells 1 and 3 within the existing marsh/previous DMPA
- Beneficial use of dredged material within existing marsh cell



Conclusion

Natural disasters lead to immediate issues that need to be addressed to maintain the biological and commercial use of the coastal region. The USACE – Galveston district has made a contractual process by which they can adapt and respond to these emergencies using pre-determined project teams that can design and construct in shorter timelines than the past and still provide a best value bid environment. The Bolivar Marsh project was performed under this model to correct issues created by Hurricane Ike and to address other issues of the Houston-Galveston Navigation Channel area. This project involved new marsh creation, rehabilitation of existing beneficial use material marshes, and repair of the existing shoreline protection of ecological sites. The contract model allowed the designer and contractor to investigate the base issues of the failures and provide a sound solution using the design-build project delivery method.

