



Utilization and Design Considerations for Channel to  
Victoria BU Sites

**Description**

SWG will develop an alternative approach to managing sediment in the Channel to Victoria (CTV) project by assessing impacts of utilizing new, or historic (not utilized in several decades), beneficial use (BU) sites for placement of maintenance dredged material. This project will leverage several BU and open water sites that have been approved and received clearance through NEPA documentation completed for the feasibility study when the CTV project was authorized. Successful options will reduce dredging costs, and increase and enhance critical habitat.

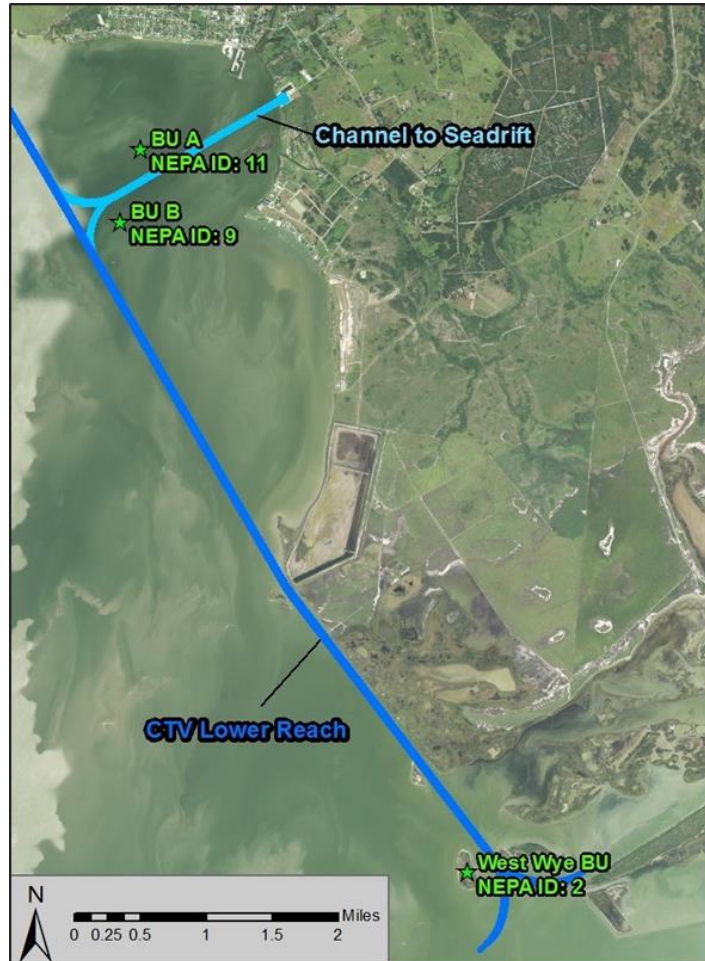


Figure 1, CTV Lower Reach and Channel to Seadrift.

**Issue/Challenge  
To Address**

Maintenance material from the CTV lower reach and channel to Seadrift have historically been placed in upland confined placement areas, however, opportunities to beneficially use this sediment and keep it within the Antonio Bay system have been identified.

Through review of NEPA documents from the authorization of the CTV Navigation Project and coordination with the FWS, the Galveston District has identified BU sites along the CTV lower reach and channel to Seadrift where habitat can be restored and enhanced by receiving dredged material while reducing or eliminating the need to place material from this reach in upland placement areas. A gap in knowledge needs to be



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addressed to determine: (1) impact of placement in BUs on shoaling rates in the adjacent Federal Channels, (2) design components (i.e. creation of living) and their arrangement to incorporate into each BU, (3) impact of design components on sediment migration and shoaling rates, and (4) cost savings from utilizing identified BUs instead of upland PAs and construction of a living shoreline. Utilizing the BU sites in this study will reduce the cost of maintenance dredging allowing the Galveston District to maintain the Federal channel with decreased funding, as well as create and enhance habitat.

### Successes Lessons Learned

Lessons learned will be compiled during the duration of this study.

### Expected Products

- Description of BU alternatives to be analyzed
- Quantified impacts of sediment migration/shoaling of each BU design
- Quantified cost saving from using proposed BU sites
- Final report and presentation

### Stakeholders/Users

Stakeholders include the US Fish and Wildlife Service and Port of Victoria.

### Projected Benefits Value Added

BU sites identified in this project would require a substantially shorter pipeline length than the upland PAs historically used, in turn significantly reducing the cost of dredging operations. Additional cost savings will be realized due to the reduction or elimination of costs associated with maintenance and construction of containment dikes of upland PAs. Cost savings will be seen in the short and long term as results of this study when they are put into practice in the next dredging cycle (one to two years) and subsequent maintenance dredging operations in these channel reaches. Another benefit will be the increase in capacity for dredged material for the CTV Navigation Project.

Value will also be added through the creation and enhancement of habitat at the BU sites studied. Eroded areas of land will be restored and maintained through subsequent placement creating habitat for nesting birds. One of the sites, West Wye, is located in an area designated as critical habitat for Whooping cranes (*Grus americana*) and will provide critical habitat for the species with the creation/restoration of nesting areas. Additionally, living shorelines created as a result of this study will create habitat in the intertidal zone and shallow water for oysters and other species that utilize these habitats.

### Leveraging Opportunities

This project will leverage several BU sites that have been approved and received clearance through NEPA documentation completed for the feasibility study when the CTV project was authorized and coordination with the FWS over the past year.

### Points of Contact

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### Participating Partners

US Fish and Wildlife Service, ERDC