

NEPA FOR BENEFICIAL USE

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Environmental

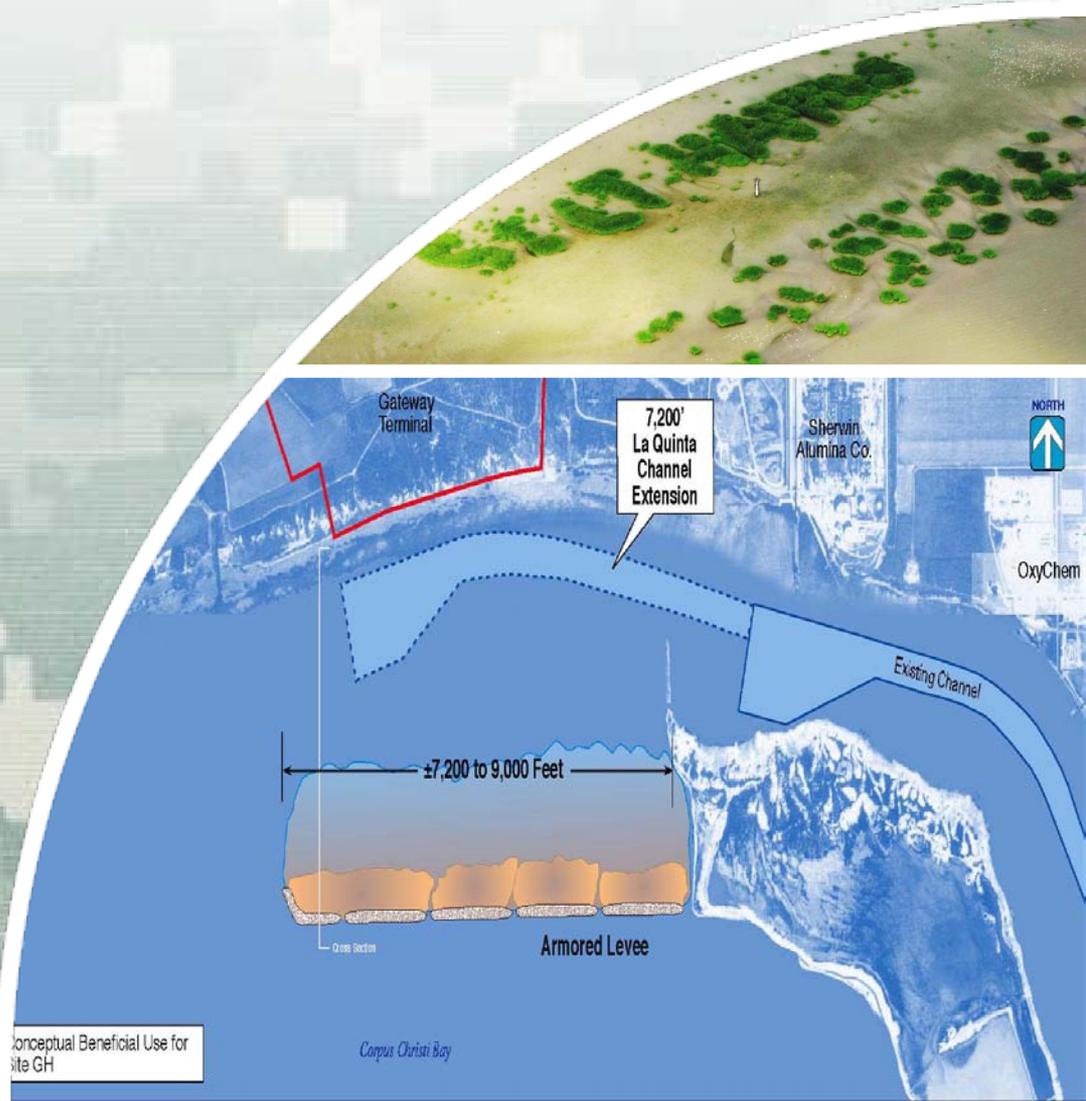
Galveston District

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Galveston District Beneficial Use Project Locations



What is BU?

- Habitat restoration using dredged material.
- Purpose is to restore ecosystem structure, functions, and values.
- Project should result in improved environmental quality.
- Project cannot result in mitigation.
- Improvement should have sufficient national significance to justify federal funds.



Galveston District Beneficial Use Projects



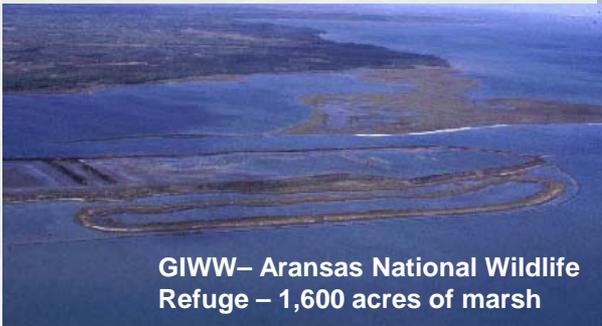
Houston Navigation Channel – marsh restoration at Atkinson Island



Texas City Channel – 1,000 acres of marsh in Lower Galveston Bay



Sabine-Neches Waterway – Bessie Heights Marsh



GIWW – Aransas National Wildlife Refuge – 1,600 acres of marsh



Brazos Island Harbor – 3,000 feet of beach nourishment at South Padre Island



Port Mansfield Channel – 3 acres beach nourishment



Chocolate Bayou – marsh creation



Houston Ship Channel – Evia Island – 6 acre bird nesting habitat



Typical SWG BU Projects

- ▶ Beach Nourishment
- ▶ Marsh Restoration
- ▶ Seagrass Restoration



What is NEPA and why is it required?

- National Environmental Policy Act of 1969
- Umbrella environmental legislation
- Public disclosure requirement
- Identify sensitive resources, document direct and indirect project impacts, avoid, minimize, or mitigate significant impacts, and solicit public input and comment



When Does NEPA Apply?

- All projects must comply with NEPA, including all restoration and BU projects.
- All direct construction impacts including access and staging areas must be identified.
- Potential indirect impacts like change in hydrography must be identified and addressed.



Basic Considerations

- If the project requires mitigation, it's NOT beneficial use!
- Depending on project authority, cost, development, and approval level, ecosystem modeling and cost effectiveness and incremental cost analysis may be required.
- Only HEP models have been approved for Corps use.



Basic Requirements

- Development and coordination of an Environmental Assessment (EA) with state and federal resource agencies and the public
- Quantify what will be restored
- Identify environmental windows or other special considerations, like ESA requirements
- Develop monitoring requirements and success criteria for the project



Time Requirements

- Environmental Assessments (EAs) take 6 to 24 months to prepare, coordinate, and finalize. WE NEED LEAD TIME!
- Many laws and regulations must be complied with, and they can vary by project area and project.
- Once coordinated, most changes to the project footprint will require new coordination, and possibly a new EA.



Design Challenges

- Design of BU projects more an art than a science
- Adaptive management should always be considered
- Hydrology is critical to most BU projects – may require modeling or field evaluations to get it right
- Over time, sea level rise will increase the need for BU projects to protect coastal ecosystems



Conclusions

- There are many BU opportunities in SWG
- NEPA compliance is required for all projects
- Adaptive management is important for many BU projects
- Goal: create a project that mimics as closely as possible, conditions that would occur in the area in the absence of human changes



Questions?

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