Sabine Pass to Galveston Bay, Texas
Coastal Storm Risk Reduction and Ecosystem Restoration
Draft Integrated Feasibility Report and Environmental Impact Study

Draft Appendix E

Real Estate

September 2015

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LIST OF EXHIBITS

1 PURPOSE

This Real Estate Plan (REP) has been prepared in support of the feasibility study that describes the lands, easements, rights of way, relocation, and disposal (LERRD) required for the for the Sabine Pass to Galveston Bay, Texas, Feasibility Study. The information contained herein is tentative in nature for planning purposes only.

2 PROJECT LOCATION

The study area consists of three distinct project areas: Orange, Jefferson, and Brazoria regions. The Orange region is located about 90 miles east of the City of Houston and shares a border with the State of Louisiana. The region is approximately 356 square miles in size, 333 square miles of land and 23 square miles of water. A total of seven incorporated cities (Orange, Vidor, Bridge City, West Orange, Rose City, Pinehurst, and Pine Forest) are in this region. The Jefferson region is located about 90 miles east of the City of Houston. The region is approximately 1,111 square miles in size, 904 square miles of land and 207 square miles of water. A total of nine incorporated cities (Beaumont, Port Arthur, Nederland, Port Neches, Groves, China, Nome, Bevil Oaks, and Taylor Landing) are in this region. The Brazoria region is located about 60 miles south of the City of Houston. The region is approximately 1,597 square miles in size, 1,386 square miles of land and 211 square miles of water. A total of 20 incorporated cities (Angleton, Pearland, Lake Jackson, Brazoria, Alvin, Freeport, Clute, Rosharon, Manvel, Sweeny, West Columbia, Surfside Beach, Danbury, Richwood, Quintana, Oyster Creek, Jones Creek, Iowa Colony, Brookside Village, and Liverpool) are in the county. The study area is identified on Exhibit A.

For the purposes of this report, the Tentatively Selected Plan (TSP) project areas were renamed as Orange-Jefferson Coastal Storm Risk Management (CSRM), Port Arthur and Vicinity CSRM, and Freeport and Vicinity CSRM. Within the project area are different reaches. Reaches of project areas are listed below and are shown on Exhibits B-D.

Orange-Jefferson CSRM

- Orange 3
- Jefferson Main
- Beaumont A

Port Arthur and Vicinity CSRM

- 8- to10-foot I-Wall
- Closure Structure
- I-Wall Near Valero
- I-Wall Near Tank Farm

Freeport and Vicinity CSRM

- DOW Barge Canal
- Oyster Creek Levee
- East Storm Levee
- South Storm Levee
- Freeport Dock Floodwall
- Old River Levee at DOW Thumb
- Tide Gate I-Wall

3 PROJECT AUTHORIZATION

Authorization for the study is derived from a resolution from the Committee on Environmental and Public Works dated June 23, 2004, entitled "Coastal Texas Protection and Restoration Study".

By resolution dated June 23, 2004, entitled "Coastal Texas Protection and Restoration Study", the Committee on Environment and Public Works, U.S. Senate has requested that in accordance with Section 110 of the Rivers and Harbors Act of 1962 the Secretary of the Army develop a comprehensive plan for severe erosion along coastal Texas for the purposes of shoreline erosion and coastal storm damages, providing for environmental restoration and protection, increasing natural sediment supply to coast, restoring and preserving marshes and wetlands, improving water quality, and other related purposes to the interrelated ecosystem along the coastal Texas area.

The study fits into the overall concept of the authorization to conduct an integrated and coordinated approach to locating and implementing opportunities for CSRM. The purpose of the study is to recommend for Congressional approval a regional CSRM project that encompasses counties of the upper Texas coast between Sabine Pass and Galveston Bay.

4 NON-FEDERAL SPONSOR

The USACE Galveston District was responsible for the overall management of the study and the report preparation. As the non-Federal sponsor (NFS), the Texas General Land Office (GLO) was actively involved throughout the study process. GLO is the NFS for the study phase only.

As the project moves towards implementation, three different entities have been identified as NFS for the three different project areas. Velasco Drainage District will oversee Freeport and Vicinity CSRM, Jefferson County Drainage District #7 will oversee Port Arthur and Vicinity CSRM features, and Orange County and Jefferson County will oversee Orange-Jefferson CSRM.

4.1 LANDS, EASEMENT, AND RIGHTS-OF-WAY

The Non-Federal Sponsor is responsible for acquiring and furnishing all lands, easements, rights-of-way, relocations (i.e., P.L. 91-646 relocations and utility/facility relocations), borrow material, and dredged or excavated material disposal areas (LERRD) for the project, if required. All lands needed for this project will be acquired in fee, with the exception of the land needed for the flood protection levee easement, staging areas, a perpetual road easement, and borrow area easement. A review of LERRD requirements is set forth below. The real estate requirements for the Project must support construction, as well as the continued operation and maintenance of the Project. The majority of the acreage affected by the project consists of residential, commercial, industrial, and vacant/undeveloped and marsh land.

The real estate interests for this project are as follows. The following Corps Standard Estates are applicable:

- *Fee - the fee simple title to the land described, subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.*

- *Flood Protection Levee Easement - a perpetual and assignable right and easement in the land described to construct, maintain, repair, operate, patrol, and replace a flood protection levee, including all appurtenances thereto; reserving, however, to the owners, their heirs, and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.*

- *Temporary Work Area Easement - a temporary easement and right-of-way in, on, over, and across the land described, for a period not to exceed ___ months, beginning with the*

date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a (work area), including the right to (borrow and/or deposit fill, spoil, and waste material thereon) (move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the _____ Project, together with the right to trim, cut, fell, and remove there from all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs, and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.

- *Road Easement - a perpetual easement and right-of-way in, on, over, and across the land described, for the location, construction, operation, maintenance, alteration replacement of (a) road and appurtenances thereto; together with the right to trim, cut, fell, and remove therefrom all trees, underbrush, obstructions, and other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs, and assigns, the right to cross over or under the right-of-way as access to their adjoining land at the locations indicated in Schedule B; subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.*

- *Borrow Easement - a perpetual and assignable right and easement to clear, borrow, excavate, and remove soil, dirt, and other materials from the land described in (Schedule A) (Tracts ____); subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines; reserving, however, to the landowners, their heirs, and assigns, all such rights and privileges in said land as may be used without interfering with or abridging the rights and easement hereby acquired.*

5 PROJECT LEVEE AND FLOODWALL ALIGNMENT

The project will affect approximately 216 ownerships*. Project features are shown in Exhibits G, H and I.

5.1 ORANGE – JEFFERSON CSRM

Descriptions of the Orange 3, Jefferson Main, and Beaumont A reaches assume levee height at 12 feet, 12 feet, and 13 feet, respectively. A TSP meeting was held on July 29, 2015, where the PDT was directed by HQ to lower levee height design by 1 foot in the reaches referenced above. The Real Estate Plan will be revised to reflect this directive prior to ADM.

Orange 3 Reach: Current plans indicate 21.51 miles of new levee (200 feet wide) and 5.65 miles of new floodwall (60 feet wide) will be constructed. In general, the alignment for the levee and/or floodwall starts near Rose City (I-10) and meanders in a southeast direction, turning north near Bridge City, to the termini near the City of Orange and adjacent to I-10. In support of the construction activities, the following estimates were used:

- 96 acres of borrow material will be required for the construction of new levee and floodwall
- 27.16 miles of perpetual road easement (40 feet wide) for operations and maintenance
- temporary work area easement (20 feet wide by 27.16 miles in length) for 3 years, seven staging areas (2.0 acres each) for 3 years

Jefferson Main & Beaumont A Reach: Current plans indicate 8.82 miles of levee (200 feet wide) and 5.49 miles of floodwall (60 feet wide) will be constructed. In general, the alignment starts on the west bank of the Neches River, immediately north of the DuPont facility, and meanders in a southeastern direction to Port Neches Atlantic Road. In support of the construction activities, the following estimates were used:

- 28 acres of borrow material will be required for the construction of new levee and floodwall
- 14.31 miles of perpetual road easement (40 feet wide) for operations and maintenance
- temporary work area easement (20 feet wide by 14.31 miles in length) for 3 years
- three staging areas (2.0 acres each) for 3 years, and one staging area (3.0 acres - Beaumont) for 3 years

5.2 PORT ARTHUR AND VICINITY CSRM

Certain portions of the existing 29.04-mile system of levees and floodwalls and/or closure system will be improved or replaced. All work will be achieved within the existing rights-of-way. In support, the following estimates were used:

- temporary work area easement (20 feet wide by 29.04 miles in length) for 3 years
- five staging areas (2.0 acres each) for 3 years.

5.3 FREEPORT AND VICINITY CSRM

Certain portions of the existing 43.12-mile system of levees and floodwalls and/or closure system will be improved or replaced. All work will be achieved within the existing rights-of-way. In support, the following estimates were used:

- temporary work area easement (20 feet wide by 43.12 miles in length) for 3 years
- 10 staging areas (2.0 acres each) for 3 years.

5.4 BORROW MATERIAL

Borrow material will only be needed in Orange and Jefferson counties for the construction of the levee and portions of the flood wall for the Orange-Jefferson CSRM. Locations of borrow have not been determined at this phase of the report. It is assumed that a total of 124 acres will be required for the Orange – Jefferson CSRM. No borrow material will be required for Port Arthur or Freeport CSRM.

5.5 ACCESS/STAGING AREA

Access to the construction areas will be over existing public roads and navigable waters throughout the project areas. In some areas, access will be via existing levee right-of-way. However, Temporary Access Easements are proposed in areas where access is needed on privately owned lands.

5.6 RECREATION FEATURES

The proposed Project does not have any recreation features.

5.7 INDUCED FLOODING

There will be no induced flooding by virtue of the construction of the Project.

5.8 MITIGATION

A total of approximately 139.9 acres of forested wetland and 100.9 acres of coastal marsh would be indirectly impacted. Mitigation would be needed to compensate for a loss of forested wetlands and coastal wetlands. Planning for the avoidance and minimization of impacts began with the initial selection of the Orange-Jefferson levee alignment. The levee was located as close to the upland-wetland margin as possible to minimize wetland impacts, while also minimizing social effects and maximizing economic impacts. Opportunities to further avoid and minimize environmental impacts will be identified during final feasibility planning. Only a conceptual description of the mitigation plan has been developed as described in the WVA Appendix. Lands required for mitigation will be identified during final feasibility planning.

5.9 FEDERALLY OWNED LAND AND EXISTING FEDERAL PROJECT

There is no existing Federally owned land within the LERRD required for this Project

5.10 NON-FEDERAL SPONSOR-OWNED LAND

There is no existing NFS-owned land within the LERRD required for this Project

5.11 NAVIGATION SERVITUDE

Portions of the project structures lie within the navigable waters of the United States, and therefore the Federal Navigational Servitude will be invoked for those portions of the project.

Navigation servitude is the dominant right of the Government under the Commerce Clause of the U.S. Constitution (U.S. CONST. Art. I, §8, cl.3) to use, control, and regulate the navigable waters of the United States and the submerged lands hereunder for various commerce-related purposes, including navigation and flood control. In tidal areas, the servitude extends to all lands below the mean high water mark. In non-tidal areas, the servitude extends to all lands within the bed and banks of a navigable stream that lie below the ordinary high water mark (United States v. Cress, 243 U.S. 316, 37 S.Ct. 380, 61 L.Ed. 746 [1917], Kaiser Aetna v. United States, 444 U.S. 164, 100 S.Ct. 383, 62 L.Ed.2d 332 [1979]). The Government's rights under the navigation servitude exist irrespective of the ownership of the banks and bed of a stream below the ordinary high water mark and irrespective of western water rights under prior appropriation doctrine.

6 PUBLIC LAW 91-646 RELOCATION ASSISTANCE

The benefits of Title II of the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 (P.L. 91-646), as amended, are applicable for this project. Title II requires that persons and businesses displaced by a Federal project be given advisory services and assistance in the location of replacement dwellings and businesses.

Under Title II, displaced persons are entitled to reimbursement for actual and reasonable moving of personal property, differential housing payment, and incidental costs associated with the relocation. Differential housing payment is a payment made by the Government when the compensation paid for the property being acquired is not sufficient to cover the costs of a replacement dwelling for the displaced persons. Differential payments are capped at $34,000 for homeowners and $10,200 for tenants. Commercial businesses are entitled to receive advisory services, reimbursement for actual reasonable moving costs, re establishment costs which are capped at $10,000, and certain reasonable and necessary incidental costs associated with the relocation. For purposes of this study, the estimate of relocation for business includes all of these costs and was estimated to be approximately $100,000 per industrial business and $50,000 per commercial business.

7 ASSESSMENT OF NON-FEDERAL SPONSOR LAND ACQUISITION CAPABILITIES

GLO is the current NFS for the study phase only. As the project moves towards implementation, three different entities have been identified as a NFS for the three different project areas. Velasco Drainage District will oversee Freeport and Vicinity CSRM, Jefferson County Drainage District #7 will oversee Jefferson County features, and Orange County will oversee Orange County features.

At the point which the new NFS has been declared for each project area, an assessment of its land acquisitions capabilities will be made and updated in this REP.

8 BASELINE COST ESTIMATE FOR REAL ESTATE

Descriptions of the Orange 3, Jefferson Main, and Beaumont A reaches assume levee heights at 12 feet, 12 feet, and 13 feet, respectively. A TSP meeting was held on July 29, 2015, where the PDT was directed by HQ to lower levee height design by 1 foot in the reaches referenced above.

Refer to Exhibits E and F for the Baseline Cost Estimate/Chart of Accounts estimate for Port Arthur and Freeport CSRM project areas. Cost for the Orange-Jefferson CSRM is not shown due to the July 29 TSP meeting. The Baseline Cost Estimate for Orange-Jefferson CSRM will be revised to reflect the HQ directive prior to ADM.

Non-Federal Cost was estimated for planning purposes only. Because the NFS have not been formally declared for the construction of the project, non-Federal "Project Related Administration" and "LERRD Crediting" activity costs were determined by increasing Federal cost by 40 percent. Non-Federal costs will be updated to be more accurate as the NFS are formally identified. Land costs were obtained by a gross appraisal that was performed by a USACE appraiser.

9 ACQUISITION SCHEDULE

An acquisition schedule has not been determined at this time. The NFS will be required to acquire the land for proposed Coastal Storm Risk Management features after an amended LCA/PPA has been signed and prior to the advertisement for construction, such that the features can be constructed and available for use as scheduled. A description of acquisition milestones is listed below.

Milestones are based on the Project Partnership Agreement being signed	
Transmittal of ROW drawings & estate(s)	30 days after PPA signed
Obtain Surveys	60 days after transmittal of ROW drawings & estate(s)
Obtain Title Evidence	60 days after obtaining surveys
Obtain Appraisals & Reviews	60 days after obtaining titles
Authorization to Proceed with Offer	10 days after obtaining appraisals & reviews
Conclude Negotiations	90 days after start of negotiations
Conclude Closings	45 days after concluding closings
Conclude Condemnations	240 days after condemnation process starts
Attorney Certify Availability of LERRD	15 days after condemnations concluded
Corps Certifies Availability of LERRD	5 days after NFS Attorney Certifies LERRD
Review LERRD Credit Request	45 days after receiving LERRD documentation
Approve or Deny LERRD Credit Requests	5 days after concluding review of LERRD documentation

10 MINERALS

Extensive research has been done to verify any present or anticipated mineral activity. There are no known mineral interests or any evidence of the use of horizontal directional drilling within the proposed Project areas.

11 FACILITIES/UTILITIES/PIPELINE RELOCATION AND REMOVALS

It is known that there will be multiple pipelines that will be impacted by this project. However, relocation and modification costs were purposely not included because the relocations and modifications that will be necessary largely depend on how the feature designs evolve prior to ADM, and what the actual field conditions are when more thoroughly investigated.

12 HTRW OR OTHER ENVIRONMENTAL CONTAMINATES

Database searches were performed to identify potential sites of concern in the project area. Investigations indicate no HTRW areas are within or adjacent to the proposed project areas which could impact the project. Based on findings of the searches, the potential of encountering HTRW is considered low. A more detailed description of HTRW can be found in the HTRW Appendix.

13 LANDOWNER OPPOSITION

During the preliminary phases of this report, there was a mix of both support and opposition from landowners. Landowner concerns were due to the alignment of the levee and flood walls. It was explained that this project is only in the preliminary study phase and final design has not been determined.

14 ZONING

No application or enactment of zoning ordinances is proposed in connection with the Project.

Exhibit A. Study Area

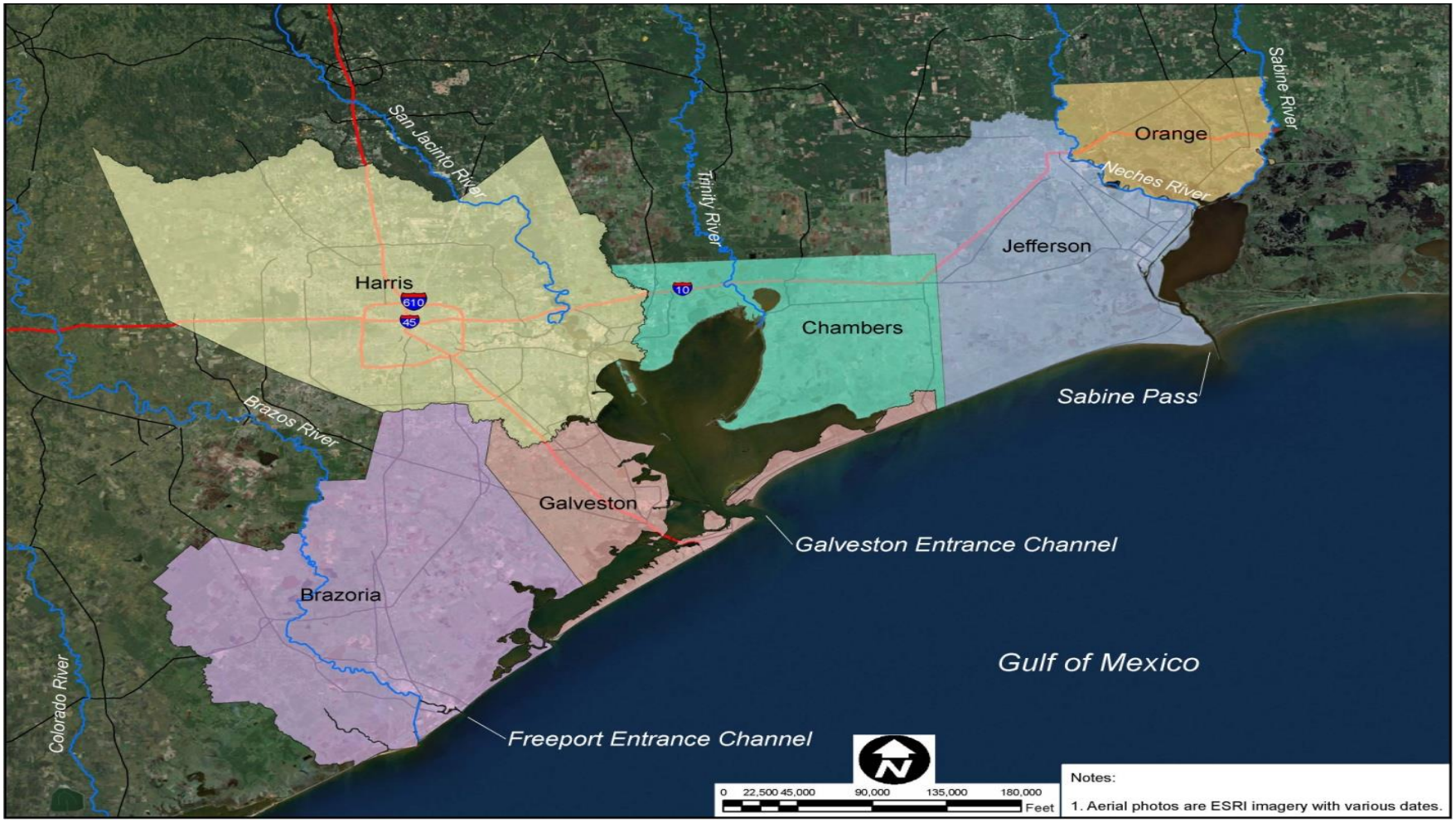


Exhibit B. TSP for Orange-Jefferson CSRM

Exhibit C. TSP for Port Arthur and Vicinity CSRM

Exhibit D. TSP for Freeport and Vicinity CSRM

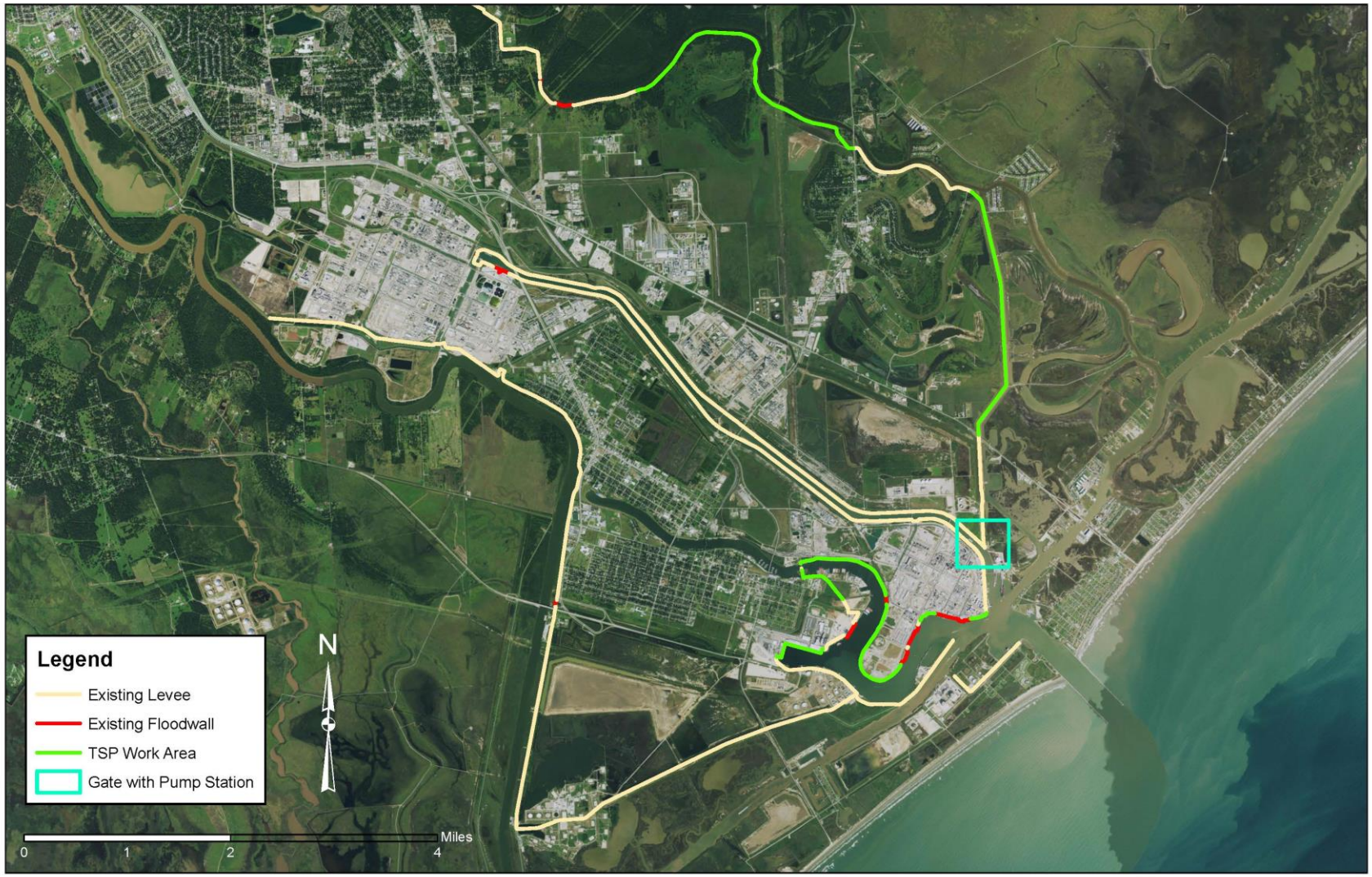


Exhibit E. Port Arthur and Vicinity – Non-Federal Costs

		Amount	Contingency
102	Acquisitions (TWE 70acres & Staging Area 5@ 2 acres)	$3,019,200.00	$603,840.00
103	Condemnations	$0.00	$0.00
104	In-leasing	$0.00	$0.00
105	Appraisals	$0.00	$0.00
106	PL 91-646 Assistance	$0.00	$0.00
107	Temporary Permits/R.O.W	$0.00	$0.00
109	Encroachments and Trespass	$0.00	$0.00
110	Disposals	$0.00	$0.00
111	Real Property Accountability	$0.00	$0.00
112	Project Related Administration	$14,000.00	$2,800.00
113	Pipeline Removal Administration	$0.00	$0.00
114	Withdrawals (Public Domain Land)	$0.00	$0.00
115	Real Estate Payments	$0.00	$0.00
1150	Land Payments	$0.00	$0.00
11502	PL 91-646 Assistance Payments	$0.00	$0.00
11503	Damage Payments	$0.00	$0.00
117	LERRD Crediting	$42,000.00	$8,400.00
	Sub Total	$3,075,200.00	$615,040.00
	Total	**$3,690,240.00**	

Exhibit E, continued

		Amount	Contingency
102	Acquisitions Reviews(TWE 70acres & Staging Area 5@ 2 acres)	$15,000.00	$3,000.00
103	Condemnations	$0.00	$0.00
104	In-leasing	$0.00	$0.00
105	Appraisals Reviews ($5,000 per tract assuming 5 tracts)	$25,000.00	$6,250.00
106	PL 91-646 Assistance	$0.00	$0.00
107	Temporary Permits/R.O.W	$10,000.00	$2,500.00
109	Encroachments and Trespass	$0.00	$0.00
110	Disposals	$0.00	$0.00
111	Real Property Accountability	$1,000.00	$250.00
112	Project Related Administration	$10,000.00	$2,000.00
113	Pipeline Removal Administration	$0.00	$0.00
114	Withdrawals (Public Domain Land)	$0.00	$0.00
115	Real Estate Payments	$0.00	$0.00
1150	Land Payments	$0.00	$0.00
11502	PL 91-646 Assistance Payments	$0.00	$0.00
11503	Damage Payments	$0.00	$0.00
117	LERRD Crediting ($6,000 per tract assuming 5 tracts)	$30,000.00	$6,000.00
	Sub Total	$91,000.00	$20,000.00
	Total	**$111,000.00**	

*Temp Work Easement and Staging Area were all assumed for planning purposes.

*Pipeline Removal Administration Cost will be determined prior to ADM.

Exhibit F. Freeport – Non-Federal Costs

		Amount	Contingency
102	Acquisitions (TWE 105 acres & Staging Area 10@ 2 acres)	$2,187,000.00	$437,400.00
103	Condemnations	$0.00	$0.00
104	In-leasing	$0.00	$0.00
105	Appraisals	$0.00	$0.00
106	PL 91-646 Assistance	$0.00	$0.00
107	Temporary Permits/Licenses/R.O.W	$0.00	$0.00
109	Encroachments and Trespass	$0.00	$0.00
110	Disposals	$0.00	$0.00
111	Real Property Accountability	$0.00	$0.00
112	Project Related Administration	$21,000.00	$4,200.00
113	Pipeline Removal Administration	$0.00	$0.00
114	Withdrawals (Public Domain Land)	$0.00	$0.00
115	Real Estate Payments	$0.00	$0.00
1150	Land Payments	$0.00	$0.00
11502	PL 91-646 Assistance Payments	$0.00	$0.00
11503	Damage Payments	$0.00	$0.00
117	LERRD Crediting	$84,000.00	$16,800.00
	Sub Total	$2,292,000.00	$458,400.00
	Total	**$2,750,400**	

Exhibit F (continued)

		Amount	Contingency
102	Acquisitions Review (TWE 105 acres & Staging Area 10@ 2 acres)	$30,000.00	$6,000.00
103	Condemnations	$0.00	$0.00
104	In-leasing	$0.00	$0.00
105	Appraisal Review ($5,000 per tract assuming 10 tracts)	$50,000.00	$12,500.00
106	PL 91-646 Assistance	$0.00	$0.00
107	Temporary Permits/Licenses/R.O.W	$20,000.00	$0.00
109	Encroachments and Trespass	$0.00	$0.00
110	Disposals	$0.00	$0.00
111	Real Property Accountability	$1,000.00	$0.00
112	Project Related Administration	$15,000.00	$3,000.00
113	Pipeline Removal Administration	$0.00	$0.00
114	Withdrawals (Public Domain Land)	$0.00	$0.00
115	Real Estate Payments	$0.00	$0.00
1150	Land Payments	$0.00	$0.00
11502	PL 91-646 Assistance Payments	$0.00	$0.00
11503	Damage Payments	$0.00	$0.00
117	LERRD Crediting ($6,000 per tract assuming 10 tracts)	$60,000.00	$12,000.00
	Sub Total	$176,000.00	$33,500.00
	Total	**$209,500.00**	

*Temp Work Easement and Staging Area were all assumed for planning purposes.
*Pipeline Removal Administration Cost will be determined prior to ADM.

Sabine Pass to Galveston Bay, Texas
Coastal Storm Risk Reduction and Ecosystem Restoration
Draft Integrated Feasibility Report and Environmental Impact Study

DRAFT APPENDIX F

PUBLIC COORDINATION

September 2015

PART I

SCOPING COMMENTS

Sabine Pass to Galveston Bay, Texas
Coastal Storm Risk Reduction and Ecosystem Restoration
Draft Integrated Feasibility Report-Environmental Impact Statement
Public Scoping Summary

Extensive public scoping, stakeholder communication, and resource agency coordination have been maintained throughout development of the Tentatively Selected Plan (TSP). Four scoping meetings were held in early 2012 which resulted in the identification of over 250 ideas addressing Coastal Storm Risk Management (CSRM) problems and Ecosystem Restoration (ER) opportunities in the six-county study area. The February 6, 2012 invitation to participate in meetings held in Beaumont, Seabrook, Galveston and Freeport, Texas, was published in local newspapers and on the U.S. Army Corps of Engineers - Galveston District (USACE) website, in addition to an extensive public mailing. The published announcement is Attachment 1.

Two stakeholder briefings were held in the spring of 2014 that focused primarily on communicating the goals and progress of the study with local governments and agencies. Continuous contact has been maintained with outside organizations that have been working to address the same problems as those addressed by this study. In particular, close communication has been maintained with the team at Texas A&M Galveston which has been working to develop the Ike Dike proposal, the Severe Storm Prediction, Education and Evacuation from Disasters Center (a consortium of several universities headquartered at Rice University in Houston) which has been assessing a number of other CSRM, ER and recreation initiatives for the Galveston Bay region, and the Gulf Coast Community Protection and Restoration District which is preparing a report evaluating CSRM opportunities in the six-county study area.

USACE published the Notice of Intent (NOI) to prepare an Environmental Impact Statement in the Federal Register on November 24, 2014. A copy of that notice is Attachment 2. Written comments were accepted for a 30-day period following that notice. In total, about 20 written comments were received following the public meetings and NOI. These comments are provided in Attachment 3. Comments made at the public meetings and in the written comments are summarized below.

The majority of the original public and agency comments received pertained to the Galveston Bay Region and to ecosystem restoration opportunities in general. The Audubon Society expressed concerns regarding Colonial Waterbird rookeries and piping plover critical habitat areas. Several rookery and critical habitat areas are within the project area, which provide nesting and feeding habitat, and are currently subject to erosion from storm damage, ship traffic and sand mining activities. Areas where critical habitat exists, especially along southwestern

coast of Galveston Island, need to be considered prior to any beach nourishment or armoring activities occur. Port of Houston Authority (PHA) advised that solutions will need to reflect industry participation or sponsorship of projects considering that public and private interests coexist along the coast. In addition, PHA expressed concerns regarding current infrastructure and industries in the study area, and specifically, along the Houston Ship Channel. Feasibility of structural solutions need to be considered prior to implementation as most of the current transportation systems that serve the HSC cannot appropriately accommodate proposed flood control structures without causing a disruption in the transportation of commerce. Weighting of nationally significant industries along HSC prior to project implementation will also need to be addressed to prioritize project need and timeline. The City of Galveston and the general public also expressed interest in public and private partnerships where open communication can address and reduce the financial burden on tax payers, and provide a forum where alternative options can be investigated. The City of Galveston recommended that a sediment management plan be considered that encourages beneficial use of dredge materials for public and private projects. This could utilize maintenance material from inlets, outlets, and harbors, while also mitigating impacts from maintenance activities and hard structures through beach preservation, beach nourishment, and establishment of a natural sand dune defense system. Local citizens and municipalities would also like to see conservation and enhancement of wetlands, in combination with responsible development, to prevent and mitigate impacts from severe weather and flood damage, specifically on Bolivar Peninsula and west end of Galveston Island. Multiple comments referenced flood control projects, greenspace, and conservations areas utilized by city Metro Parks and foreign countries as practicable and effective examples.

In the Sabine region, Orange County expressed strong support for an evaluation of surge protection for that county, including protection for Chemical Row and the Entergy Power Plant. The Corps was urged to evaluate levee and surge gate alternatives, and to utilize the Orange County study which evaluated several potential alternatives. Industrial facilities and the general public emphasized the need to protect petro-chemical facilities in the area, one of which is the largest refinery in the U.S. The general public was also concerned about maintaining or improving evacuation routes during storm emergencies. Jefferson County and Ducks Unlimited supported shoreline erosion control for the GIWW; this would prevent the loss of interior marshes that serve as storm buffers for inland communities. Comments from resource agencies focused on the need for marsh restoration on the lower Neches River and marshes near Sabine Pass, and dune and shoreline restoration of the Jefferson county shoreline, again as a means for buffering surge impacts. GIWW erosion, marsh, dune and shoreline restoration will be addressed as part of the new Jefferson County ER study.

In the Brazoria region, the local sponsor of the Freeport Hurricane Flood Protection Project (HFPP) supported evaluation of storm surge impacts on the existing system. This would strengthen existing protection of the dense petrochemical and residential development within the

Freeport HFPP. Maintaining or improving evacuation routes were important to local citizens. Local interest groups and the general public expressed concern with maintaining a tidal connection with the Gulf at the San Bernard River, and the effect of altered circulation created by the GIWW intersection with the Brazos River Diversion Channel. Local citizens also expressed concern regarding the effect of the Brazos River Diversion Channel on sediment delivery to the Surfside area. Beach restoration in the Surfside area would protect nearby residences and help attenuate storm surge. Resource agencies recommended restoration of Follets Island, a barrier peninsula, as a means of buffering storm surge impacts to the Freeport mainland. Tidal circulation, sediment supply, beach and marsh restoration will be addressed as part of the upcoming Coastal Texas study.

The Sierra Club provided comprehensive comments which applied to the six-county study area. In general, they urged restoring natural coastal shoreline system features and urged restraint in the construction of structural systems that would encourage more development. They supported structural measures that are limited in size and focused on vulnerable, developed areas, and recommended targeted buyouts rather than structural alternatives in areas such as Surfside in the Brazoria Region. They urged working with nature and natural processes, as well as protecting shoreline features that provide natural erosion protection.

The Draft Integrated Feasibility Report (DIFR)-EIS will be released for public review and comment. All comments received and USACE responses will be included in the Final IFR-EIS.

Attachment 1

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

February 6, 2012

INVITATION TO PARTICIPATE IN PUBLIC WORKSHOP AND NEPA SCOPING MEETING FOR

IDENTIFICATION OF STORM DAMAGE REDUCTION, ECOSYSTEM RESTORATION, AND FLOOD RISK MANAGEMENT OPPORTUNITIES IN ORANGE, JEFFERSON, CHAMBERS, HARRIS, GALVESTON, BRAZORIA COUNTIES

The U.S. Army Corps of Engineers, Galveston District and the Texas General Land Office along with their Regional County partners, are seeking individuals, groups or organizations interested in participating in public workshops for the purpose of gathering ideas for hurricane / tropical storm damage reduction, ecosystem restoration, and flood risk management opportunities in Orange, Jefferson, Chambers, Galveston, Harris, and Brazoria Counties. This outreach effort is being conducted in conjunction with the Sabine Pass to Galveston Bay, Texas Study. The meeting will also serve as a scoping meeting for the purposes of identifying significant issues to be addressed in accordance with requirements of the National Environmental Policy Act (NEPA).

The workshops will take place at the following locations:

February 28, 6:30 to 8:30 PM - Seabrook Community House, 1210 Anders Ave, Seabrook, TX

February 29, 6:30 to 8:30 PM - Jefferson County Agri-Life Auditorium, 1225 Pearl Street, Beaumont, TX (Enter on Franklin St., north side of bldg.)

March 6, 6:30 to 8:30 PM - Freeport Riverplace, 420 N. Brazosport Blvd., Freeport, TX

March 7, 6:30 to 8:30 PM - Galveston County Courthouse, 722 Moody Ave., Galveston, TX

If you would like to receive information or submit comments please notify us in writing at: SabinePassToGalvestonBay@usace.army.mil or at the following address:

U.S. ARMY ENGINEER DISTRICT, GALVESTON
ATTENTION: Sabine Pass to Galveston Bay, TX, Study
CESWG-PE-PL
P.O. BOX 1229
GALVESTON, TEXAS 77553-1229

For additional information please visit the project website at:
http://www.swg.usace.army.mil/sabinepasstogalvestonbay/

Attachment 2

to the location listed (see **ADDRESSES**). In order to be considered, each application must include:

1. The name of the applicant and the primary stakeholder interest category that person is qualified to represent;

2. A written statement describing the applicant's area of expertise and why the applicant believes he or she should be appointed to represent that area of expertise on the MRRIC;

3. A written statement describing how the applicant's participation as a Stakeholder Representative will fulfill the roles and responsibilities of MRRIC;

4. A written description of the applicant's past experience(s) working collaboratively with a group of individuals representing varied interests towards achieving a mutual goal, and the outcome of the effort(s);

5. A written description of the communication network that the applicant plans to use to inform his or her constituents and to gather their feedback, and

6. A written endorsement letter from an organization, local government body, or formal constituency, which demonstrates that the applicant represents an interest group(s) in the Missouri River basin.

To be considered, the application must be complete and received by the close of business on December 29, 2014, at the location indicated (see **ADDRESSES**). Applications must include an endorsement letter to be considered complete. Full consideration will be given to all complete applications received by the specified due date.

Application Review Process. Committee stakeholder applications will be forwarded to the current members of the MRRIC. The MRRIC will provide membership recommendations to the Corps as described in Attachment A of the *Process for Filling MRRIC Stakeholder Vacancies* document (*www.MRRIC.org*). The Corps is responsible for appointing stakeholder members. The Corps will consider applications using the following criteria:

- Ability to commit the time required.
- Commitment to make a good faith (as defined in the Charter) effort to seek balanced solutions that address multiple interests and concerns.
- Agreement to support and adhere to the approved MRRIC Charter and Operating Procedures.
- Demonstration of a formal designation or endorsement by an organization, local government, or constituency as its preferred representative.
- Demonstration of an established communication network to keep constituents informed and efficiently seek their input when needed.
- Agreement to participate in collaboration training as a condition of membership.

All applicants will be notified in writing as to the final decision about their application.

Certification. I hereby certify that the establishment of the MRRIC is necessary and in the public interest in connection with the performance of duties imposed on the Corps by the Endangered Species Act and other statutes.

Dated: November 13, 2014.

Brad Thompson,

Chief of Planning, Omaha District.

[FR Doc. 2014–27718 Filed 11–21–14; 8:45 am]

BILLING CODE 3720–58–P

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Intent To Prepare a Draft Environmental Impact Statement for the Sabine Pass to Galveston Bay, TX, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DoD.

ACTION: Notice of Intent.

SUMMARY: The Sabine Pass to Galveston Bay, Texas, study area encompasses six coastal counties on the upper Texas Gulf coast—Orange, Jefferson, Chambers, Harris, Galveston and Brazoria. The Draft Integrated Feasibility Report and Environmental Impact Statement (DIFR–EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) impacts in the study area. The environmental impact study will focus on environmental and social conditions currently present and those likely to be affected by potential future impacts of storm surge and ecosystem restoration opportunities. Several major historical surge events have occurred in the study area in the past 120 years. The most notable is perhaps the 1900 Storm, which inundated most of the island city of Galveston, TX, and adjacent areas on the mainland. The storm was responsible for over eight thousand deaths and up to $30 million in property damage. Hurricane Rita in 2005 resulted in storm surge of 9.2 feet in Port Arthur, TX, and just over 8 feet in Sabine Pass. Most recently, Hurricane Ike in 2008 produced storm surges of 14 feet near Sabine Pass and 11 to 12 feet across Sabine Lake. The City of Port Arthur was spared from the impacts of storm surge thanks to its existing 14- to 17-foot hurricane flood protection system. However, the remaining southern half of Jefferson County was inundated, with estimated high water marks reaching 18 to19 feet to the south and east of High Island. The City of Galveston was protected from Hurricane Ike's high energy surge impacts by the Galveston Seawall, but much of the City of Galveston was later flooded by about 6 to 10 feet of surge coming from the bay. The City of Texas City was protected from Ike's surge impacts by its existing hurricane flood protection system. At risk within the study area are approximately 2.26 million people living within the storm-surge inundation zone, three of the nine largest oil refineries in the world, 40 percent of the nation's petrochemical industry, 25 percent of the nation's petroleum-refining capacity, and three of the ten largest U.S. seaports.

DATES: Comments on proposed DIFR–EIS will be accepted through December 24, 2014.

ADDRESSES: U.S. Army Corps of Engineers, Galveston District, P.O. Box 1229, Galveston, TX 77553–1229. Emails may be sent to *Janelle.S.Stokes@usace.army.mil.*

FOR FURTHER INFORMATION CONTACT: Ms. Sheridan Willey, (409) 766–3917, Planning Lead, Plan Formulation Section, Regional Planning and Environmental Center; or Ms. Janelle Stokes, (409) 766–3039, Environmental Lead, NEPA/Cultural Resources Section, Regional Planning and Environmental Center.

SUPPLEMENTARY INFORMATION:

(1) *Background.* In 2011, the Corps of Engineers and non-Federal sponsor, the Texas General Land Office, agreed to rescope an earlier study to evaluate plans to develop CSRM and ER features over the entire six-county region covering the upper Texas coast. The study is authorized under Section 4091, Water Resources Development Act of 2007 Public Law 110–114.

(2) *Alternatives.* Structural alternatives that will be evaluated are: (1) A new surge protection system in Orange and Jefferson Counties, including small, navigable surge gates on Cow and Adams Bayous; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge; and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection Systems. Non-structural measures such as targeted buy-outs, will also be evaluated. Structural and non-structural alternatives to address storm

surge impacts in the Galveston Bay system, as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for future detailed analyses of feasible alternatives.

(3) *Scoping.* In February and March of 2012, four scoping meetings were held in the cities of Beaumont, Seabrook, Galveston and Freeport, TX. The scoping process involved Federal, State and local agencies, Federally-recognized Indian tribes, and other interested persons and organizations. Comments were received for 30 days following each scoping meeting. A total of 285 ideas were collected and these were collated and screened into a detailed list of structural and non-structural CSRM and ER measures that are being considered during this study. At this time, there are no plans for an additional scoping meeting. However, input from affected Federal, state and local agencies, affected Indian tribes, and other interested private organizations and parties is being solicited with this notice.

(4) *Coordination.* Further coordination with environmental agencies will be conducted under the National Environmental Policy Act, the Fish and Wildlife Coordination Act, the Endangered Species Act, the Clean Water Act, the Clean Air Act, the National Historic Preservation Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the Coastal Zone Management Act under the Texas Coastal Management Program.

(5) *DIFR–EIS Preparation.* It is estimated that the DIFR–EIS will be available to the public for review and comment in August, 2015.

Brenda S. Bowen,

Army Federal Register Liaison Officer.

[FR Doc. 2014–27723 Filed 11–21–14; 8:45 am]

BILLING CODE 3720–58–P

DEPARTMENT OF ENERGY

Commission To Review the Effectiveness of the National Energy Laboratories

AGENCY: Department of Energy.

ACTION: Notice of open meeting.

SUMMARY: This notice announces an open meeting of the Commission to Review the Effectiveness of the National Energy Laboratories (Commission). The Commission was created pursuant section 319 of the Consolidated Appropriations Act, 2014, Public Law 113–76, and in accordance with the provisions of the Federal Advisory Committee Act (FACA), as amended, 5 U.S.C. App. 2. This notice is provided in accordance with the Act.

DATES: Monday, December 15, 2014, 10:00 a.m.–3:30 p.m.

ADDRESSES: Institute for Defense Analyses, 4850 Mark Center Drive, Room 1301, Alexandria, VA 22311.

FOR FURTHER INFORMATION CONTACT: Karen Gibson, Designated Federal Officer, U.S. Department of Energy, 1000 Independence Avenue SW., Washington, DC 20585; telephone (202) 586–3787; email *crenel@hq.doe.gov*.

SUPPLEMENTARY INFORMATION:

Background: The Commission was established to provide advice to the Secretary on the Department's national laboratories. The Commission will review the DOE national laboratories for alignment with the Department's strategic priorities, clear and balanced missions, unique capabilities to meet current energy and national security challenges, appropriate size to meet the Department's energy and national security missions, and support of other Federal agencies. The Commission will also look for opportunities to more effectively and efficiently use the capabilities of the national laboratories and review the use of laboratory directed research and development (LDRD) to meet the Department's science, energy, and national security goals.

Purpose of the Meeting: This meeting is the fourth meeting of the Commission.

Tentative Agenda: The meeting will start at 10:00 a.m. on December 15. The tentative meeting agenda includes discussion on how the DOE Labs impact the national science and technology enterprise and further discussions on their relationship with industry. Key presenters will address and discuss these topics with comments from the public. The meeting will conclude at 3:30 p.m. The agenda will be posted when finalized and in advance of the meeting on the Lab Commission Web site: (*http://energy.gov/labcommission/commission-review-effectiveness-national-energy-laboratories*).

Public Participation: The meeting is open to the public. Individuals who would like to attend must RSVP to Karen Gibson no later than 5:00 p.m. on Wednesday, December 10, 2014 at email *crenel@hq.doe.gov*. Please provide your name, organization, citizenship, and contact information. Anyone attending the meeting will be required to present government issued identification. Individuals and representatives of organizations who would like to offer comments and suggestions may do so at the end of the meeting. Approximately 30 minutes will be reserved for public comments. Time allotted per speaker will depend on the number who wish to speak but will not exceed 5 minutes. The Designated Federal Officer is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business. Those wishing to speak should register to do so beginning at 10:00 a.m. on December 15.

Those not able to attend the meeting or who have insufficient time to address the committee are invited to send a written statement to Karen Gibson, U.S. Department of Energy, 1000 Independence Avenue SW., Washington DC 20585, or to email: *crenel@hq.doe.gov*.

Minutes: The minutes of the meeting will be available on the Commission Web site at: *http://energy.gov/labcommission*.

Issued in Washington, DC, on November 18, 2014.

LaTanya R. Butler,

Deputy Committee Management Officer.

[FR Doc. 2014–27742 Filed 11–21–14; 8:45 am]

BILLING CODE 6450–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9919–53–OAR]

California State Nonroad Engine Pollution Control Standards; Diesel Engines on Commercial Harbor Craft; Request for Within-the-Scope and Full Authorization; Opportunity for Public Hearing and Comment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The California Air Resources Board (CARB) has notified the Environmental Protection Agency (EPA) that it has adopted amendments to its Commercial Harbor Craft regulation (CHC amendments). By letter dated May 28, 2014, CARB asked that EPA authorize these amendments pursuant to section 209(e) of the Clean Air Act (CAA or Act). CARB seeks confirmation that certain of the amendments are within the scope of a prior authorization issued by EPA, and that certain of the amendments require and merit a full authorization. This notice announces that EPA has tentatively scheduled a public hearing to consider California's request for authorization of the CHC amendments, and that EPA is now

Attachment 3

Audubon TEXAS

901 S. Mopac, Bldg 2, #410
Austin, TX 78746
Tel: 512-306-0225
Fax: 512-306-0235
www.audubon.org
ipena@audubon.org

March 16, 2012

Colonel Christopher W. Sallese
District Engineer, Galveston District
U.S. Army Corps of Engineers
CESWG-PE-PL
P.O. Box 1229
Galveston, TX 77553-1229

RE: Sabine Pass to Galveston Bay, TX Study

Dear Colonel Sallese:

The eastern coast of Texas is vital habitat for a number of bird species, both resident and migratory. Audubon Texas has a long history of coastal stewardship and avian research in the region and would like to act as one of the regional contacts during the re-scoping effort stakeholder meetings.

Audubon owns, leases, and manages several islands within the proposed study area. These islands are critical to nesting colonial waterbirds including egrets, herons, spoonbills, skimmers, gulls and terns. Many of our islands are shrinking due to erosion caused by storm damage, subsidence and local ship traffic thus reducing the amount of available habitat for these and other waterbird species. We would be very interested in working with the USACE to find a solution to the degradation of several islands we oversee in West, East, and Galveston Bay as well as the Smith Point area. We would also like to avoid the problems of the past. A previous USACE project on Smith Point Island was completed but ineffective due to poor project oversight and miscommunication by contractors.

We are also very interested in the potential sand mining for beach nourishment from the west end of Galveston Island and dredging of San Luis Pass. The west end of Galveston Island supports a rich variety of habitat for both wintering and breeding shorebirds. The flats to the northeast of San Luis Pass offer foraging habitat for a number of herons, egrets, and gull species, as well as the endangered piping plover. Many of these birds depend on foraging areas on the Texas coast to replenish their fat reserves during migrations from wintering areas in South America to breeding habitat in Canada and the Artic. If major dredging work in San Luis Pass alters the hydrology and sediment behavior of these flats, many species would lose a vital patch of habitat. Wintering piping plover are also using the beaches along the southwestern coast of Galveston Island for foraging and need to be considered during any beach nourishment or armoring that may occur in these areas.

Please feel free to contact Iliana Pena, Director of Conservation or Bob Benson, Executive Director for Audubon Texas for additional information.

Sincerely,

Iliana A. Peña
Director of Conservation
Audubon Texas

From:	Leslie Barras
To:	Stokes, Janelle S SWG
Subject:	[EXTERNAL] DEIS for the Sabine Pass to Galveston Bay, TX, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study
Date:	Saturday, November 22, 2014 6:36:49 PM

Dear Ms. Stokes:

Please include me in the email list regarding the DEIS and FEIS for the above-referenced study. I understand, from Monday's Federal Register notice, that the DEIS may be issued in Aug. 2015.

Also, I am interested in the Section 106 consultation on the proposed undertaking and major federal action. When would you anticipate beginning the process of involving consulting parties?

Thank you,
Ms. Leslie Barras
912 W. Cypress Avenue
Orange, TX 7630

PUBLIC WORKSHOP
AND NEPA SCOPING MEETING FOR
IDENTIFICATION OF
STORM DAMAGE REDUCTION, ECOSYSTEM RESTORATION,
AND FLOOD RISK MANAGEMENT OPPORTUNITIES
IN
ORANGE, JEFFERSON, CHAMBERS, HARRIS,
GALVESTON, BRAZORIA COUNTIES

Comment Form

This form is provided for your comments regarding the U. S. Army Corps of Engineers, Galveston District Sabine Pass to Galveston Bay, Texas Study Project. Please use the space below, attaching additional pages if necessary. The form may be deposited in the comment box, mailed to the address provided below, or emailed to SabinePassToGalvestonBay@usace.army.mil. Future information will be posted to our website. http://www.swg.usace.army.mil/sabinepasstogalvestonbay/

We appreciate your interest in and contributions towards this project.

Comments:

Thank you for the opportunity to comment on this issue.

We've lived on Robinson Bayou for 25 years. We see wonderful wildlife and destructive flooding. I believe that conservation and enhancement of wetlands combined with responsible development and drainage can mitigate the effects of severe storms on those of us in inland tidal areas. We get slammed doubly:

- by storm surge pushing "upstream"
- by runoff pushing "downstream" (in surge-swollen bayous). We have seen larger waterways become dikes that block the flow of smaller ones.

My suggestions:

a) Conservation- I support your interest in protecting estuaries. I would like you to also consider parkways. They are narrow parks along waterways that are prone to flooding. They accommodate flood waters, support wildlife, and are popular with the public. They may have trails, recreation facilities, gardens, fish hatcheries, etc. Sometimes the land is donated by utilities. Maintenance may be supported by community groups.

b) Development- Neighborhoods, private and public buildings, sports fields, roads-- they are all on high ground that was not there 100 years ago. The volume and speed of runoff is more than waterways can hold. Some communities are trying to slow the volume of runoff but we also need some wider/deeper spots in the waterways that will slow the velocity of the water.

Comments due by March 16, 2012 to:

District Engineer, Galveston District
U.S. Army Corps of Engineers
Attn: Sabine Pass to Galveston Bay, TX Study
CESWG-PE-PL
P.O. Box 1229
Galveston, Texas 77553-1229

Please Print:

Your Name Kathleen Barth
Your Company/Org.
Address 2211 Bayou Drive
League City, TX 77573
email: Katy.Barth@hotmail.com

From: Boyers, Amy [mailto:Amy.Boyers@h-gac.com]
Sent: Wednesday, March 14, 2012 1:38 PM
To: SabinePassToGalvestonBay
Subject: Comments on the Sabine Pass to Galveston Bay Project

Thanks to the USACE and GLO for taking on the Sabine Pass to Galveston Bay Project. We appreciate the opportunity to provide comments. H-GAC urges the USACE and GLO to fully explore all structural and non-structural options and also to determine an equitable cost-benefit analysis for coastal wetlands and barrier island dune systems (non-structural) to include not only environmental benefits but also economic benefits.

Thank you,

Amy

Amy Boyers

Resiliency Coordinator

From: Michael W. Kovacs [mailto:KovacsMic@cityofgalveston.org]
Sent: Friday, March 16, 2012 8:26 AM
To: SabinePassToGalvestonBay
Cc: Kelly De Schaun
Subject: Comments on Galveston Area Study Project

Thank you for the opportunity to comment on the Corps of Engineer's study of the Storm Damage Reduction, ecosystem restoration, and flood risk management opportunities for the upper Texas coast. I would encourage the scoping plan to focus on more detailed reviews of the following:

Top Priority:

Comprehensive sediment management plan that encourages partnerships on the beneficial use of dredge materials wherever possible, and the maintenance of not only inlets and harbors, which is done very well as part of the current mission, but also including mitigating impacts of those activities and existing hard structures (jetties for example) by planning to address beach preservation, periodic beach nourishment, and a natural dune defensive system. A plan that acknowledges the responsibility of federal, state, and local governments in the management of passes, beaches, and dunes and seeks to form partnerships for addressing the missing pieces of natural beach and dune protection of shorelines on Galveston Island is critical.

Secondary Priorities:

Surge protection plan reviews of costs/benefits of concepts including a ring levee on the back of Galveston Island and the Ike Dike are of significant interest to our citizens and businesses.

Thanks again. Good luck in your endeavors to improve the upper Texas Coast. We are interested in being a major partner with you.

Michael W. Kovacs

City Manager

City of Galveston

From: Garrett Dolan [mailto:garrettdolan@earthlink.net]
Sent: Saturday, March 03, 2012 2:01 PM
To: SabinePassToGalvestonBay
Cc: bedient@rice.edu
Subject: Comments for the Sabine to Galveston Bay

Dear USACE/GLO.

Please find below my comments regarding the Sabine Pass to Galveston Bay, Texas re-scoping process that will result in a new Feasibility Cost Sharing Agreement.

Most of my comments are targeted at how and why decisions should be made for protecting the coast. There are two articles attached that will provide insight into my comments. I offer them as resources to help the management team. Thank you.

Recommendations:
• Understand the true natural process at work
Approach any analysis with the understanding that coastlines are dynamic environments that are in a constant state of flux. Further, coastal erosion, floods, hurricanes, etc…. are natural processes that have occurred for thousands of years and will continue to occur into the next century. Public health problems and property destruction occur when humans try to impose their will over these natural processes. Sustainability requires human involvement and interventions that align with nature's natural process.

• Make decisions based on science
The upper Texas coast is geologically, meteorologically, and hydrologically in a dynamic state of flux. All four of the major natural processes shaping the coast—subsidence, sediment supply and transport, global sea level rise, and tropical cyclones—are pro¬jected to continue transforming the shore¬line. Structural mitigation efforts that try to prevent these natural processes from occurring are a sure-fire way to create an extremely expensive program dependent upon constant infusions of taxpayer money. Further, it has been scientifically proven that structural mitigation efforts can in fact, speed up the change process. Please read the attached article "A Foundation for Developing a Coastal Sustainability Program in the Houston-Galveston Region" for a short synopsis the natural processes shaping the coast.

• Correct public policy "moral hazards" before any infrastructure is built
Along the Upper Texas coast, public policy intended to protect and make life more viable is actually creating "moral hazards" and escalating the financial burdens on government. There are several public policies at the local, state and federal levels of government that are working at cross purposes by allowing risky investment decisions that put people's livelihoods in jeopardy. If not addressed first, these policies will negate any benefit added by USACE mitigation efforts. The attached article "Policy and management hazards along the Upper Texas coast" explains the hazards in detail.

• Only use tax payer money to protect structures of national interest and security

The use of taxpayer money for the development of mitigation interventions should be exclusively reserved for those projects that are of national interest (i.e. Houston Ship Channel). Using federal money to protect the lifestyles of a very small minority of people is inequitable, unsustainable and ultimately, increases the number of people vulnerable to the adverse consequences of severe storms.

• Create a hierarchy of coastal protection measures
Conduct an analysis of coastal protection measures that prioritizes the prevention, reduction and hardening options available. Prevention measures are those actions that remove people and their structures from potential harm (i.e. buyouts). Reduction measures are those actions and public policies that seek to minimize the scope and scale of harm (i.e. changing National Flood Insurance Program). Finally, hardening, are capital improvement projects that seek to defend against harm (i.e. levee).

- Leverage financial resources of the project by financially supporting the modeling and impact analyses already underway by the SSPEED Center.

Thank you.

Garrett Dolan, Ph.D.
2106 Amber Glen Lane
Katy, TX 77494
281-395-2158
garrettdolan@earthlink.net

From: Nick Fratila [mailto:nfratila@brazoriainet.com]
Sent: Sunday, March 11, 2012 9:13 PM
To: SabinePassToGalvestonBay
Cc: ttaylor@computer.org; 'Mike Goodson'; linda@yellowstoneboat.com; 'Marie Breakiron'
Subject: San Bernard River

I attended the March 6 public COE/GLO meeting in Freeport as the co-chairman of the River Mouth Committee of the Friends of the River San Bernard non-profit organization.

For a long term solution for the San Bernard River water flow, I had suggested building a jetty at the mouth. Today, I received a very interesting photo of the intersection of the river and the Intracoastal Waterway (ICW) taken this month. Due to a strong current from Brazos River, the San Bernard flow looks like it is going into the ICW moving toward Sargent. Taking a good look at this intersection, doesn't it show that this is happening because some of the land is extending too far into the river? Wouldn’t this cause another problem in the water flow to the mouth? I am not sure who is the owner of that land, but a correction of the river banks may improve the river flow to the Gulf. I attached also a photo with my suggested correction of the river banks.

Best Regards,

Nick Fratila, P.E.
1126 County Road 432
Brazoria, TX 77422
(979) 964-4549
(409) 284-7862 Cell
nfratila@brazoriainet.com <mailto:nfratila@brazoriainet.com>

PUBLIC WORKSHOP
AND NEPA SCOPING MEETING FOR
IDENTIFICATION OF
STORM DAMAGE REDUCTION, ECOSYSTEM RESTORATION,
AND FLOOD RISK MANAGEMENT OPPORTUNITIES
IN
ORANGE, JEFFERSON, CHAMBERS, HARRIS,
GALVESTON, BRAZORIA COUNTIES

Comment Form

This form is provided for your comments regarding the U. S. Army Corps of Engineers, Galveston District Sabine Pass to Galveston Bay, Texas Study Project. Please use the space below, attaching additional pages if necessary. The form may be deposited in the comment box, mailed to the address provided below, or emailed to SabinePassToGalvestonBay@usace.army.mil. Future information will be posted to our website. http://www.swg.usace.army.mil/sabinepasstogalvestonbay/

We appreciate your interesting and contributions towards this project.

Comments:

Thank you for coming to Beaumont and taking our input.

We believe the construction of rock breakwaters along the Gulf Intracoastal Waterway in Jefferson County should have a high priority, since it is an economical solution to day-to-day silting, as well as storm surge erosion of the banks, which threatens precious wetlands and marsh ecosystems.

Hurricane Ike caused 30 feet of erosion along the banks of the G.I.W.W., which could have been prevented by rock breakwaters.

Included herein are aerial photographs taken to 1-ft resolution by the Jefferson County Appraisal District before and after Hurricane Ike. These photographs prove the effectiveness of these breakwaters, which not only prevent erosion, but encourage ground and vegetation buildup between the breakwaters and the shoreline. These breakwaters cost $130 per linear foot.

Such severe erosion has occurred along the G.I.W.W. in Jefferson County, that the placement of these breakwaters in no way restricts navigation. Construction of the rock breakwaters is easily permitted through the COE's regulatory branch.

Examples and details of the breakwaters are included herein.

Comments due by March 16, 2012 to:

District Engineer, Galveston District
U.S. Army Corps of Engineers
Attn: Sabine Pass to Galveston Bay, TX Study
CESWG-PE-PL
P.O. Box 1229
Galveston, Texas 77553-1229

Please Print:

Your Name **Doug S. Canant, P.E., R.P.L.S., C.F.M.**
Your Company/Org. **Jefferson County Drainage District No. 6**
Address **6550 Walden Road**
Beaumont, Texas 77707
email: **dscanant@dd6.org**

The following six aerial photographs illustrate the erosion of the shoreline along the Gulf Intracoastal Waterway, primarily during Hurricane Ike.

Hurricane Ike occurred in September of 2008, and included record breaking storm surge levels covering the coast in Jefferson County and 22 miles inland. The storm surge reached elevation 21' above sea level near the coast. Most of the ground along the G.I.W.W. in Jefferson County is at elevation 5' above sea level or lower.

Aerial photos were taken to a 1-ft resolution in 2006 and in 2009. We traced the shoreline in three locations on the 2006 aerials. One of these locations had rock breakwater in place during Hurricane Ike. We then superimposed the shoreline on the 2009 aerial to show the amount of shore that was lost in each instance. The areas with no breakwater protection in place during the hurricanes showed significant shoreline erosion; that is 12 to 30 feet. The areas with rock breakwater in place showed no erosion, and actually showed a gain of ground between the shoreline and the breakwater, as well as signification vegetation growth.

From: William Kiene [mailto:william.kiene@noaa.gov]
Sent: Tuesday, April 09, 2013 4:40 PM
To: SabinePassToGalvestonBay
Subject: Status of Sabine Pass to Galveston Bay Study

As someone who participated in the public workshops regarding this study, I am wondering what has happened to this effort by the ACOE to study the options for protecting the region from storm-surge flooding. I strongly believe that all options should be investigated to ensure that an effective, affordable and practical solution is found. The only option that seems to so far be under investigation (not by the ACOE) is the Ike Dike proposal. Has the ACOE study been completed or was it terminated?

Regards,

William E. Kiene, Ph.D.
NOAA's Office of National Marine Sanctuaries
Southeast, Gulf of Mexico and Caribbean Region
4700 Avenue U, Building 216
Galveston, Texas 77551
Tel: (409) 621-5151 x109
Fax: (409) 621-1316
Mobile: (409) 550-6214

William.Kiene@noaa.gov

Statement for Delivery
At Corps of Engineers Scoping Meeting
March 6, 2012

My name is Craig Sherlock and I am representing LaBelle General, Inc, LaBelle Properties LLC and the Broussard family. We own approximately 6,000 acres, consisting primarily of wetlands, in the Salt Bayou Basin in southern Jefferson County near Sabine Pass.

During recent years, we have become aware of the conversion of a substantial surface acreage of our property to open water as a result of substrate erosion, subsidence, mortality of native vegetation, increases in water salinity, and acceleration of beach erosion. The loss of surface acreage is ongoing.

We believe that these proximate causes are associated with or result from a number of government-implemented actions which collectively resulted in the conversion of at least the lower portion of the Salt Bayou Basin from a historic freshwater wetland to a much more saline condition. These actions include, but may not be limited to the construction of the Gulf Intracoastal Waterway, the Sabine Pass Jetty, and the Keith Lake Fish Pass.

Construction of the Intracoastal Waterway isolated the existing Salt Bayou drainage basin from approximately 60 percent of its historic freshwater watershed, and served as a source for introduction of more saline water to the Salt Bayou basin. The construction of the Sabine Jetty system interrupted longshore flow of materials which historically nourished the beaches west of Sabine Pass, contributing to the erosion of the beach ridge and increasing the frequency of salt water overwash from the Gulf of Mexico into the middle portion of the Salt Bayou Basin. The construction of the Keith Lake Fish Pass has resulted in a dramatic increase in tidal exchange between the Salt Bayou Basin and the Sabine Neches Waterway.

Collectively, these projects have decreased the amount of freshwater entering the Salt Bayou Basin, increased tidal exchange, introduced large volumes of saline water, and caused mortality of freshwater wetlands vegetation and erosion of surface features. The resulting conditions effectively result in the change in the character of and loss of surface features on our property, diminishing and ultimately depriving us of the beneficial use of our property and effectively taking our land. Additionally, the conversion of emergent wetlands to open water compromises the ability of the wetlands in the Salt Bayou Basin to attenuate storm surge, increasing the likelihood of flooding in residential and industrial areas lying to the north.

We understand that the Corps of Engineers has developed a plan to mitigate these adverse impacts on the Salt Bayou basin. The plan reportedly includes beach renourishment to attenuate breaching of the beach ridge by high-tides and storm events in the Gulf, reduction in the capacity of the Fish Pass to deliver saline water

to the system, and reconnection of the system to that portion of the portion of the watershed lying north of the Intracoastal Waterway through construction of a system of inverted siphons. Collectively, these actions would minimize the ongoing taking of our land and its beneficial use, restore the Salt Bayou Basin to a less saline condition, restore a measure of the Salt Bayou Basin's traditional ecological function, improve wildlife habitat and improve the capacity of the Salt Bayou wetlands to attenuate storm surge damage to residential and industrial lands lying to the north.

We respectfully request your priority implementation of these measures. Thank you for your consideration.

Sincerely,

Craig J. Sherlock

From: Susan [mailto:dolphints@erfw.net]
Sent: Tuesday, March 06, 2012 3:15 PM
To: SabinePassToGalvestonBay
Subject: Freeport Meeting Tonight - Question

Thank you for hosting these type of events. I did not know these informational events occurred until last night and just received the letter of announcement which indicates questions may be submitted. I plan to attend this evening and hope I am not too late to ask a question?

Background: There is a 500 acre tract of land located along County Road (CR) 792, just off of FM 523 near the City of Oyster Creek. The property is not located in the jurisdiction of any municipality but is under Brazoria County's jurisdiction. This tract of land backs up to the Brazoria National Wildlife Refuge. There is over 300 acres of wetland on this property. It is my understanding the the owner intends to elevate 22 acres 16 feet above natural grade, and construct a retention pond of 22 acres with elevated berms/sides. I also understand that 80 acres will be used for equipment and supplies. The 16 foot change in natural grade appears like it would have a significant impact on the lands natural drainage not only to the refuge but the remaining wetlands acreage. Question: What impact will a Hurricane Ike type storm surge have not only to the wetlands but to the surrounding properties in your knowledgeable opinion?

Thank you for your time.

Susan Luycx
1557 Blue Water Drive
Freeport, Texas 77541

From: McAlister, Gay [mailto:gmcalist@mail.smu.edu]
Sent: Wednesday, February 29, 2012 4:35 PM
To: SabinePassToGalvestonBay
Subject: Storm Damage Reduction, Environmental Restoration, and Flood Risk in Galveston County

I own property in Galveston County (995 Alicia, Gilchrist 77617 and 1044 Waco, Gilchrist, 77617) on Bolivar Peninsula and I strongly request consideration of a beach renourishment project on Bolivar Peninsula. Highway 87 runs the length of the peninsula and the only land access to the peninsula. This land transportation route needs to be protected, as well as serious erosion that occurred as a result of Hurricane Ike 9/13/2008. Please give this request strong consideration as I believe it merits approval as service to the permanent home owners on the peninsula as well as the thousands of summer tourists.
Thank you,
Gay McAlister

Gay McAlister, Ph.D., LPC-S
Associate Director of Supervision
Southern Methodist University
5228 Tennyson, Ste. 102G
Plano, Texas 75024
972-473-3452 (Office)
972-473-3490 (Fax)

From: Tyler Ortego [mailto:tyler@oratechnologies.com]
Sent: Tuesday, April 24, 2012 9:49 AM
To: SabinePassToGalvestonBay
Subject: OysterBreak Shoreline Protection

Dear project team,

We developed the OysterBreak Shoreline Protection system for the purpose of delivering engineered shoreline protection while enhancing the health of our estuaries. I think you will find the OysterBreak an interesting alternative that is consistent with the comprehensive approach planned for the Sabine Pass to Galveston study.

The OysterBreak Shoreline Protection System uses the gregarious nature of oysters to create engineered shoreline protection structures. The OysterBreak design consists of interlocking concrete armor units that can be configured in any number of ways. The individual armor units are made of OysterKrete, a proprietary concrete developed specifically for growing oysters. Key benefits of the OysterBreak over rock structures are the ecological enhancements, low bearing pressure and ease of construction. We designed the OysterBreak as an engineered alternative to rock breakwaters, so you can use it in similar applications. More information can be found at http://www.wayfarertech.com/oysterbreak or at www.oratechnologies.com.

Would you recommend a point of contact, either at the Galveston District or with your consultants?

Thank you,

Tyler Ortego, PE
ORA Engineering, LLC
www.ora-eng.com
ORA Technologies, LLC
www.Oratechnologies.com <http://www.oratechnologies.com/>
Mobile: (225) 229-2539
http://www.linkedin.com/in/tylerortego
Twitter: @TylerOrtego

From: Mark Vincent [mailto:mvincent@poha.com]
Sent: Wednesday, March 14, 2012 3:08 PM
To: SabinePassToGalvestonBay
Cc: James Jackson
Subject: Sabine Pass to Galveston Bay, Tx Regional Risk Reduction Study

The Port of Houston Authority offers the following general comments, as the District prepares the rescoped project:

1. Public and private interests are intermingled along the coast. Proposed solutions need to consider industry participation or sponsorship of various projects during project execution phases.

2. The national significance of certain industries along the Houston Ship Channel needs to be appropriately weighted in project prioritization.

3. Structural solutions need to carefully consider impacts on transportation systems that serve industry along the channel, particularly rail. Many of the industries rely on railroad access, which cannot easily accommodate levees, flood gates, or other protective features.

4. Structural solutions that involve gates within the water system itself have the potential to significantly impact commerce, through use (closures), or indirectly through increased silitation or siltation patterns—both of which can disrupt maritime commerce for extended periods.

5. The potential scope of the project (including geographic extent) may tax the ability of the Corps to produce a viable and defendable plan under limited time and cost (3 years, $3 mil). Subdivision of the scope into smaller, mutually supported projects should be considered.

The scoping meeting presentation includes the comment, “USCG estimates that a one month closure of a major port like Houston would cost the national economy $60 billion”. If possible, PHA respectfully requests that the study managers informally share the source of that comment, so PHA can better support funding priorities for channel maintenance and operation, region wide.

Sincerely,

Mark Vincent, P.E.

Channel Development Director
Port of Houston Authority
111 East Loop North
Houston, Texas 77029
(713) 670-2605 Office
(713) 670-2427 Fax
mvincent@poha.com <mailto:ajames@poha.com>
www.poha.com <http://www.poha.com/>

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

February 6, 2012

INVITATION TO PARTICIPATE IN PUBLIC WORKSHOP AND NEPA SCOPING MEETING FOR

IDENTIFICATION OF STORM DAMAGE REDUCTION, ECOSYSTEM RESTORATION, AND FLOOD RISK MANAGEMENT OPPORTUNITIES IN ORANGE, JEFFERSON, CHAMBERS, HARRIS, GALVESTON, BRAZORIA COUNTIES

The U.S. Army Corps of Engineers, Galveston District and the Texas General Land Office along with their Regional County partners, are seeking individuals, groups or organizations interested in participating in public workshops for the purpose of gathering ideas for hurricane / tropical storm damage reduction, ecosystem restoration, and flood risk management opportunities in Orange, Jefferson, Chambers, Galveston, Harris, and Brazoria Counties. This outreach effort is being conducted in conjunction with the Sabine Pass to Galveston Bay, Texas Study. The meeting will also serve as a scoping meeting for the purposes of identifying significant issues to be addressed in accordance with requirements of the National Environmental Policy Act (NEPA).

The workshops will take place at the following locations:

February 28, 6:30 to 8:30 PM - Seabrook Community House, 1210 Anders Ave, Seabrook, TX

February 29, 6:30 to 8:30 PM - Jefferson County Agri-Life Auditorium, 1225 Pearl Street, Beaumont, TX (Enter on Franklin St., north side of bldg.)

March 6, 6:30 to 8:30 PM - Freeport Riverplace, 420 N. Brazosport Blvd., Freeport, TX

March 7, 6:30 to 8:30 PM - Galveston County Courthouse, 722 Moody Ave., Galveston, TX

If you would like to receive information or submit comments please notify us in writing at: SabinePassToGalvestonBay@usace.army.mil or at the following address:

U.S. ARMY ENGINEER DISTRICT, GALVESTON
ATTENTION: Sabine Pass to Galveston Bay, TX, Study
CESWG-PE-PL
P.O. BOX 1229
GALVESTON, TEXAS 77553-1229

For additional information please visit the project website at:
http://www.swg.usace.army.mil/sabinepasstogalvestonbay/

From: Terren & Karen [mailto:tkroark@earthlink.net]
Sent: Friday, March 16, 2012 11:05 AM
To: SabinePassToGalvestonBay
Subject: Comments to the Sabine Pass to Galveston Bay project

I attended the public meeting that was held Wednesday, March 7, 2012 in Galveston. I would like to suggest that a long term solution be addressed. With the prospect of 9 million people populating the area in the next 50 years; something needs to be done to protect the land, erosion and life. I heard things like using things that were done in Louisiana. Why? They had a heavy rainstorm just this past week and 2 parishes were flooded. You need to start thinking outside the box. Look at the dike system in Holland. I lived in Europe for over 3 years and I have been to Holland. Europe spends money on protecting their land. Why? Because land is precious to them since the population of many of those countries exceeds the amount of land available to them so they protect it. Holland is a little country; yet they knew the value of their land was worth protecting and put in a large dike system. Europe has been around a long time and the people there have learned a lot from their years of habitation. Whereas the United States, who is young in relation to Europe, seems to think that "we" can only have the good ideas. I have lived there. Europe actually has some very good ideas and we need to really embrace their knowledge and history. They learned what happens when you take things for granted which is what we do especially here in Texas. Protect our seashores. I spent many a summer vacation on the beaches in Texas. That was all my family could afford. If we don't take care of them now, there won't be anything left for future generations. We need to think outside the usual box. Some of those ideas are only good for a short period of time. Do something that will be lasting. Use our tax money, both state and national, for something that is going to preserve our seashore and life itself. The millions of dollars that are lost every time a hurricane comes our way, will be reduced greatly if we spend the money on something that will protect us for many, many years to come. Don't use Louisiana as a model-please! Go somewhere that they know how to protect their precious land and people. Think outside the box-please!

Thank you,

Karen Roark

2214 Merrill Hills Circle

Katy, TX 77450

Own property on the West End of Galveston

tkroark@earthlink.net

PUBLIC WORKSHOP
AND NEPA SCOPING MEETING FOR
IDENTIFICATION OF
STORM DAMAGE REDUCTION, ECOSYSTEM RESTORATION,
AND FLOOD RISK MANAGEMENT OPPORTUNITIES
IN
ORANGE, JEFFERSON, CHAMBERS, HARRIS,
GALVESTON, BRAZORIA COUNTIES

Comment Form

This form is provided for your comments regarding the U. S. Army Corps of Engineers, Galveston District Sabine Pass to Galveston Bay, Texas Study Project. Please use the space below, attaching additional pages if necessary. The form may be deposited in the comment box, mailed to the address provided below, or emailedtoSabinePassToGalvestonBay@usace.army.mil. Future information will be posted to our website. http://www.swg.usace.army.mil/sabinepasstogalvestonbay/

We appreciate your interest in and contributions towards this project.

Comments:

After attending your 2/28 Meeting, it was quite obvious that you are preparing to tackle a big problem. Although I suffered significant damage from IKE, my damages were minimal compared to those of many of my neighbors here in Nassau Bay. Since IKE, I have attended several meetings @ Rice & other venues where different solutions were discussed. Some of this effort was made possible by grants from private organizations like Houston Endowment.
Although not as grand as the "IKE DIKE", the solutions offered in the SSPEED Study certainly look like they should be looked at closely by your workshop. It seemed like you gave the SSPEED effort only a cursory mention in your presentation. In this time of deficits and excess spending, it would be terrible not to take full advantage of the excellent works already completed. The SSPEED study had input from at least 6 major Universities. I was especially impressed with the hydraulic modeling and computer work done at The University of Texas. This modeling showed that had IKE come ashore @ San Luis Pass, I probably wouldn't be sitting here @ my desk writing this note
Certainly there is a lot of Engineering work left; but, please assure me that we are going to take full advantage of the good works that have already been completed. Too many times it seems like our Government Projects waste a lot of time and tax money.
Good luck
Joseph Wayne Roberts
18530 Barbuda Ln
Houston, TX 77058
waynerob@comcast.net

Comments **due by March** 16, **2012** to:

District Engineer, Galveston District
U.S. Army Corps of Engineers
Attn: Sabine Pass to Galveston Bay, TX Study
CESWG-PE-PL
P.O. Box 1229
Galveston, Texas 77553-1229

Please Print:

Your Name _____

YourCompany/O~. _____

Address _____

_____

_____

email: _____

SIERRA CLUB
FOUNDED 1892

Houston Regional Group
P. O. Box 3021
Houston, Texas 77253-3021
713-895-9309
http://texas.sierraclub.org/houston/

February 28, 2012

Colonel Christopher W. Sallese
District Commander
U.S. Army Engineer District
Galveston
Attention: Sabine Pass to Galveston Bay, Texas, Study
CESWG-PE-PL
P.O. Box 1229
Galveston, Texas 77553-1229

Dear Colonel Sallese,

Enclosed are the scoping comments of the Houston Regional Group of the Sierra Club (Sierra Club) for the U.S. Army Corps of Engineers (Corps) National Environmental Policy Act (NEPA) process for the "Identification of Storm Damage Reduction, Ecosystem Restoration, and Flood Risk Management Opportunities in Orange, Jefferson, Chambers, Harris, Galveston, and Brazoria Counties Study," also known as the "Sabine Pass to Galveston Bay, Texas Study (SPGBTS)."

1) The Corps should ensure that an environmental impact statement (EIS) accompany the SPGBT so that a programmatic landscape-scale picture is provided to citizens and decision-makers about the environmental impacts of the study recommendations. The public needs this information so that it can review, comment on, and understand the full environmental impacts of the study and any proposals and projects that are considered and result from the study.

2) To guide the Sierra Club with regard to this issue the Lone Star Chapter of the Sierra Club Executive Committee passed on July 18, 2009 the following resolution:

Resolution on Upper Texas Coast Protection

Whereas, the Upper Texas Coast (including Galveston Island and Bolivar Peninsula) provides important historic, recreational, ecologic, economic, scenic, other values and benefits, and places for people to live;

Whereas, 95% of marine organisms in the Gulf of Mexico, at some point in their life cycle, depend upon access to healthy bays and estuaries;

Whereas, the Upper Texas Coast has longtime natural shoreline erosion and accretion, exacerbated by human causes;

Whereas, the Upper Texas Coast has many important natural areas including shallow water areas; shallow water mud and sand bottoms; beaches; sand dunes; coastal

prairie; freshwater marsh; brackish water marsh; salt water marsh; mud flats; coves, bays, and estuaries; riparian or bottomland hardwood forested wetlands; and other important habitats;

Whereas, the beaches of Galveston County are now providing habitat for recovering endangered species, specifically the head-started Kemp's Ridley Sea Turtle and the Piping Plover;

Whereas, climate change is exacerbating existing flooding, subsidence, and rising sea level, thus increasing the potential for hurricane and storm damage problems on the Upper Texas Coast;

Whereas, it is important to recognize the goals of removing people and structures from harm's way, since hurricanes and flooding threaten our coast, while protecting natural ecosystems and functioning ecological processes on the Upper Texas Coast;

Be it therefore resolved, that the Sierra Club supports careful consideration of the protection of the Upper Texas coast and communities on Galveston Island and Bolivar Peninsula using the following principles:

1. The protection of Galveston Island and Bolivar Peninsula should be part of an Upper Texas Coast Erosion and Accretion Regional Plan (UTCEARP) which addresses coastal erosion and accretion; restoration and protection of natural coastal erosion and accretion processes so that they function naturally or more naturally than currently; protection of natural ecosystems; steers development away from more vulnerable natural coastal areas and those areas that are more vulnerable to hurricane and storm damage; and is implemented from Sabine Lake to Matagorda Bay.

2. The UTCEARP should focus any hard erosion solutions, considered compatible with the UTCEARP, on developed areas near the seawall in the City of Galveston proper, and allow no artificial structures that would impede the natural currents and salinity of Galveston Bay, or impede access to the bay of those marine organisms that depend upon it.

3. The UTCEARP must protect shoreline features that provide natural erosion protection like beaches, sand dunes, offshore sand replenishment areas, freshwater inflows that provide new sediment to the coastal shoreline system, and habitat for endangered species.

4. The UTCEARP must restore natural coastal shoreline system features like current sediment movement processes and remove obstacles to sediment movement and transport along the Upper Texas Coast.

5. The UTCEARP must ensure that adjacent and nearby areas do not have their shoreline erosion and accretion negatively impacted or their risk increased by implementation of the UTCEARP.

6. The UTCEARP must ensure that the Texas Open Beaches Act public "rolling easement" and access for public recreation, protection of existing public lands, and other purposes is not diminished.

7. The UTCEARP must assess and determine the environmental impacts and mitigation of these impacts due to any encouragement of additional development in flood and storm prone areas along the Upper Texas Coast caused by the implementation of the UTCEARP.

8. The UTCEARP must protect the scenic beauty of Galveston Island, Bolivar Peninsula, and the Upper Texas Coast.

9. Any UTCEARP must not encourage further development on more vulnerable natural coastal areas and areas that are more flood and storm prone (like West Galveston Island) and thus put more people; property; and sensitive areas in danger.

The principles embedded in this resolution guide these comments and the Sierra Club requests that the Corps consider this resolution when conducting the SPGBTS.

3) These Sierra Club scoping comments use the term "large structures" to describe any single storm damage reduction structural measure or system of storm damage reduction structural measures like dikes, gates, seawalls, and similar hard structural measures.

4) The Corps should, via the SPGBTS, make land acquisition one of the priority strategies to provide restoration for the Upper Texas Gulf Coast (UTGC) in the EIS. Land acquisition is permanent (fee title acquisition and conservation easements in perpetuity). Fee title acquisition allows restoration without other owners to modify or impede restoration.

The Sierra Club favors on the UTGC, from the Texas – Louisiana border to the end of Matagorda County, acquisition of areas (priority ecosystems) to be restored and added to existing public or land trust lands. Some of these priority ecosystem areas include:

1. The Katy Prairie, in western Harris County and eastern Waller County, particularly additions to and adjoining to existing conservation lands that have been protected by the Katy Prairie Conservancy. This includes coastal prairies and prairie wetlands like prairie pothole wetlands, pimple mounds, and gilgai.

2. The Eastern Chenier Plain, from Interstate (I) 45 east to the Texas – Louisiana border which includes coastal prairies and marshes in Anahuac National Wildlife Refuge, McFaddin National Wildlife Refuge, J.D. Murphree Wildlife Management Area, Candy Cain Abshier Wildlife Management Area, Nature Conservancy Texas City Prairie Preserve, Texas Point National Wildlife Refuge, Sea Rim State Park, and Scenic Galveston lands on Galveston Bay.

3. The Western Chenier Plain, from I-45 west to the end of Matagorda County and includes coastal prairies, marshes, and the important Columbia Bottomlands habitat in Brazoria National Wildlife Refuge, San Bernard National Wildlife Refuge, Big Boggy National Wildlife Refuge, Brazos Bend State Park, Stephen F. Austin State Park, Nannie M. Stringfellow Wildlife Management Area, Christmas Bay Preserve, Galveston Island State Park, and Scenic Galveston lands on Galveston Bay.

4. The Trinity River Floodplain and Delta, which includes bottomland hardwood forested wetlands in the Trinity River National Wildlife Refuge and U.S. Army Corps of Engineers Wallisville Lake Project.

5. Farther inland, but still mostly in or near the coastal zone, Sam Houston National Forest and Big Thicket National Preserve which include upland, slope, and bottomland hardwood forests, wetlands, and aquifer recharge areas.

5) The Corps should, via the SPGBTS, make climate change an issue in the EIS. The SPGBTS must analyze climate change and its impacts on the coast and any alternatives for shoreline protection. With current climate change, we can expect a sea level rise of three feet over the next hundred years.

Climate change will alter existing ecosystems and human inhabited areas and make it more difficult for plants/animals and humans to adapt successfully to these changed ecosystems. The Corps must address questions like:

1. How will the UTGC be affected by climate change?

2. What can be done to create more resilient and resistant habitats/ecosystems?

3. What can the Corps do to reduce carbon dioxide (CO2) or other greenhouse gas emissions on the UTGC?

4. What can be done to assist plants/animals and humans so they can adapt to climate change?

The Corps should prepare and include in the draft EIS, a climate change ecological resilience and resistance plan (CCERRP). The CCERRP will assess the biological and ecological elements in the UTGC and the effects that climate change has had and will have on them. The CCERRP will assist plants, animals, and ecosystems in adapting to climate change and would require monitoring of changes and mitigation measure effectiveness. The CCERRP would be based on:

1. Protection of the existing ecosystems functions on the UTGC.
2. Reduction of stressors on the ecosystems on the UTGC.

3. Restoration of natural functioning ecological processes on the UTGC.

4. Use natural recovery on the UTGC, in most instances.

5. Acquisition of buffers/corridors to expand and ensure connectivity of ecosystems on the UTGC.

6. Intervention to manipulate (manage) ecosystems on the UTGC only as a last resort.

7. Reduction of greenhouse gas emissions on the UTGC.

6) The Corps should, via the SPGBTS, make restoration that is done via habitat mitigation and is maintained in perpetuity an issue in the EIS.

7) The Corps should, via the SPGBTS, make the restoration of adequate freshwater inflows and instream flows for bays and estuaries on the UTGC an issue in the EIS. This action supports this natural mechanism that delivers sediments to the coast for shoreline accretion and stability.

8) The Corps should, via the SPGBTS, make the perpetual monitoring of restoration work done an issue in the EIS to ensure that the restoration is maintained and continues to provide the natural functioning ecological processes, values, and benefits that were envisioned it would.

9) The Corps should, via the SPGBTS, work with the Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, and the National Marine Fisheries Service via an agreement to ensure that a more focused Section 404 process provides mitigation for priority ecosystems. This should be an issue in the EIS. In addition, existing public lands or private lands that are already protected should be used as the foundation for building a natural coastal protection system.

10) The Corps should, via the SPGBTS, make a buy-out program with a perpetually ready to use fund an issue in the EIS. Such a fund would be established so that when natural or human disasters occur, impacted properties can be bought immediately and the land turned back into natural functioning ecosystems, allow retreat from the coast, and provide natural buffers for the protection of land and people.

11) The Corps should, via the SPGBTS, make the level of enforcement and compliance for coastal protection an issue in the EIS. Currently, the level of enforcement and compliance for coastal protection is not sufficient to ensure long-term and maintenance of natural ecological processes, values, and benefits. More resources are needed (money, people, equipment) for enforcement and compliance for the long-term. A fund that provides money for long-term enforcement, monitoring, and compliance would help provide protection in perpetuity.

12) The Corps should, via the SPGBTS, make prevention of the widening of the Gulf Intracoastal Waterway (GIWW) due to boat wake erosion an issue in the EIS. The

GIWW should be restored to its approved width and damages that have occurred to natural lands should be mitigated. Not only does the widening cause loss of coastal prairie and marshes but it cuts off freshwater flows across the land and changes the type of marsh, based on salinity, so the actual natural wetlands community changes or is extinguished.

13) The Corps should, via the SPGBTS, within Brazoria County, have an alternative that buys out as many residences/businesses as possible along County Road (CR) 257 (Blue Water Highway, a 10 mile stretch of coastal road) in the EIS. Such a program would ensure that people are permanently protected and out of harm's way.

Follets Island is one of the most vulnerable barrier islands (really a barrier peninsula like Bolivar Peninsula) on the Texas Coast. This is due to its narrowness, low elevation, and the number of storm overwashes or breaches that have occurred across Follets Island or beyond the road on the existing right-of-way (ROW).

Part of CR 257 would remain on Follets Island and allow fishers, hunters, and birders access. However, with a buyout people and their property would not be at risk to erosion, flooding, or storm surge because structures and the land they are on would be bought up wherever there are willing sellers. This is a low maintenance alternative that could rely on gravel and other relatively low cost materials to keep part of CR 257 open. This is an attractive alternative since Brazoria County does not have the funds to maintain CR 257 when it is damaged by erosion, flooding, or storms.

The Sierra Club is concerned that storm surge from a significant hurricane will undermine the revetment structure along CR 257 and daily tidal erosion will reduce the energy absorbing soil that is placed over the revetment.

The construction costs of the revetment were estimated to be $29 million. Because beach re-nourishment (a part of the proposal), once started will have to be continued in perpetuity and because beach grade sand is in short supply in the Galveston Bay area this will result in additional costs. Even if the revetment withstands storms and every day tidal erosion (which averages 10 feet of beach loss/year on Follets Island according to the Bureau of Economic Geology) only 3.5 miles of the 10 mile stretch have had the revetment installed. This means additional breaches will occur which will require revetment or other structural solutions to save the road. It therefore is not outrageous to estimate that construction costs and environmental impacts of shoreline protection for CR 257 may be $100 million or more.

Even this may underestimate the costs and environmental impacts of protection of CR 257 since offshore berms may also be needed to catch enough sand for beach re-nourishment. Due to the minimal sand in the system (the sandy shore-face is only a few 100 feet wide before mud and a steep drop-off are encountered) most of which is within the long-shore transport system (refer to Rice University sediment core studies from the summer of 2007) the result would be robbing current shorelines to acquire sand where CR 257 exists, if there is enough sand in the system to make a difference.

The Sierra Club has similar concerns about Bolivar Peninsula. A buy-out program for willing sellers there also should be considered in the SPGBTS.

14) The Corps should, via the SPGBTS, make the effect that shoreline protection projects have on erosion an issue in the EIS. Shoreline protection projects must not make erosion worse somewhere else or reduce long-shore current sediment loads downstream from project locations.

15) The Corps should, via the SPGBTS, make Highway 87 and other projects that destroy or alter beaches, dunes, and wetlands an issue in the EIS. Highway 87 cannot be justified in the location it is currently in. Any movement inward will destroy significant wetlands and alter wetland hydrology for a non-water dependent action.

16) The Corps should, via the SPGBTS, make hard structures like seawalls, extensive rock groins, jetties, or similar projects an issue in the EIS. These projects often cause further losses of shoreline and beaches and require even more shoreline erosion control.

17) The Corps should, via the SPGBTS, make the use of natural or soft erosion control methods like marsh planting, **some** beach re-nourishment, and the offshore insertion of flexible materials that assist in sediment dropout an issue in the EIS. These projects can have environmental impacts if not located properly or if sources of beach re-nourishment sand are in biologically important areas.

18) The Corps should, via the SPGBTS, make the impacts that trapping of sediments in inland reservoirs an issue in the EIS. The trapping of sediments in inland reservoirs have impacts on shoreline erosion and the EIS should analyze how these trapped sediments could be released in an environmentally safe manner and returned to the coast.

19) The Corps should, via the SPGBTS, make impacts that trapping of sediments by port projects and waterway improvements have an issue in the EIS. These projects have impacts on shoreline erosion and the EIS should analyze how these trapped sediments can be released in an environmentally safe manner and be returned to the coast.

20) The Corps should, via the SPGBTS, make the free operation of natural shoreline erosion process an issue in the EIS.

21) The Corps should, via the SPGBTS, make the protection of existing natural sand dunes an issue in the EIS.

22) The Corps should, via the SPGBTS, make continued building in 100-year floodplains, the hurricane zones, dunes, beaches, and marshes an issue in the EIS.

The Corps must ensure that this study does not encourage shoreline erosion producing developments.

23) The Corps should, via the SPGBTS, make the protection of existing riparian wetlands, freshwater wetlands, and all non-jurisdictional wetlands which naturally assist in control of shoreline erosion, an issue in the EIS.

24) The Corps should, via the SPGBTS, make the proposed bridge from Galveston to Bolivar an issue in the EIS. This bridge would exacerbate shoreline erosion directly, by its design and operation, and particularly indirectly due its impetus for development in coastal prairie, rangeland, wetlands, and marshes on Bolivar Peninsula. This new development will result in the loss of an important way of life and destroy natural erosion control features like beaches, dunes, marshes, prairies, wetlands, and vegetated areas.

25) The Corps should, via the SPGBTS, make resort/second homes and commercial properties for persons who have built in hurricane and flood prone areas an issue in the EIS. The risk of living near the Gulf of Mexico is well-known. Public works projects that protect the few, many of who can afford to protect themselves or move elsewhere, and require that the many pay for irresponsible lifestyles are not in the public interest. These actions ensure further destruction of the natural flood protection and erosion control features of the land including beaches, marshes, prairies, dunes, wetlands, riparian zones, and other vegetated areas.

26) **Technical Questions and Concerns About Large Structures**

The Corps should, via the SPGBTS, make large structures an issue in the EIS. Some of the questions/concerns about large structures and their associated facilities for storm surge protection and erosion control include:

1. **For Large Structures at Bolivar Roads**

a. Will this alter Galveston Bay salinity by adversely impacting marine spawning productivity (shrimp, oysters, fish species) if the width of Bolivar Roads is reduced from 10,000 feet to a lesser width (as narrow as 1,000 feet)?

b. Will this block the ingress/egress of marine organisms using flapper/guillotine gates and fill islands to provide an anchored framework?

c. Will scouring at Bolivar Roads lead to increased erosion at or near gates?

d. Could construction of large structures lead to the dredging of the Houston Ship Channel to 65-75 feet? If so would this be cost prohibitive since the Gulf of Mexico is shallow for about 20 miles out from the proposed gates at Bolivar Roads?

e. Will dredge material deposited in Galveston Bay means the loss of bay bottom and other habitats?

2. **For Large Structures Built Along All of Bolivar Peninsula, Galveston Island, and Other Areas**

a. Will this result in the loss of open beaches/dunes?

b. Will this result in the loss of federally endangered Kemp's Ridley sea turtle nesting habitat?

c. Will this result in the loss of federally endangered piping plover resting/feeding habitats or the resting/feeding habitats of other shorebirds and other birds?

d. Will this result in the loss of other land/marine organisms' feeding/nesting/shelter habitats?

e. Is there too little sand available to re-nourish beaches and is most of that sand economically prohibitive to dredge/use?

f. What will the maintenance costs, including beach re-nourishment, of large structures be?

g. Will this result in the loss of wetlands because sand will no longer be pushed across the barrier island to its backside to nourish wetland creation?

h. What will the air quality (carbon monoxide, CO2, nitrogen oxides, particulate matter, volatile organic compounds, sulfur dioxide, ozone, and air toxics) impacts be due to the construction, maintenance, repair, and operation (diesel trucks, dredge boats, etc) of large structures?

i. Will this result in the loss of all or a large portion of Houston Audubon Society's sanctuaries and other protected areas on Bolivar Peninsula or Galveston Island?

j. How much private/public property must be acquired for construction of large structures?

k. Will the beneficial effects and functions of hurricanes be reduced (flushing and deposition of sediments and nutrients) due to the use of large structures?

l. What will be the total costs, over 30 years, to finance, construct, maintain, repair, and operate large structures?

m. Will Bolivar Peninsula and other areas still be subject to large inside-the-bay storm surges after large structures are constructed?

n. Will the construction of large structures result in a false sense of security and encourage development to increase due to perceived protection provided by large

structures? Will more wetlands and other habitats be destroyed and more people and property put at risk due to this new development?

o. Will large structures encourage the ricochet of internal storm surge in Galveston Bay that occurs when a hurricane passes over?

p. Will large structures obscure or mar the natural ocean view of the wild Texas coast?

q. Will taxpayer dollars be used to benefit and subsidize private interests in a way that the public cannot afford?

r. Will Bolivar Peninsula, unless massive dredging is conducted (with its own environmental impacts) to raise portions of the Peninsula where people live, still be subject to large within the bay storm surges?

3. **For Side Dikes/Gates/ and Other Large Structures**

a. What will the erosion and habitat loss impacts be for San Luis Pass from the construction, maintenance, repair, and operation of a dike?

b. Will this interfere with the passage of water/salinity/marine organisms into and out of bays?

c. Will this interfere with currents, accretion/deposition patterns, and sand budgets?

d. Will sensitive habitats, like Christmas Bay, be harmed?

e. For those areas of the coast that are outside where large structures have been constructed, during storms and hurricanes, will there will be increased water, wave, and erosion effects? Will this result in areas without large structures subsidizing areas with large structures and paying a higher price in environmental, social, and economic costs?

27) The Corps should, via the SPGBTS, make protection of communities and beaches, sand dunes, bays, and wetlands an issue in the EIS. This includes:

1. The protection of Galveston Island and Bolivar Peninsula should be part of a coastal erosion and accretion plan (Plan). This Plan would address coastal erosion and accretion; restoration and protection of natural coastal erosion and accretion processes so that they function naturally or more naturally than currently; protection of natural ecosystems; steer development away from more vulnerable natural coastal areas and those areas that are more vulnerable to hurricane and storm damage.

2. The Plan should focus any compatible, hard structure solutions in developed areas near the seawall in the City of Galveston proper, and allow no artificial structures to

impede the natural currents, sediments, and salinities of Galveston Bay, or access to the bay of marine organisms that depend upon these features.

3. The Plan must protect shoreline features that provide natural erosion protection like beaches, sand dunes, offshore sand replenishment areas, wetlands, freshwater inflows that bring new sediment, and habitat for endangered species (like Kemp's Ridley Sea Turtles and Piping Plovers).

4. The Plan must restore natural coastal shoreline features and remove obstacles to sediment movement and transport along our coast.

5. The Plan must ensure that adjacent and nearby areas do not have their shoreline negatively impacted by the Plan.

6. The Plan must ensure that the public's Texas Open Beaches Act "rolling easement," access for public recreation, and protection of existing public lands are not diminished.

7. The Plan must assess and determine the environmental impacts and mitigation of these impacts due to any encouraged additional development in flood and storm prone areas along the coast caused by the implementation of the Plan.

8. The Plan must protect the scenic beauty of the UTGC.

9. The Plan must not encourage further development on more vulnerable natural coastal areas that are more flood and storm prone (like West Galveston Island) which puts more people; property; and sensitive areas in danger.

28) The Corps should, via the SPGBTS, make the concentration of development where residents live and work an issue in the EIS. Currently, much development has occurred or is planned for West Galveston Island and Bolivar Peninsula. Unfortunately, these areas are the most vulnerable to hurricane and storm effects. It makes sense to step back and look for a new way.

Concentrating development on East Galveston Island, where existing seawall, harbor, and city infrastructure exists makes good economic, environmental, and safety sense. Completing the sea wall around the City of Galveston; in some way protecting the Houston Ship Channel; and concentrating development in this area will do much to protect most residents of Galveston Island. Some sensitive areas, like wave buffering wetlands need protection on East Galveston Island. This can be accomplished with much less damage to Galveston's important beaches, dunes, coastal prairie, wetlands, and bays than allowing development on West Galveston Island.

29) The Corps should, via the SPGBTS, make working with existing natural features that protect the UTGC an issue in the EIS. The first line of defense against the power of hurricanes and storms are the natural features that already protect the UTGC. These natural features include beaches, dunes, wetlands, and coastal prairie ridges. Beaches

and dunes absorb tremendous amounts of wave energy during storms. They actually move shoreward as sands and sediment are pushed across coastal ridges to the back bays. This natural sand transport system feeds the maintenance of wave protecting wetlands, beaches, and dunes. Large structures destroy beaches and dunes and interrupt this natural sand transport system. Beach re-nourishment, if adequate sands can be found close by, enhances this natural sand transport system.

30) The Corps should, via the SPGBTS, make the protection of natural amenities an issue in the EIS. People visit the UTGC for the beaches, open vistas, and wildlife and sea life. People love walking the beach, watching birds, fishing, and just hanging out in the wind, sun, and water. Who doesn't like to see a porpoise cruise or a mullet jump in the Gulf of Mexico? The rare Kemp's Ridley Sea Turtle and Piping Plover nest or visit our beaches. By protecting these natural amenities the people of Galveston, Bolivar, and other coastal communities ensure their quality of life. Any solution must conserve, protect, and preserve these natural amenities or surely the UPGC will suffer over the short and long-term. Destroying beaches to protect houses means coastal communities would not be themselves.

31) The Corps should, via the SPGBTS, make the implementation of solutions in a sustainable and economic manner an issue in the EIS. Long-term protection of Galveston Island, Bolivar Peninsula, and other parts of the UTGC requires sustainable and economic solutions. Working with Nature, and not against it surely is the best way to go. For example, San Luis Pass is one of the few natural passes left that is able to function with the existing sediment supplies on the coast. Interrupting this natural system so that replenishing sand it reduced or sent elsewhere will create a further erosion problem and degrade the incredible marsh, mudflat, and shallow water areas that make this place so irresistible to beach combers, fishers, and boaters.

32) The Corps should, via the SPGBTS, make it clear that the SPGBTS is a plan for the future in the EIS. What is needed is a Coastal Protection Plan. This Plan would give everyone from Sabine Pass to Matagorda County a way to provide a vision for the future. All interested people could participate and at the end of the process all would be united going in the same direction for funding and implementation.

33) The Corps should, via the SPGBTS, ensure that the SPGBTS is the where people work together to determine how they can effectively reduce the impacts of hurricanes on humans and the environment in the EIS. The SPGBTS must make things safer and not continue to increase the risk to lives, property, and ways of life. It's our choice to make. Some of the policies that could be implemented right now by local, state, and federal governments to better protect people and the environment include:

1. All levels of government adopt the foundation policy that we all must work with Our Mother Nature, and not against her.

2. All levels of local government adopt the policy which maximally protects wetlands, which store and filter water during rain and storm events. All levels of government will

intercede in the wetlands dredge/fill permit process on behalf wetlands protection and the avoidance, minimization, and mitigation of all wetlands losses.

3. All levels of government adopt the policy of moving from an insurance and disaster relief process, in the 100-year floodplain or storm zone, to a buyout and environmental protection process.

4. All levels of government adopt the policy which requires immediate clean-up of existing hazardous waste and superfund sites or requires the owner of the waste site to build levees that will not be breached by a Category 5 Hurricane.

5. All levels of government adopt the policy which removes all governmental incentives to develop in the 100-year floodplain or storm zone.

6. All levels of government adopt the policy to support protection and expansion of existing and additional natural areas along our coasts and floodplains.

34) The Corps should, via the SPGBTS, ensure that:

1. The SPGBTS must learn from past mistakes. Years ago there was a proposal to build a ring levee all the way around the City of Galveston. Only the seawall was built. We know what happened to the City of Galveston in Hurricane Ike. A ring levee makes sense for very developed and densely populated areas like the built-up portion of the City of Galveston because storm surge does not just come from the Gulf of Mexico. Winds generate storm surges on both Galveston Bay and the Gulf of Mexico. A large structure on the Gulf of Mexico coast will not protect the City of Galveston from any storm surge that comes from Galveston Bay. We have to learn from our mistakes!

2. The SPBGTS must embrace local solutions that require local responsibility. Since the focus is on local shoreline protection for the UTGC the economic, social, and environmental responsibility to solve these problems must come from and be paid for by local sources. Our local governments and developers did not heed the call that we should not develop in vulnerable floodplains and hurricane surge areas. We must take responsibility for having encouraged development in harm's way. This misguided policy requires vast public subsidies so that people and their private property are kept somewhat safe in these vulnerable areas.

Therefore land development, where it is appropriate, must be done in a more sensible manner including set-backs, stronger building codes, reduction in public subsidized hurricane related insurance, storm surge easements, and other local solutions that make good economic, social, and environmental sense. But first we must take responsibility for the actions that got us into this mess.

3. The SPGBTS must work with Nature. The more humans oppose Nature and take a "we shall conquer" attitude the more we endanger ourselves and those we love. Much of the UTGC is not densely populated. Examples include parts of Bolivar Peninsula, the

coast between Sabine Pass and Winnie, the northern shoreline of West Galveston Bay, and Follets Island near Freeport. In these areas, it makes sense to keep people out of harm's way by protection and restoration of natural landscapes and ecosystems including beaches, sand dunes, coastal prairies, and marshes. National wildlife refuges, a national seashore, and state wildlife management areas make the most sense for these areas.

4. The SPGBTS must address the issue in the EIS that those who benefit must pay. Yes, the Houston Ship Channel is important and needs to be protected. The responsibility for that lies with channel companies who are publicly traded and privately-owned. These companies are supposed to spend **their money** to protect **their investments.** Should public money be privatized to subsidize channel companies' risk and responsibility? Channel companies, either separately or together, can afford to build new levees or strengthen existing ones. It may make more sense to construct a gate at the entrance of the Houston Ship Channel to Galveston Bay near Morgans Point. We should use the Port of Houston as the sponsor and channel companies should pay much of the cost.

35) The Corps should, via the SPGBTS, make the analysis of all types of alternatives an issue in the EIS. For instance, varied alternatives that should be analyzed include:

1. Ring levee around all of Galveston Island's East End.

2. Higher levees around Houston Ship Channel industries.

3. Levees around some job centers, like National Aeronautic and Space Administration (NASA) and University of Texas Medical Branch at Galveston (UTMBG).

4. Retreat from the coast in certain areas.

5. Buyouts on the coast and in floodplains in repetitive flood loss areas.

6. Expand existing national wildlife refuges.

7. Create a national seashore on Bolivar Peninsula and other coastal areas.

8. Increase structure elevation for new and old buildings.

9. Enforce stricter building codes and implement Federal Emergency Management Agency (FEMA) advisories.

10. Pay landowners for the use of their land as flood easements.

36) The Corps should, via the SPGBTS, emphasize natural protection and make this an issue in the EIS. Nature is a great protector against hurricane damage. Many natural areas were hard hit by Hurricane Ike, but nature is designed to take this stress. Certain

habitats are meant to take the brunt of severe storms to protect habitats inland. Nature has been able to fine tune its own protection system for a long time, and we should use what it already provides to us – dunes, beaches, and wetlands.

The beach and dunes act as a buffer between the mainland and the worst of a storm's energy. These habitats absorb the energy of storm surge by allowing waves to crash onto them and decrease the force of waves' impact on structures. The edge of dunes creates a line in front of which we should not build any manmade structures. If we build in front of, or on top of, dunes there will be nothing standing between these structures and the storm's force. A lack of dunes means that if we develop on the coastline, there will be no natural defense between us and the storm. Dunes keep smaller storm surges at bay because they function as a small natural hill between the water and the land.

What beaches and dunes are to the energy of a storm, wetlands are to storm surge. Wetlands can be immensely helpful in diverting floodwaters away from developed areas. On average an acre of wetland can hold 3 acre feet, or 1 million gallons, of water (http://www.epa.gov/owow/wetlands/pdf/Flooding.pdf).

There are currently about 120,000 acres of wetlands in Galveston Bay. Since the 1950's over 20% of natural wetland areas in Galveston have been lost (http://74.125.47.132/search?q=cache:Y4YEnlgbOvoJ:www.betterbay.org/html/media/WetlandsOfGalvestonBay.DOC+galveston+wetlands+acres&cd=5&hl=en&ct=clnk&gl=us).

37) The Corps should, via the SPGBTS, make analysis of community development an issue in the EIS. One of the best ways to protect people and property from hurricanes is to carefully select areas where development occurs. Hurricane Ike showed which areas will be hard hit by a storm and which areas remain relatively unharmed. By using Hurricane Ike as an example, the SPGBTS can analyze if development should be concentrated in areas that are more naturally protected from storms. For example, people could be encouraged to build behind the existing sea wall on the east end of Galveston Island.

Places harder hit by Hurricane Ike are good places to turn into natural areas. Properties that were destroyed or severely damaged can be bought and turned into wild areas. Preventing rebuilding in hard hit areas would decrease the risk of property damage and increase the number of natural areas that protect us from the storms.

The amount of concrete that is used in construction contributes to flood problems. When it rains some of the water is absorbed in the ground. Large concrete slabs (parking lots, roads, building foundations) do not absorb water. Water concentrates and causes flooding or water is flushed at a faster rate which floods those who live downstream.

38) The Corps should, via the SPGBTS, make analysis of the environmental impacts of large structures an issue in the EIS. The aesthetics of large structures can cause unanticipated problems. Many people, tourists and residents alike, are drawn to

Galveston for its natural beauty. Beaches and natural areas create a haven for people to get away and relax. However, large structures destroy the natural ecosystems in the area directly and indirectly.

Another problem with large structures is the time that it takes to build them and their cost. It is estimated that a large structure system could take ten to thirty years to construct. Another hurricane could hit the coast while construction is in progress. A storm could wipe out the unfinished construction. The SPGBTS should determine how to protect large structures that are being constructed from hurricanes and what this would cost.

Directly, the dune system and beaches will disappear due to the presence of large structures. Beaches will have to be re-nourished using expensive and hard to come by sand. The ecosystems around the bay area will change with the presence of large structures which could change water flow and salinity. By providing a false sense of security large structures encourage further development in more sensitive areas, like wetlands, around Galveston Bay. All of these problems combined should be analyzed in the SPGBTS. If much of the natural beauty of coastal areas is destroyed how many people will still be interested in visiting and spending their money?

39) The Corps should, via the SPGBTS, make the analysis of the false sense of security that the construction of large structures engender and make this an issue in the EIS. For example, construction of large structures along the Texas coast may create a false sense of security for people who live in the area, and could cause them to think that the seawall will prevent ALL storm damage from hurricanes.

While large structures could theoretically prevent some of the storm surge from hitting the coast, there are several other factors that contribute to hurricane damage - the two most prominent being wind and localized flooding due to rainfall. Many places that are far inland have been severely flooded as a result of downpours that occur with hurricanes. Wind can also cause significant damage. For example, much damage is caused by high winds or tornados spawned by hurricanes. If the storm surge exceeds large structures capabilities areas could end up under water. Inland floodwaters, unless released, will be trapped by large structures and exacerbate flooding behind them. In addition, the storm surge behind large structures in Galveston Bay cannot be eliminated.

This false sense of security would also contribute to a greater increase in development on the coast because of the 'protection' provided by larges structures. Should we encourage greater development of coastal areas? We must not forget that barrier islands are Nature's 'seawall' for the mainland. These islands take the worst of a storm's force, and allow less damage to occur on the mainland. When people moved to Galveston Island they built on top of the natural seawall. It makes more sense that we encourage people to move away from threatened areas in order to protect fragile ecosystems, human lives, and property from storms.

40) The Corps should, via the SPGBTS, make geo-hazard maps for the UTGC and their implementation for human safety and environmental protection an issue in the EIS.

41) The Corps should, via the SPGBTS, should prepare a set of questions in the EIS that will be answered about any alternatives that utilize large structures. Some of these questions include:

1. **Political Questions**

a. Are regulations/rules going to be implemented to keep development out of flood-prone areas?

b. What is the goal of larges structures; can that goal be accomplished; and what social, economic, financial, and environmental studies are required to determine if the goal can be accomplished?

c. What will be the process for studying the feasibility and environmental, social, and financial impacts of larges structures?

d. How will the decision be made to build or not build and who will make the decision to build/not build large structures?

e. Which entities will be involved and where will the public input occur during the study and approval/disapproval process to build/not build larges structures?

f. Will the construction of large structures lead to the dredging of the Houston Ship Channel to 60-75 feet?

g. Will there be a vote to determine whether larges structures or some other systems are implemented?

2. **Financial and Economic Questions**

a. Who is willing to finance, construct, maintain, repair, and operate a large structure system?

b. What is the full cost of large structures and any associated facilities or activities including its financing, construction, maintenance, repair, and operation?

c. Who benefits and who takes the losses financially if a large structure system is constructed?

3. **Design Questions**

a. What are alternatives to large structures?

b. How long would large structures be effective given sea level rise?

c. How long will it take to construct large structures?

d. Where will the sand come from for re-nourishment of beaches as part of a large structure proposal?

e. Where exactly will large structures be constructed and what will be the total size (footprint)?

f. If large structures are built near State Highway (SH) 3005 how will they impact the houses that are located seaward of the large structures on Galveston Island and Bolivar Peninsula?

g. Will large structures be built and used on existing roads and infrastructure or in new areas?

g. What level of protection, in hurricane category, height of storm surge, and flood or storm protection will large structures provide?

4. **Environmental Questions**

a. When will the environmental impact statement (EIS) be available?

b. What will be the environmental effect of new development caused/assisted by large structures?

c. Will more wetlands/other habitats be destroyed and more people/property put at risk due to new development?

d. Which beach organisms will be affected and how will they be affected; how will nesting sea turtles, migrating sea turtles, and the continued growth of the sea turtle population be affected; how will shorebirds be affected; and what type and how much wetlands and other wildlife habitat will be required for mitigation for large structures?

e. What monitoring of environmental affects will be conducted; who will conduct the environmental monitoring; how long will the environmental monitoring last; how much will environmental monitoring cost; and who will pay for the environmental monitoring for large structures?

f. What environmental effects will large structures have on areas that are outside of large structures but adjacent or nearby?

g. How will the natural migration of Galveston Island, as a barrier island, be affected by larges structures and will large structures prevent Galveston Island from migrating?

h. Will large structures increase subsidence of wetlands behind it by reducing sand migration and deposition?

i. Will large structures cause or enhance the storm surge ricochet that occurs within Galveston Bay during a hurricane?

j. What mitigation will be required for perpetual environmental losses from large structures?

5. **Social Questions**

a. Will large structures make it safe for people to remain on the UTGC during hurricanes?

b. What coastal mitigation alternatives are needed, other than larges structures, to protect citizens' health and welfare from hurricanes and storms?

c. Will large structures obscure/mar the natural ocean view of our wild UTGC?

d. Will taxpayer dollars be used to benefit and subsidize private interests?

e. Will large structures result in a false sense of security and encourage increased development due to the perceived protection?

f. Can people be protected from inside-the-bay storm surges?

g. What is the sustainability of the City of Galveston and Bolivar Peninsula due to their vulnerability to hurricanes and sea level rise?

42) The Corps should, via the SPGBTS, make invasive species an issue for the EIS.

43) The Corps should, via the SPGBTS, make non-point water pollution an issue in the EIS. We must ensure that large structures, roads, and associated areas (parking lots) are required to control and reduce their effluent. Roads cause much of the sediment, herbicide, and toxic pollutants that are in non-point source pollution run-off from urban areas which enter bays and estuaries.

44) The Corps should, via the SPGBTS, make the impacts of any alternatives on the Galveston Bay Estuary Program and Coastal Barrier Resources Act an issue in the EIS.

45) The Corps should, via the SPGBTS, make "public-private partnerships" an issue in the EIS. The Sierra Club is concerned that often "public-private partnerships" result in the commercialization and privatization of public resources. We must keep public resources public and managed by professionals that work for the "people" and not other interests that have other goals, like the "maximization of profit" by using public resources.

46) The Corps should, via the SPGBTS, make "political will" an issue in the EIS. The real crux of the matter is "political will." If we are not going to be serious about regulating what can and cannot happen in the coastal zone and how and how much cannot occur then all else means nothing. We will have a slow, or not so slow, decline into degradation and destruction via cumulative impacts of all actions.

We need sometimes to "just say no" to what happens in the coastal zone. Otherwise we may not have a coastal zone at all someday. We need to take responsibility now or our children will not understand why we did not. We are less in need of "innovative ideas" than "political will".

47) The Corps should, via the SPGBTS, make economic impacts that this proposal has in relation to environmental impacts an issue in the EIS. This includes the qualitative and quantitative impacts due to nature tourism and existing recreational pursuits in the area. NEPA requires such analysis as follows:

1. **Section 101(a)** of the NEPA states, "The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances ... to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

2. **Section 101(b)(5)** of the NEPA states, "achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities".

3. **Section 102(1)(B)** of the NEPA states, "... which will insure that presently un-quantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations".

4. **Section 102(1)(C)** of the NEPA states, "... major Federal actions significantly affecting the quality of the human environment". (what is economics but a part of the human environment)

5. **Section 201(2)** of the NEPA states, "current and foreseeable trends in the quality, management and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation".

6. **Section 201(3)** of the NEPA states, "the adequacy of available natural resources for fulfilling human and economic requirements of the National in the light of expected population pressures".

7. **Section 202** of the NEPA states, "to be conscious of and responsive to the scientific, economic, social, esthetic, and cultural needs and interests of the Nation".

8. **Section 204(4)** of the NEPA states, "to develop and recommend to the president national policies to foster and promote the improvement of environmental quality to meet the conservation, social, economic, health, and other requirements and goals of the Nation".

9. **Section 1501.2(b)** of CEQ NEPA regulations states, "Identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses."

10. **Section 1508.8(b)** of CEQ NEPA regulations states, "... Effects includes ecological ... aesthetic, historic, cultural, economic, social or health, whether direct, indirect, or cumulative".

11. **Section 1508.14** of CEQ NEPA regulations states, "... This means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment".

Without a full accounting of the economic and environmental costs the Corps will not be integrating all costs of storm damage reduction, ecosystem restoration, and flood risk management and providing that information to the public for its review and comment about all costs and benefits of the proposal.

48) The Corps should, via the SPGBTS, use public interest review factors including flood hazards, land use, fish and wildlife values, wetlands, aesthetics, economics, conservation, shore erosion and accretion, safety, water quality, and general environmental concerns in preparing the EIS.

49) The Corps should, via the SPGBTS, make long-term protection of mitigation areas and whether created habitat will be appropriately done an issue for the EIS. Some of the questions that must be answered include:

1. What agency will be responsible for monitoring and enforcement of mitigation areas?

2. What resources does this agency have to conduct unannounced inspections? What is that agency's track record?

3. How often will that agency monitor the mitigation for this proposal?

4. What criteria will be used to determine if the mitigation is functioning as required by the permit?

5. How will this be determined and or measured?

50) The Corps should, via the SPGBTS, examine all cumulative impacts and make this an issue in the EIS. The cumulative impacts of all past, present, and future foreseeable actions must be identified and their impacts must be assessed, analyzed, and evaluated. The cumulative impacts analysis in the EIS must comply with the Council on Environmental Quality (CEQ) NEPA implementing regulations, 40 CFR 1502.16, 1508.7, 1508.8, 1508.25, and 1508.27.

The CEQ has extensively described the minimum requirements for analysis and mitigation of cumulative impacts on environmental quality. At minimum, an adequate cumulative effects analysis must:

1. Identify the past, present, and reasonably foreseeable actions of the Corps and other parties affecting each particular aspect of the affected environment

2. Must provide quantitative information regarding past changes in habitat quality and quantity, water quality, resource values, and other aspects of the affected environment that are likely to be altered by Corps actions

3. Must estimate incremental changes in these conditions that will result from Corps actions in combination with actions of other parties, including synergistic effects

4. Must identify any critical thresholds of environmental concern that may be exceeded by Corps actions in combination with actions of other parties

5. Must identify specific mitigation measures that will be implemented to reduce or eliminate such effects

The Corps must use the CEQ's January 1997 document, "Considering Cumulative Effects Under the National Environmental Policy Act" for determining cumulative impacts and carrying out its analysis, assessment, and evaluation. It is clear that the Corps has an affirmative duty, a statutory duty, and a regulatory duty to carry out cumulative impacts assessment.

Some of the especially important quotes from the CEQ document include:

a. On page v, "Only by reevaluating and modifying alternatives in light of the projected cumulative effects can adverse consequences be effectively avoided or minimized. Considering cumulative effects in also essential to developing appropriate mitigation and monitoring its effectiveness."

b. On page v, "By evaluating resource impact zones and the life cycle of effects rather than projects, the analyst can properly bound the cumulative effects analysis. Scoping can also facilitate the interagency cooperation needed to identify agency plans and other actions whose effects might overlap those of the proposed action."

c. On page vi, "When the analyst describes the affected environment, he or she is setting the environmental baseline and thresholds of environmental change that are important for analyzing cumulative effects. Recently developed indicators of ecological integrity. (e.g., index of biotic integrity for fish) and landscape conditions (e.g., fragmentation of habitat patches) can be used as benchmarks of accumulated change over time ... GIS technologies provide improved means to analyze historical change in indicators of the condition of resources, ecosystems, and human communities, as well as the relevant stress factors.

d. On page vi, "Most often, the historical context surrounding the resource is critical to developing these baselines and thresholds and to supporting both imminent and future decision-making."

e. On page ... the consequences of human activities will vary from those that were predicted and mitigated ... therefore, monitoring the accuracy of predictions and the success of mitigation measures is critical.

f. On page vi, "Special methods are also available to address the unique aspects of cumulative effects, including carrying capacity analysis, ecosystem analysis, economic impacts analysis, and social impact analysis.

g. On page vii, Table E-1, "CEA Principles ... Cumulative effects analysis ...Address additive, countervailing, and synergistic effects ... Look beyond the life of the action.

h. On page 1, "The range of actions that must be considered includes not only the projects proposal but all connected and similar actions that could contribute to cumulative effects.

i. On page 3, "The purpose of cumulative effects analysis, therefore is to ensure that federal decisions consider the full range of consequences of actions ... If cumulative effects become apparent as agency programs are being planned or as larger strategies and policies are developed then potential cumulative effects should be analyzed at that times.

j. On page 3, Cumulative effects analysis necessarily involves assumptions and uncertainties, but useful information can be put on the decision-making table now ... Important research and monitoring programs can be identified that will improve analyses in the future, but their absence should not be used as a reason for not analyzing cumulative effects to the extent possible now ... adaptive management provisions for flexible project implementation can be incorporated into the selected alternative."

k. On page 4, "The Federal Highway Administration and state transportation agencies frequently make decisions on highway projects that may not have significant direct environmental effects, but that may induce indirect and cumulative effects by permitting other development activities that have significant effects on air and water resources at a regional or national scale, The highway and other development activities can reasonably be foreseen as "connected actions.

l. On page 7, "Increasingly, decision makers are recognizing the importance of looking at their projects in the context of other development in the community or region (i.e., of analyzing the cumulative effects) ... Without a definitive threshold, the NEPA practitioner should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant ... Cumulative effects results from spatial (geographic) and temporal (time) crowding of environmental perturbations. The effects of human activities will accumulate when a second perturbation occurs at a site before the ecosystem can fully rebound from the effect of the first perturbation."

m. On page 8, Table 1-2, lists 8 principles of cumulative effects analysis. See copy enclosed.

n. On page 19, "The first step in identifying future actions is to investigate the plans of the proponent agency and other agencies in the area. Commonly, analysts only include those plans for actions which are funded or for which other NEPA analysis is being prepared. This approach does not meet the letter or intent of CEQ's regulations ... The analyst should develop guidelines as to what constitutes "reasonably foreseeable future actions" based on planning process within each agency ... In many cases, local government planning agencies can provide useful information on the likely future development of the region, such as master plans. Local zoning requirements, water supply plans, economic development plans, and various permitting records will help in identifying reasonably foreseeable private actions ... These plans can be considered in the analysis, but it is important to indicate in the NEPA analysis whether these plans were presented by the private party responsible for originating the action. Whenever speculative projections of future development are used, the analyst should provide an explicit description of the assumptions involved ... NEPA litigation ... has made it clear that "reasonable forecasting" is implicit in NEPA and that it is the responsibility of federal agencies to predict the environmental effects of proposed actions before they are fully known.

o. On page 23, "Characterizing the affected environment in a NEPA analysis that addresses cumulative effects requires special attention to defining baseline conditions. These baseline conditions provide the context for evaluating environmental consequences and should include historical cumulative effects to the extent feasible.

p. On page 29, "Lastly, trends analysis of change in the extent and magnitude of stresses in critical for projecting the future cumulative effects.

q. On page 29, "Government regulations and administrative standards ... often influence developmental activity and the resultant cumulative stress on resources, ecosystems, and human communities.

r. On page 31, "Cumulative effects occur through the accumulation of effects over varying periods of time. For this reason, an understanding of the historical context of effects is critical to assessing the direct, indirect, and cumulative effects of proposed actions. Trends data can be used ... to establish the baseline for the affected environment more accurately (i.e., by incorporating variation over time) ... to evaluate the significance of effects relative to historical degradation (i.e., by helping to estimate how close the resource is to a threshold of degradation) ... to predict the effects of the actions (i.e., by using the model of cause and effects established by past actions)."

s. On pages 38-40, "Using information gathered to describe the affected environment, the factors that affect resources (i.e., the causes in the cause-and-effect relationships) can be identified and a conceptual model of cause and effect developed ... The cause-and-effect model can aid in the identification of past, present, and future actions that should be considered in the analysis ... The cause-and effect relationships for each resource are used to determine the magnitude of the cumulative effect resulting from all actions included in the analysis ... one of the most useful approaches for determining the likely response of the resource ... to environmental change is to evaluate the historical effects of activities similar to those under consideration.

t. On page 41, "The analyst's primary goal is to determine the magnitude and significance of the environmental consequences of the proposed action in the context of the cumulative effects of other past, present, and future actions ... The critical element in this conceptual model is defining an appropriate baseline or threshold condition of the resource.

u. On page 43, "Situations can arise where an incremental effect that exceeds the threshold of concern for cumulative effects results, not from the proposed action, but the reasonably foreseeable but still uncertain future actions.

v. On page 45, "The significance of effects should be determined based on context and intensity ... Intensity refers to the severity of effect ... As discussed above, the magnitude of an effect reflects relative size or amount of an effect. Geographic extent considers how widespread the effect might be. Duration and frequency refers to whether the effect is a one-time event, intermittent, or chronic.

w. On page 45, "Determinations of significance ... are the focus of analysis because they lead to additional (more costly) analysis or to inclusion of additional mitigation (or a detailed justification for not implementing mitigation) ... the project proponent should avoid, minimize, or mitigate adverse effects by modifying alternatives ... in most cases, however, avoidance or minimization are more effective than remediating unwanted effects."

y. On page 51, "different resource effects that cumulatively affect interconnected systems must be addressed in combination."

51) The Corps should, via the SPGBTS, make the inclusion of important information an issue in the EIS. If this is not done then important information will be hidden from the public and decision-makers about the magnitude and significance of storm damage reduction, ecosystem restoration, and flood risk management alternatives. The need for this information in an EIS is documented by the following:

1. **CEQ NEPA Regulation, 1500.1(b),** "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."

2. **CEQ NEPA Regulation, 1500.1(c),** "The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences."

3. **CEQ NEPA Regulation, 1500.2(b),** "Implement procedures to make the NEPA process more useful to decision-makers and the public."

4. **CEQ NEPA Regulation, 1500.2(d),** "Encourage and facilitate public involvement in decisions which affect the quality of the human environment."

5. **CEQ NEPA Regulation, 1500.4(b),** "Preparing analytic rather than encyclopedic environmental impact statements."

6. **CEQ NEPA Regulation, 1500.4(f),** "Emphasizing the portions of the EIS that are useful to decision-makers and the public."

7. **CEQ NEPA Regulation, 1501.2(b),** "Identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses."

8. **CEQ NEPA Regulation, 1502.2,** "EISs shall be analytic rather than encyclopedic."

9. **CEQ NEPA Regulation, 1502.4(a),** "Agencies shall make sure the proposal which is the subject of an EIS is properly defined."

10. **CEQ NEPA Regulation 1502.16,** "This section forms the scientific and analytic basis for the comparisons ... environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and irreversible or irretrievable commitments of resources."

11. **CEQ NEPA Regulation, 1502.21,** "No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment."

12. **CEQ NEPA Regulation, 1502.24,** "Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in EISs. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement."

13. **CEQ NEPA Regulation, 1506.6(a),** "Agencies shall make diligent efforts to involve the public in preparing and implementing their NEPA procedures."

14. **CEQ NEPA Regulation, 1508.3,** "Affecting means will or may have an effect on."

15. **CEQ NEPA Regulation, 1508.14,** "Human Environment shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment ... When an EIS is prepared and economic or social and natural or physical environmental effects are interrelated then the EIS will discuss all of these effects on the human environment."

16. **CEQ NEPA Regulation, 1508.18,** "Major Federal action includes actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly ... Actions include new and continuing activities, including projects ... approval of specific projects, such as construction or management activities located in a defined geographic area."

17. **CEQ NEPA Regulation, 1508.27,** "Significantly as used in NEPA requires considerations of both context and intensity ... Context means that the significance of an action must be analyzed in several contexts ... For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as whole ... Intensity refers to the severity of impact ... impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believe that on balance the effect will be beneficial ... Unique characteristics of the geographic area ... The degree to which the effects on the quality of the human environment are likely to be highly controversial ... The degree to which the possible effects ... are highly uncertain or involve unique or unknown risks ... Whether the action is related to other actions with individually insignificant but cumulatively significant impacts ... Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment."

52) The Corps should, via the SPGBTS, ensure that dictionary usage of words or phrases do not suffice to provide the public with a clear picture of what the intensity, significance, and context of environmental impacts are in the EIS. An all qualitative assessment, analysis, and evaluation of environmental impacts is not sufficient to deal

with the clearly articulated CEQ requirements in **Section 1502.14,** that the EIS "should present the environmental impacts of the proposal and the alternatives in comparative form, thus **sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public".**

1. Quantitative assessment, analysis, and evaluation are necessary to ensure that alternatives and environmental impacts are clearly defined and shown in the EIS. As stated in the CEQ NEPA implementing regulations, **Section 1500.1(b),** Purpose, "NEPA procedures must insure that environmental information is available to public officials and citizens ... The information must be of high quality. Accurate scientific analysis ... are essential to implementing NEPA".

2. As stated in **Section 1501.2(b),** "Identify environmental effects and values in adequate detail so they can be compared to economic and technical analyses."

3. As stated in **Section 1502.8,** "which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts."

4. As stated in **Section 1502.18(b),** about the Appendix, "Normally consist of material which substantiates any analysis fundamental to the impact statement".

5. As stated in **Section 1502.24,** "Agencies shall insure the professional integrity, of the discussions and analyses ... They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement."

The analysis that the Corps must conduct for this EIS is much more than **"best professional judgment". "Best professional judgment"** is where a group of people, using their experience, decide what is important. This level of assessment, analyses, and evaluation for environmental impacts and alternatives is an insufficient foundation upon which to base an EIS.

The Corps should, via the SPGBTS, define what phrases and words mean so that the public can review, comment on, and understand what the Corps refers to in the EIS. Decision-makers must know this information.

The qualitative description of phrases used to describe environmental impacts or the protectiveness of an alternative does not provide the public with the degree of comparison required by the CEQ's mandatory NEPA implementing regulations. These regulations state, in **Section 1502.14, Alternatives including the proposed action,** that, "This section is the heart of the EIS ... it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public ... Devote substantial treatment to each alternative in detail ... so that reviewers may evaluate their comparative merits."

The CEQ also states, in **Section 1502.16 and (d), Environmental consequences,** that, "This section forms the scientific and analytic basis for the comparisons ... The environmental effects of alternatives including the proposed action the comparisons under **Section 1502.14** will be based on this discussion."

It is key that the Corps clearly compare and make apparent the distinctiveness of each alternative and its impacts or protectiveness. This is not accomplished when phrases are used qualitatively instead of quantitatively with more detailed and clear descriptions of qualitative information. **The Sierra Club requests that the Corps clarify and detail clearly the comparative differences between each alternative and define clearly what the words or phrases used mean.**

The Sierra Club appreciates this opportunity to comment. Thank you.

Sincerely,

Brandt Mannchen
Conservation Committee
Houston Regional Group of the Sierra Club
5431 Carew
Houston, Texas 77096
713-664-5962
brandtshnfbt@juno.com

From: Ray Taft [mailto:raybacliff@verizon.net]
Sent: Thursday, March 01, 2012 5:02 PM
To: SabinePassToGalvestonBay
Subject: Comment concerning USACE Galveston NEPA and flood control meetings.

Hello,

I think the starting point for storm damage reduction, flood risk management and ecosystem restoration should be with maintaining the current storm drain systems.

As you all probably know, the storm drain inlets, pipes and ditches all need periodic cleaning. Without cleaning, debris and trash can choke up a drain system resulting in reduced efficiency.

According to the EPA, pollution prevention depends upon good housekeeping. Pollutants, in the form of undesirable debris and trash, in a drain system can be washed into the waterways if not removed.

This all adds up to the need to clean storm drain systems on a regular basis. The municipal organizations responsible for maintaining our current systems should be performing storm drain system cleaning on a periodic schedule.

Drain systems may also need periodical engineering reviews. Sediment build-up or erosion in ditches can cause a system to fail to operate as originally designed. Increased drain inputs from added development can overload a drain system if the system was not designed for expansion.

Let’s ensure the local municipalities can demonstrate they are maintaining the current systems properly before spending taxpayer money on new systems and new projects.

I urge the group to first institute a program that will educate local municipalities on the need to maintain current storm drain systems and if needed to provide training on how to maintain storm drain systems according to accepted practices.

Regards,
Ray Taft
Bacliff, TX

From: Winston Denton [mailto:Winston.Denton@tpwd.state.tx.us]
Sent: Wednesday, March 14, 2012 5:01 PM
To: SabinePassToGalvestonBay
Cc: Michael Rezsutek; Cherie OBrien
Subject: Sabine Pass to Galveston Bay Risk Reduction

Comments provided by Texas Parks and Wildlife Department Upper Coast Region for the Wildlife Division J. D. Murphree Wildlife Management Area (WMA) and the Coastal Fisheries Division Ecosystem Resources Program. Contact information regarding specific projects are provided below.

Please let me know if you have any questions

Sincerely,

Winston Denton
Ecosystem Resources Program
Coastal Fisheries Division
Texas Parks and Wildlife Department
1502 FM 517 E
Dickinson, TX 77539
281-534-0138
winston.denton@tpwd.state.tx.us

1. Inverted Siphons Under the Gulf Intracoastal Waterway and the Keith Lake Fish Pass Cross Section Reduction

Construct two sets of inverted siphons under the GIWW to move excess freshwater from the marshes north of the GIWW to salt-stressed marshes south of the GIWW. This portion of the project will: 1) Reduce the salinity within the marshes around the discharge points lessening the level of sulfide stress in the plants. 2) Create a head of freshwater against the salt water entering through the Keith Lake Fish Pass. 3) Re-establish salinities gradients from Willow and Barnett Lakes on McFaddin National Wildlife Refuge (NWR) to the Keith Lake Fish Pass.

Reduce the cross section of Keith Lake Fish Pass from its current size to the original cross section. This project has been studied by USACOE under a CAP 1135.

Project Contacts:

Richard LeBlanc, Jr., General Manager of Drainage District 6 at 409-842-1818. (Siphon Project)

Mike Rezsutek at 409-736-2551, michael.rezsutek@tpwd.state.tx.us <mailto:michael.rezsutek@tpwd.state.tx.us> (Siphon and Keith Lake Fish Pass Projects)

The feasibility of the siphons is supported by a Texas Water Development Board study completed in 2009. The complete citation is: Dharhas Pothina and Carla G. Guthrie, Ph.D. 2009. Evaluating inverted siphons as a means of mitigating

salinity intrusion in the Keith Lake/Salt Bayou System, Jefferson County, Texas. A report submitted to US Environmental Protection Agency Gulf of Mexico Program. Grant Number MX-96401704."

2. Beneficial Use of Dredged Material to Restore Marshes in the Keith Lake Watershed

Expand the beneficial use of dredged maintenance material from Golden Pass LNG and other dredging projects to restore elevations and marsh communities on the J. D. Murphree WMA Salt Bayou Unit, the McFaddin NWR and private property within the Keith Lake watershed. Coordination with multiple landowners and the USACOE would result in a larger and cost effective project. The restoration of a healthy marsh community will reduce the impacts of storm surges.

Project Contact:

Mike Rezsutek at 409-736-2551, michael.rezsutek@tpwd.state.tx.us <mailto:michael.rezsutek@tpwd.state.tx.us>

3. Stabilization and Erosion Protection of the Banks and Adjacent Habitats Along the GIWW

Continue the placement of rock breakwaters in front of the banks along the GIWW. This technique reduces erosion of the bank, provides protection to the adjacent freshwater and intermediate marshes, and traps sediment behind the breakwaters creating a narrow fringe of salt marsh habitat. This is a well established method of preventing erosion that is practiced in Louisiana and Texas.

4. Infrastructure Development for the Continued Use of Dredge Material in the Nelda Stark Unit, Lower Neches WMA

Complete the necessary magnetometer and bathymetric surveys and design and construct a system of containment levees/terraces for future placement of dredge material. The completion of this phase would allow for Restoration of Nelda Stark Unit as material becomes available from local industries along the Sabine Neches Waterway. The area would be suitable for the beneficial use of maintenance and new work dredged material.

Project Contact:

Mike Rezsutek at 409-736-2551, michael.rezsutek@tpwd.state.tx.us <mailto:michael.rezsutek@tpwd.state.tx.us>

5. Restoration of the Beach Ridge from McFaddin NWR to High Island

Restore the beach ridge from McFaddin NWR to High Island. The primary intent of the project is to prevent frequent infusions of salt water from the Gulf of Mexico into the freshwater and intermediate marshes between the existing beach ridge remnants and the GIWW.

Project Contacts:

Patrick Walther and Tim Cooper at the Texas Chenier Plain Refuge Complex

6. Re-evaluation of the Current Use of Maintenance Dredged Material Under existing EA's and EIS's

Regionally (Sabine Pass to San Luis Pass) evaluate and amend/improve existing EA's and EIS's associated with dredging projects, mainly projects whose maintenance is under the authority of the Corps' Operations [and Maintenance] Division. The emphasis of the evaluation should be to revise the projects' Placement Areas (PA's) incorporating newer ideas, science, and techniques such as beneficial use of dredge material to mitigate, and protect against shoreline erosion (beach and bay), loss of wetlands and other natural resources (undeveloped costal prairie, bird rookery islands), and destruction to private and commercial property and to restore shorelines (beach and bay), wetlands, and other natural resources (bird rookery island).

Project Contact:

Cherie O'Brien at 281-534-0132, cherie.obrien@tpwd.state.tx.us <mailto:cherie.obrien@tpwd.state.tx.us>

7. Projects Promoting Sand Migration at Shipping Channels

Design and evaluate alternative techniques that would allow/promote the migration of sand to by-pass ship channels. The project should include the construction of a pilot project.

Project Contact:

Cherie O'Brien at 281-534-0132, cherie.obrien@tpwd.state.tx.us <mailto:cherie.obrien@tpwd.state.tx.us>

PART II

COMMENTS
ON
DRAFT INTEGRATED FEASIBILITY REPORT/
ENVIRONMENTAL IMPACT STATEMENT

Placeholder for Comments Received on DIFR-EIS

Sabine Pass to Galveston Bay, Texas
Coastal Storm Risk Reduction and Ecosystem Restoration
Draft Integrated Feasibility Report and Environmental Impact Study

DRAFT APPENDIX G

AGENCY AND TRIBAL COORDINATION

September 2015

Tribal Cooperating Agency Request Letters

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

Bryant Celestine
Historic Preservation Officer
Alabama-Coushatta Tribe of Texas
571 State Park Road 56
Livingston, TX 77351

Dear Mr. Celestine:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your tribe to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Study. The integrated feasibility report and EIS (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria counties on the upper Texas Gulf coast. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs, conservation of natural landscapes, and flood-proofing will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system (Galveston, Harris and Chambers Counties), as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

If your tribe has any concerns regarding potential project impacts to Native American archeological sites or areas of religious or cultural interest from the potential project described above, we request that you contact us so that further consultation can be initiated. We would also like to coordinate with you our schedule for study completion so that all reviews and approvals will, to the maximum extent practicable, be conducted concurrently. The following review periods for the IFR-EIS have been established in accordance with the current project schedule:

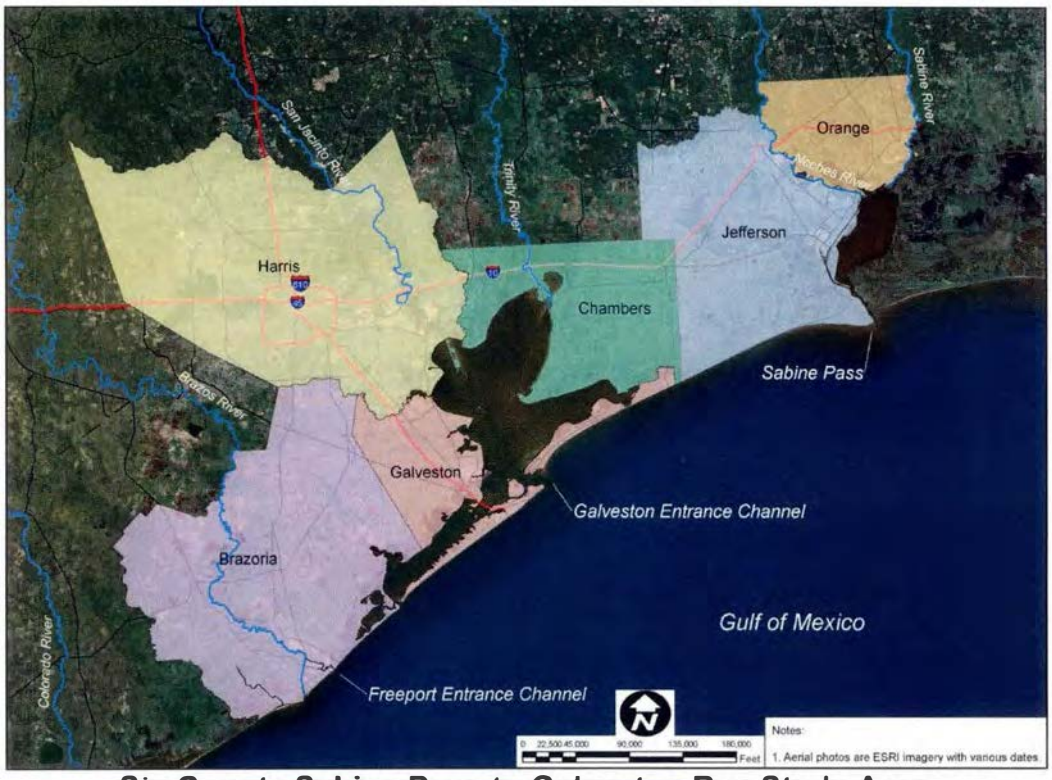
- Review of Draft IFR-EIS --45-day review period (August 29 through October 12, 2015)
- State and Agency Review of Final IFR-EIS – 30-day review (July 15 through August 14, 2016)

We appreciate this opportunity to consult regarding any concerns your tribe may have with potential project impacts or review periods. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

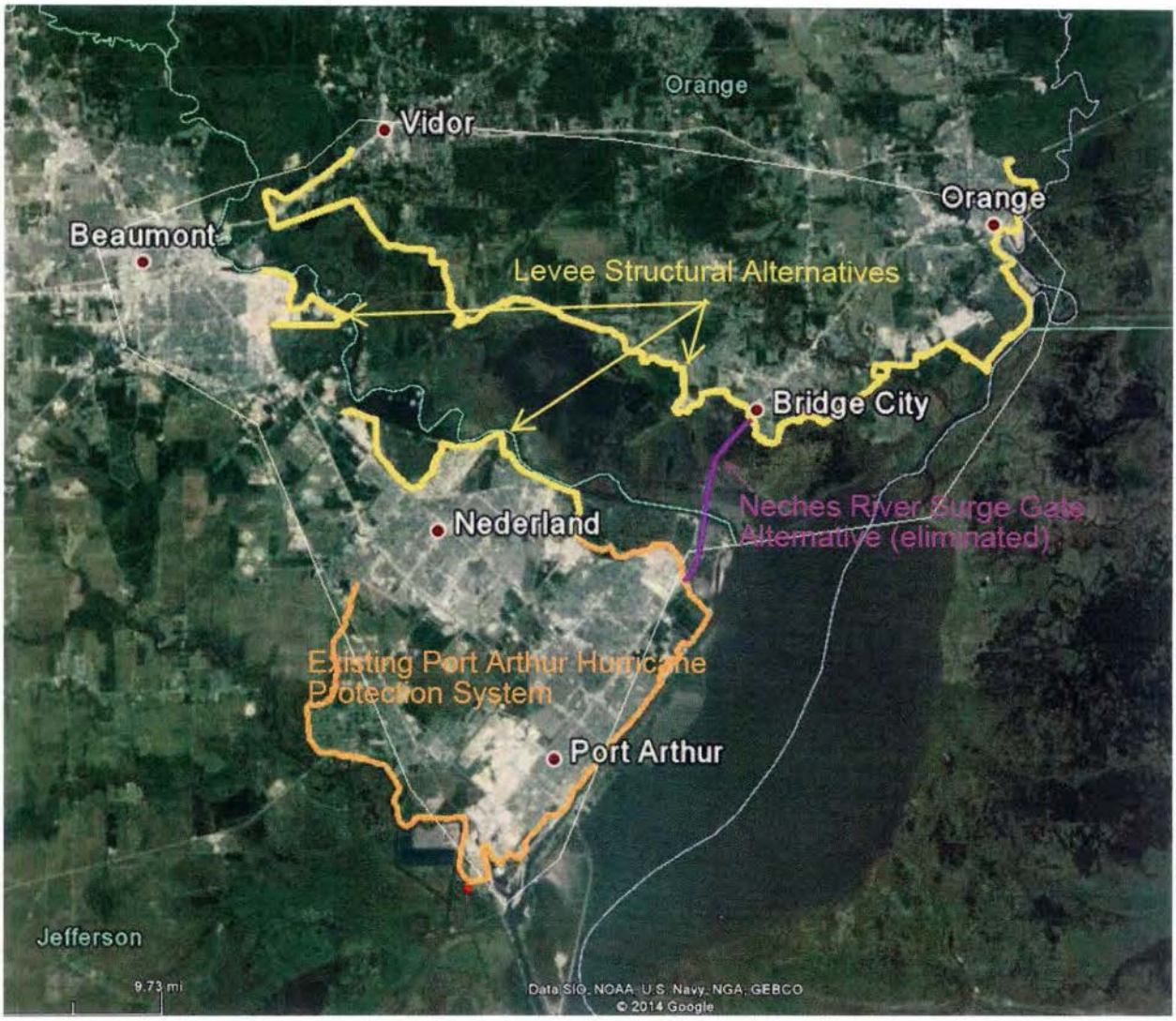
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Mr. Jimmy Arterberry
Tribal Historic Preservation Officer
Comanche Nation of Oklahoma
P.O. Box 908
Lawton, OK 73502

Dear Mr. Arterberry:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your tribe to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Study. The integrated feasibility report and EIS (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria counties on the upper Texas Gulf coast. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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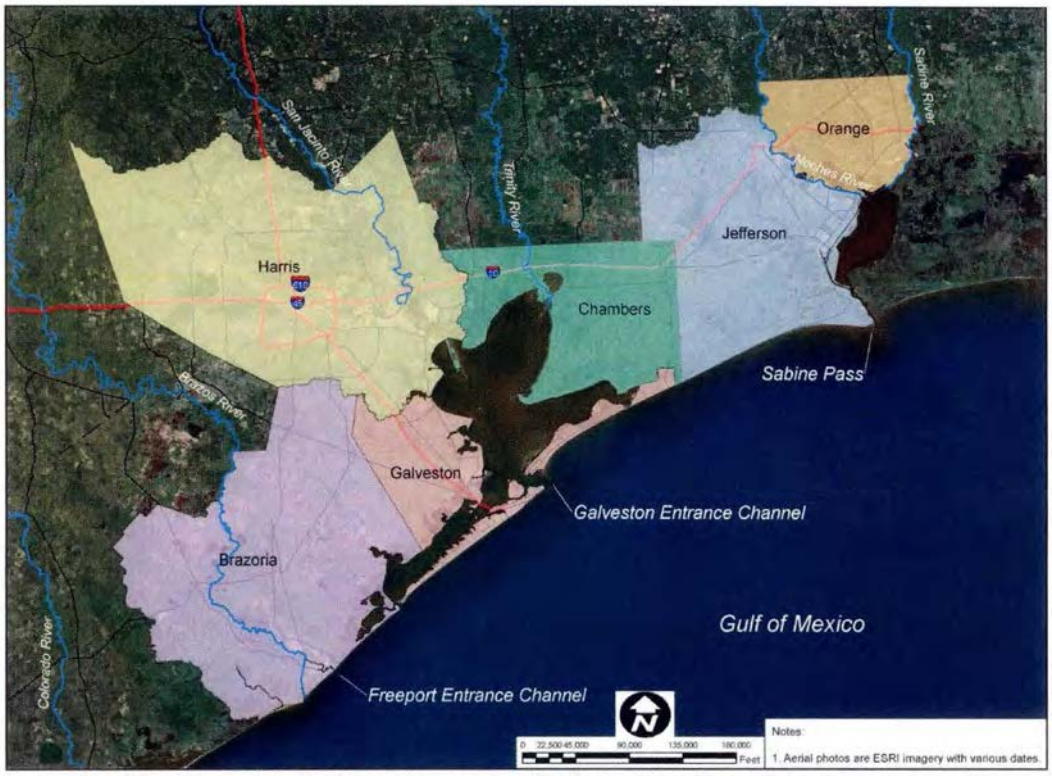
We appreciate this opportunity to consult regarding any concerns your tribe may have with potential project impacts or review periods. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

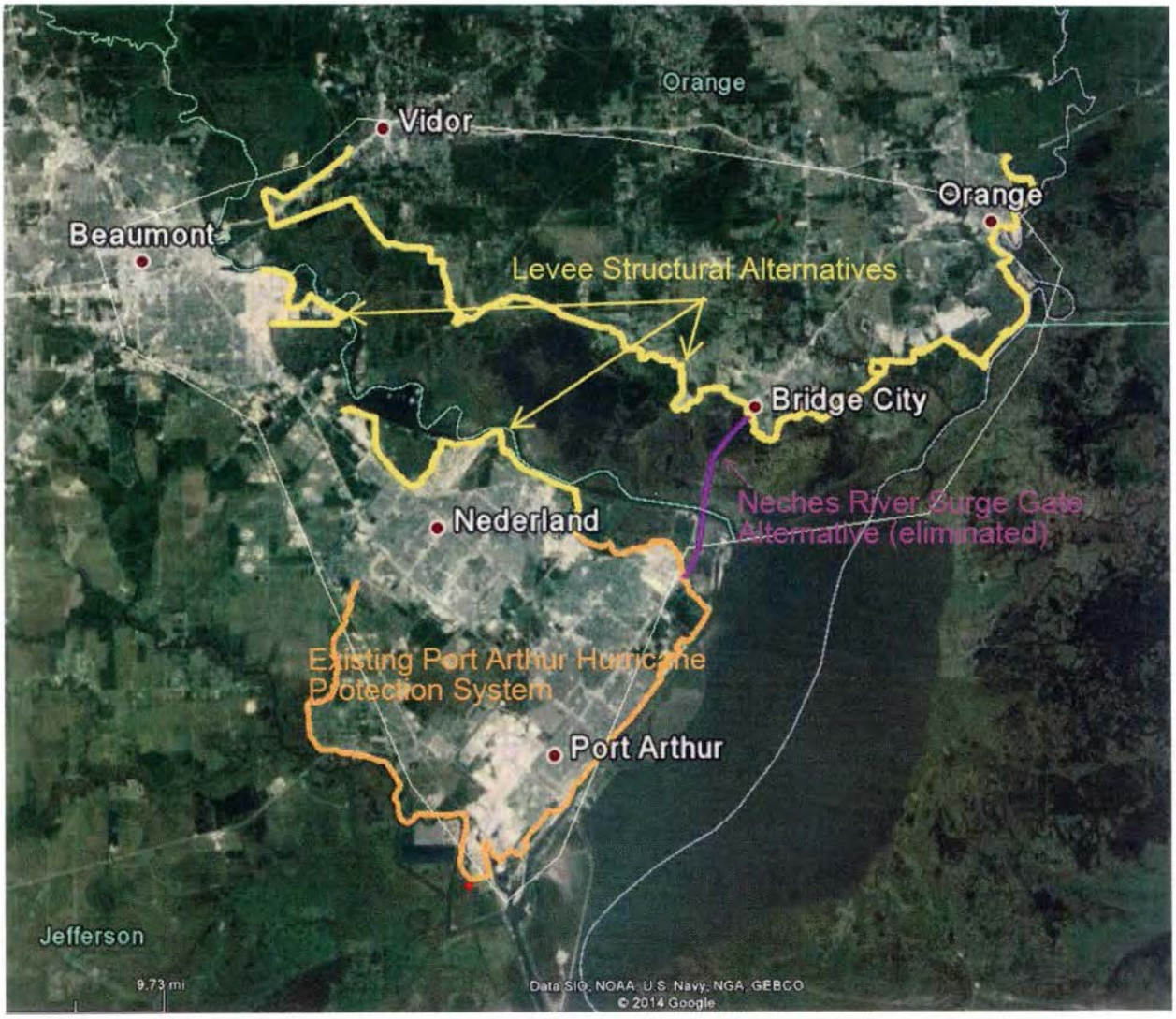
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Dr. Linda Langley
Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana
Administrative Building
1940 C.C. Bel Road
Elton, Louisiana 70532

Dear Dr. Langley:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your tribe to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Study. The integrated feasibility report and EIS (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria counties on the upper Texas Gulf coast. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs, conservation of natural landscapes, and flood-proofing will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system (Galveston, Harris and Chambers Counties), as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

If your tribe has any concerns regarding potential project impacts to Native American archeological sites or areas of religious or cultural interest from the potential project described above, we request that you contact us so that further consultation can be initiated. We would also like to coordinate with you our schedule for study completion so that all reviews and approvals will, to the maximum extent practicable, be conducted concurrently. The following review periods for the IFR-EIS have been established in accordance with the current project schedule:

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- State and Agency Review of Final IFR-EIS – 30-day review (July 15 through August 14, 2016)

We appreciate this opportunity to consult regarding any concerns your tribe may have with potential project impacts or review periods. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

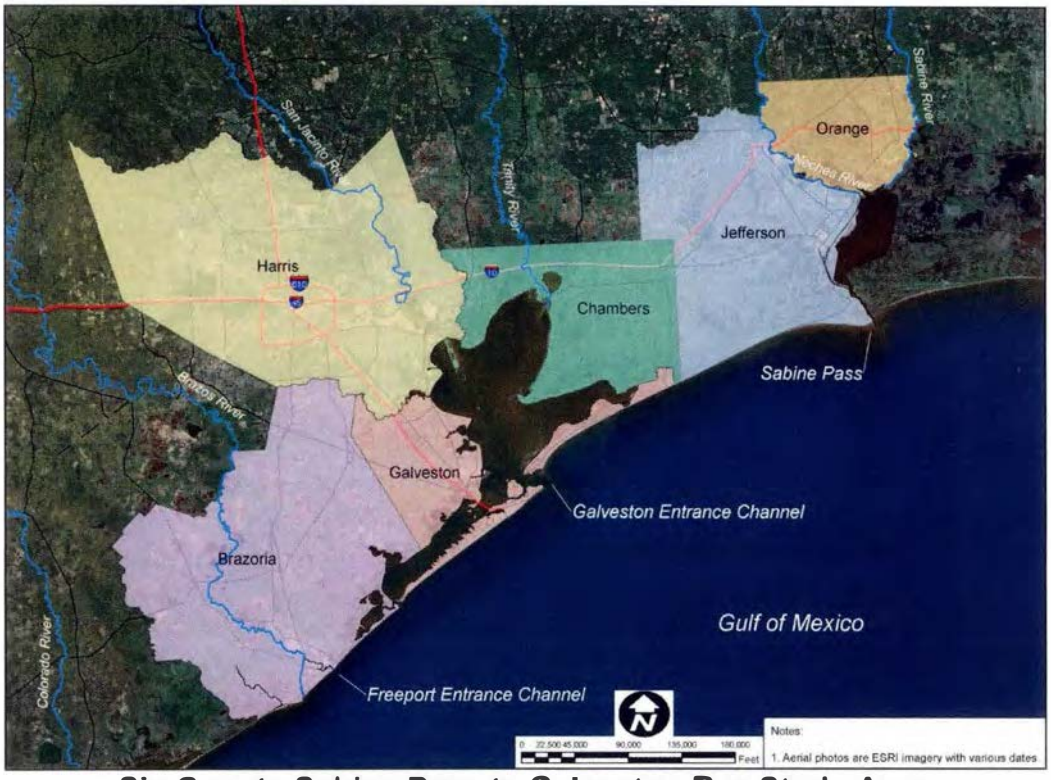
Sincerely,

Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures

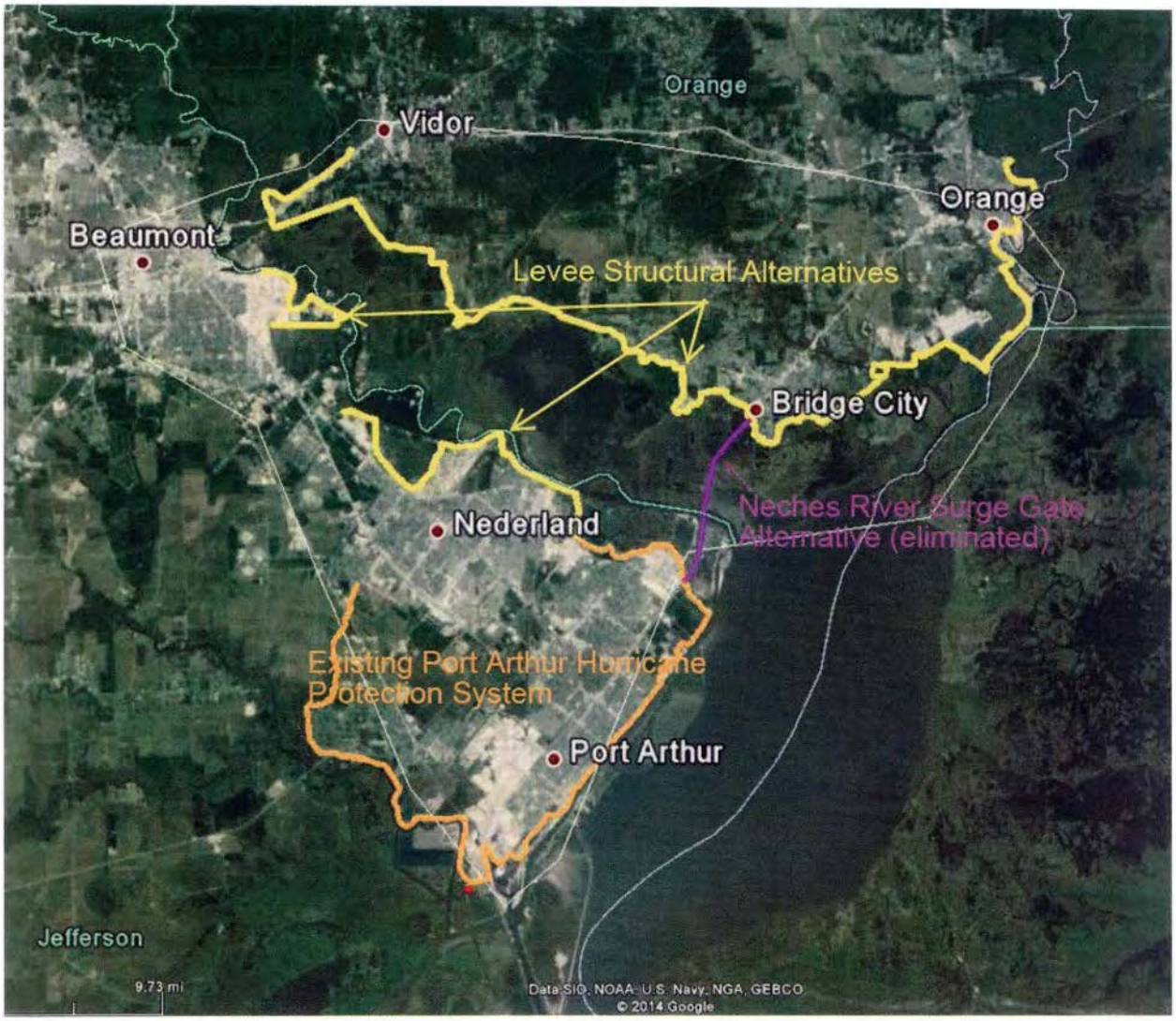
CF:

Mr. Michael Tarpley
Historic Preservation Office
Coushatta Tribe of Louisiana
Administrative Building
1940 C.C. Bel Road
Elton, Louisiana 70532



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO ATTENTION OF

November 19, 2014

NEPA/Cultural Resources Section

Ms. Amie Tah-Bone
Historic Preservation Office
Kiowa Indian Tribe of Oklahoma
P.O. Box 369
Carnegie, OK 73015

Dear Ms. Tah-Bone:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your tribe, to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Study. The integrated feasibility report and EIS (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria counties on the upper Texas Gulf coast. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs, conservation of natural landscapes, and flood-proofing will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system (Galveston, Harris and Chambers Counties), as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

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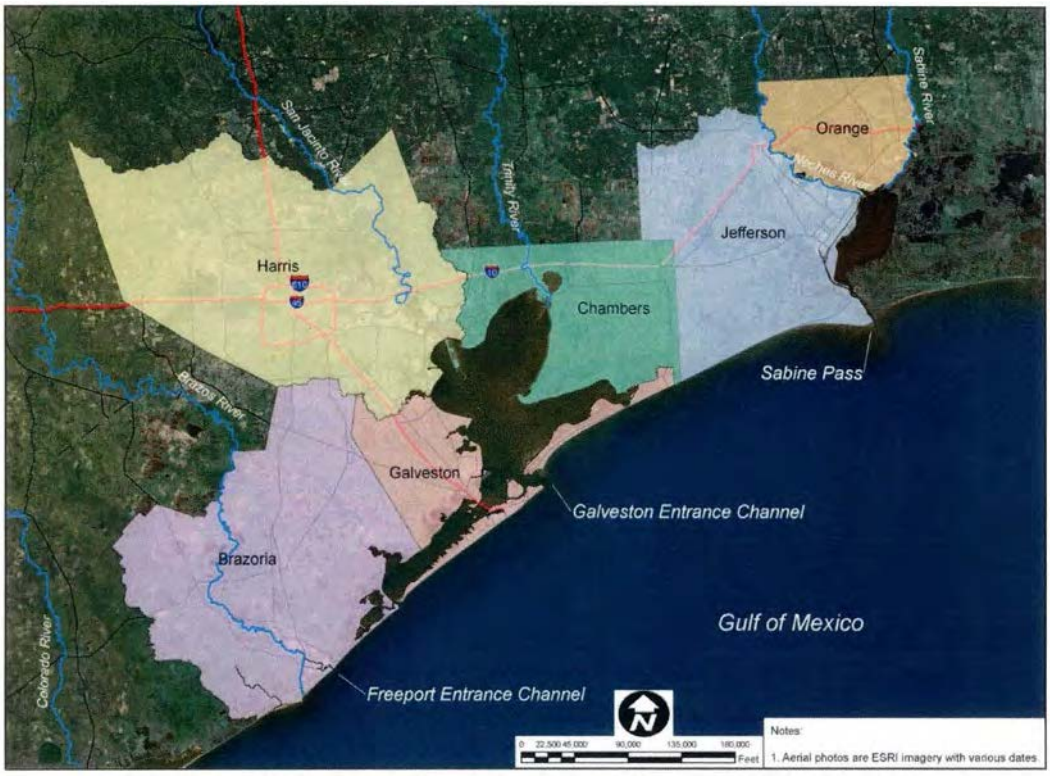
We appreciate this opportunity to consult regarding any concerns your tribe may have with potential project impacts or review periods. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

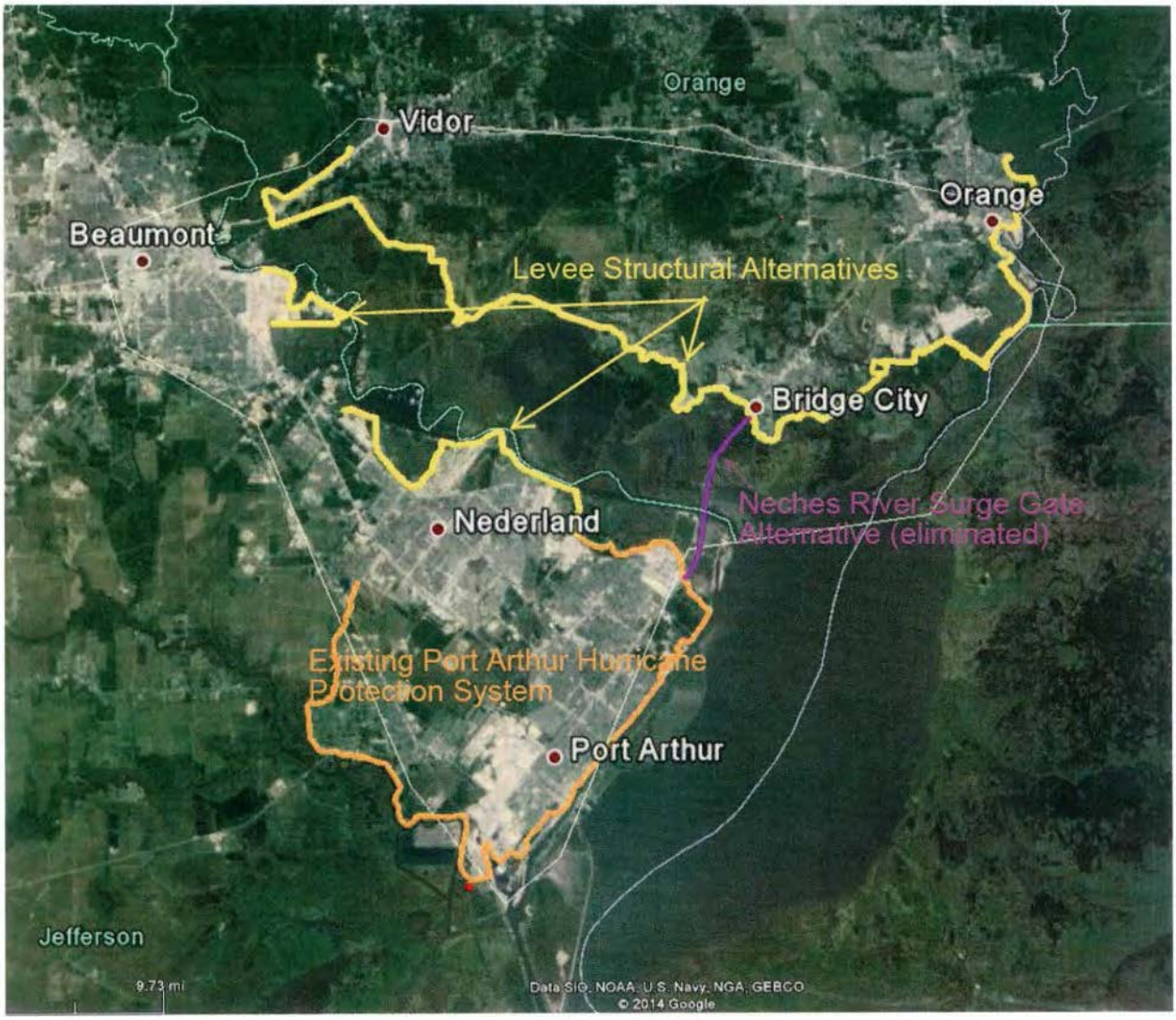
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Holly Houghton
Tribal Historic Preservation Officer
Mescalero Apache Tribe
P.O. Box 227
Mescalero, NM 88340

Dear Ms. Houghton:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your tribe to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Study. The integrated feasibility report and EIS (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria counties on the upper Texas Gulf coast. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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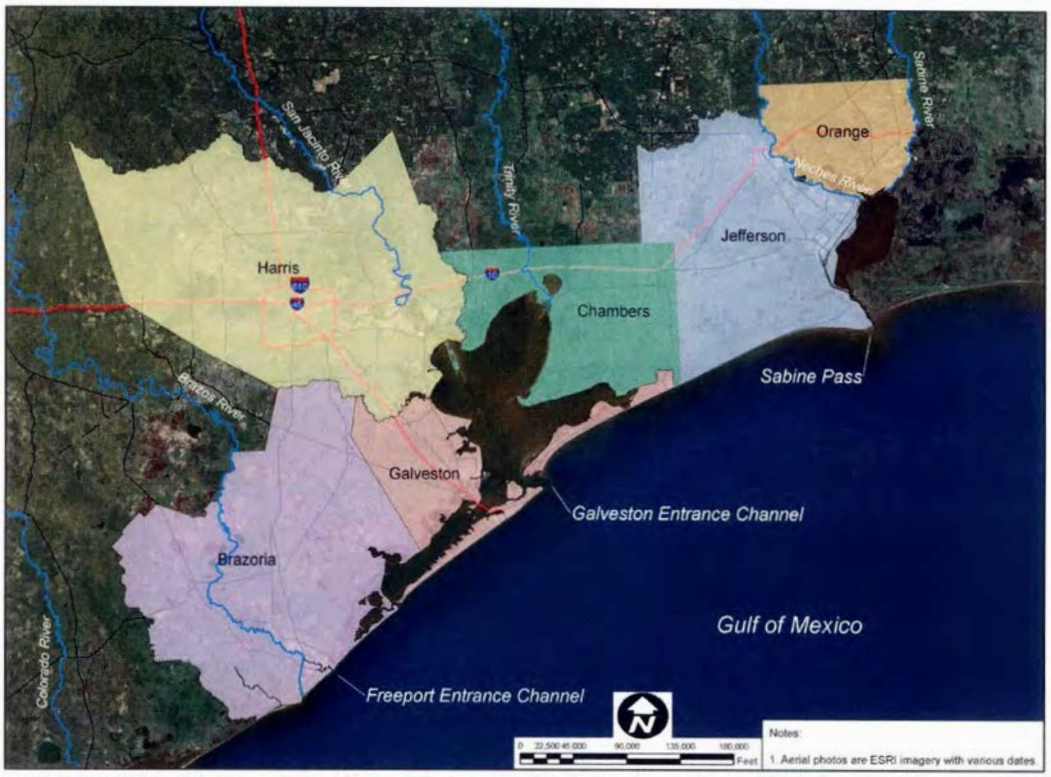
Sincerely,

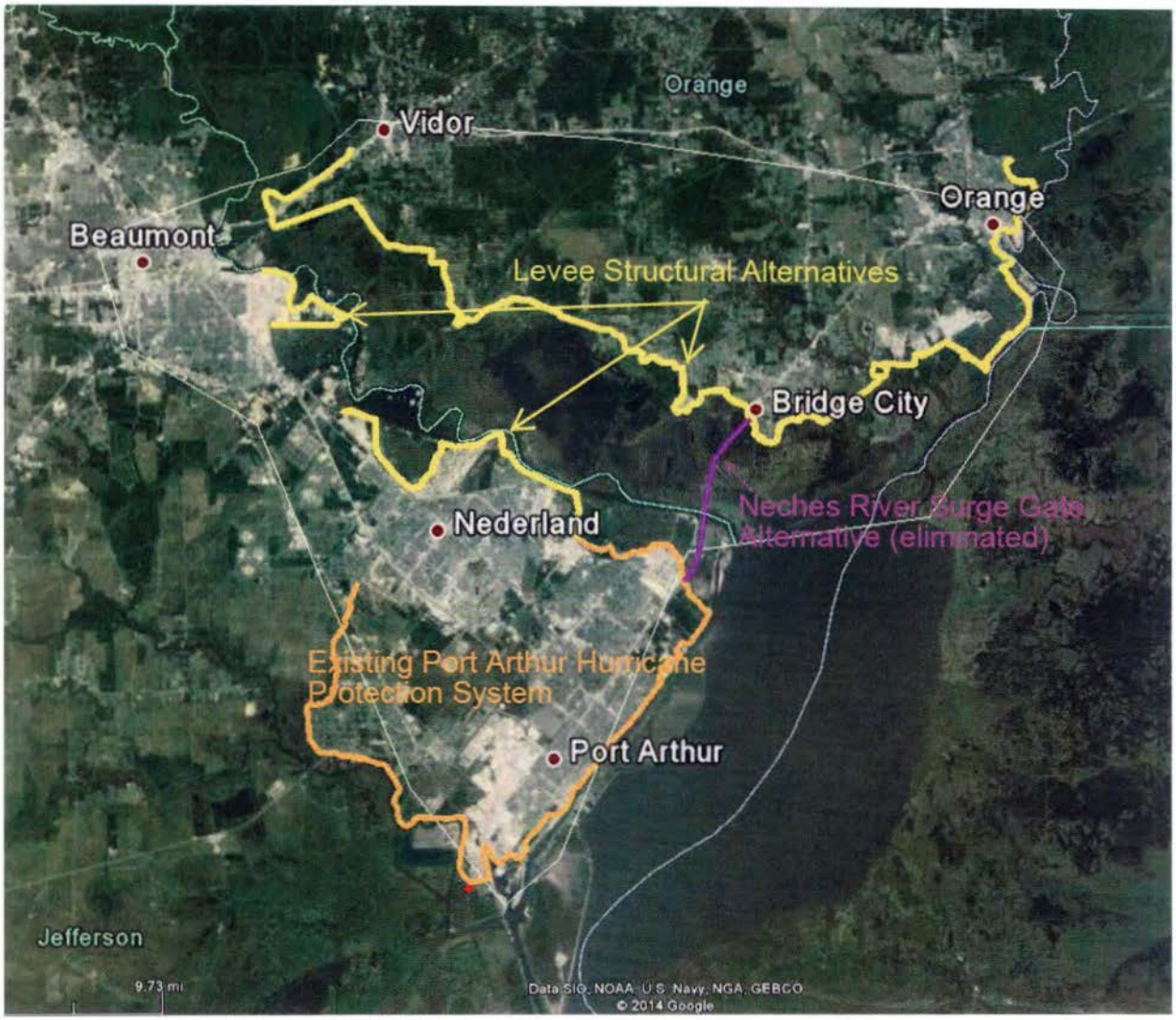
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

President Don L. Patterson
Tonkawa Tribe of Oklahoma
1 Rush Buffalo Road
Tonkawa, OK 74653

Dear President Patterson:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your tribe to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Study. The integrated feasibility report and EIS (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria counties on the upper Texas Gulf coast. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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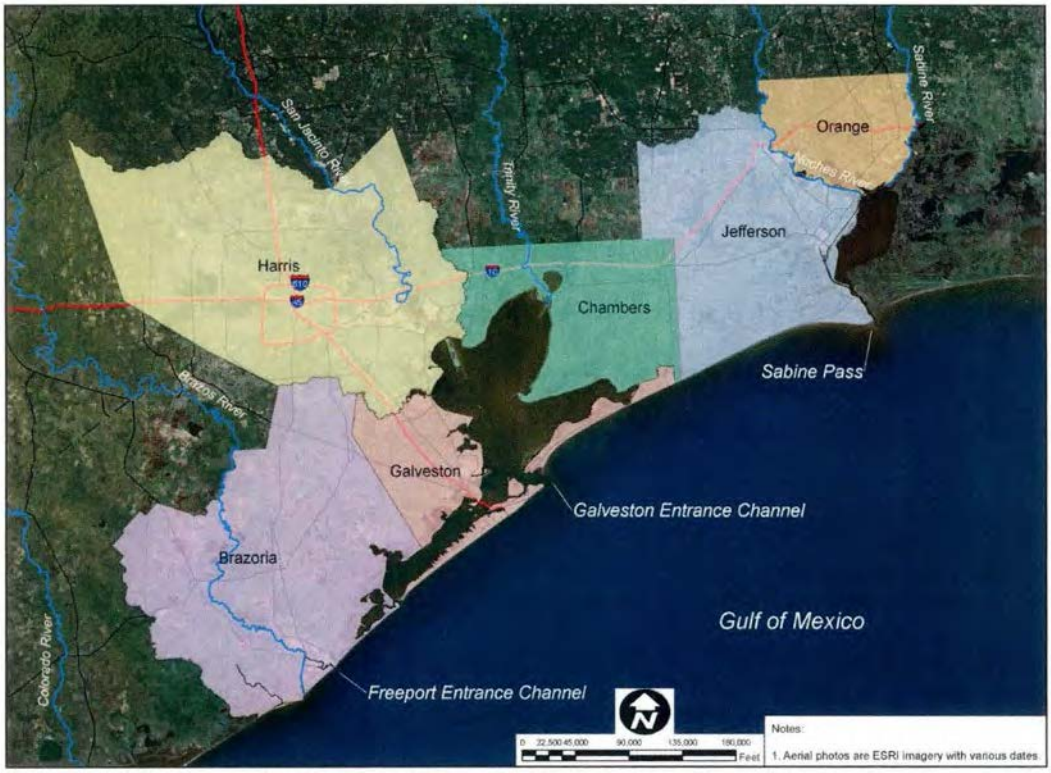
We appreciate this opportunity to consult regarding any concerns your tribe may have with potential project impacts or review periods. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

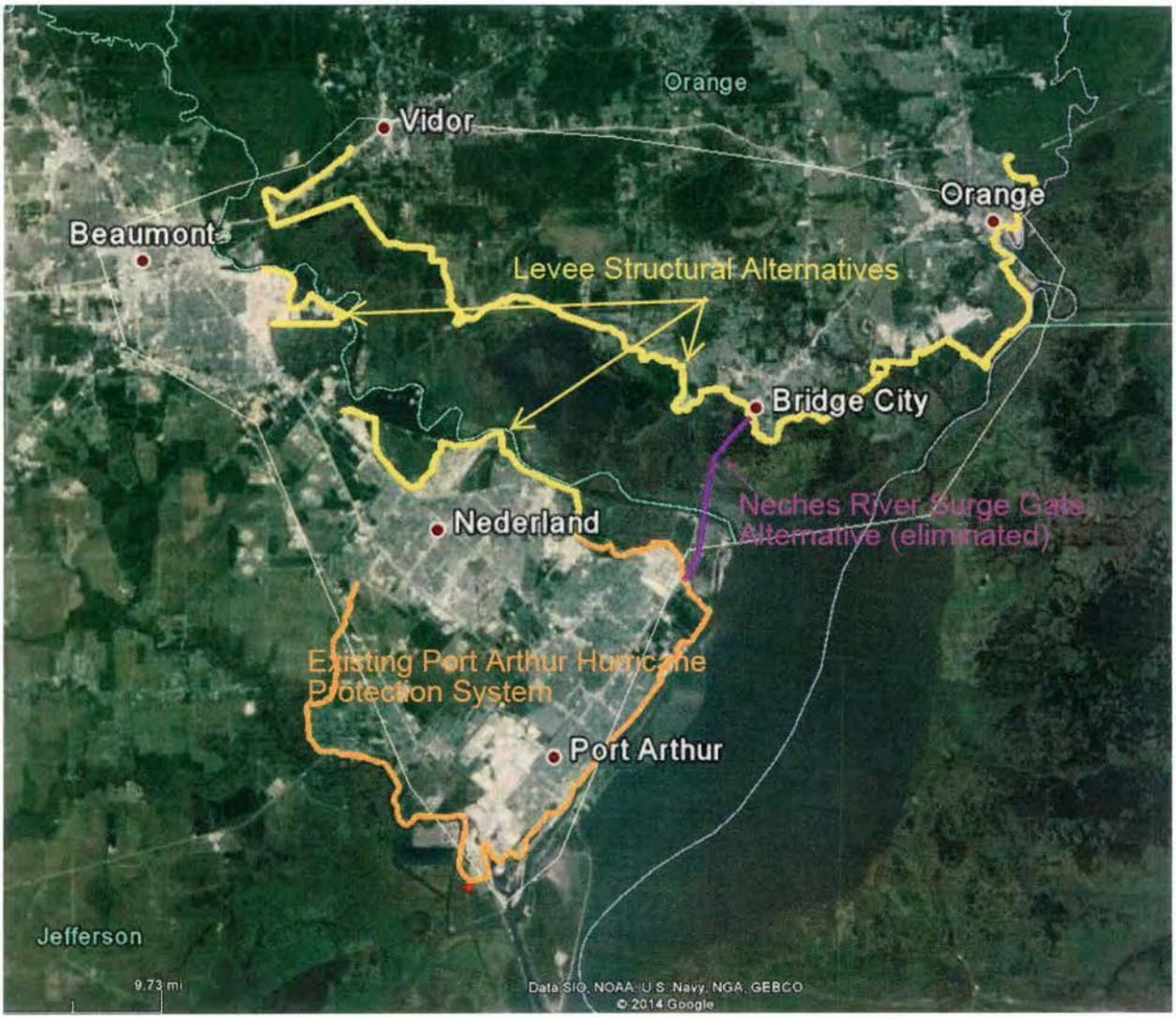
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

Cooperating Agency Request Letters

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

Edith Erfling
Field Supervisor
Clear Lake Ecological Services Field Office
17629 El Camino Real, Suite 211
Houston, Texas 77058

Dear Ms. Erfling:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system, as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

We are inviting your participation as a cooperating agency pursuant to Council on Environmental Quality (CEQ) Regulations for Implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1501.6). Furthermore, we would like to coordinate with you our schedule for study completion so that all reviews and approvals will, to the maximum extent practicable, be conducted concurrently. This concurrent coordination is required by Section 2045 of the Water Resources Development Act of 2007. The following review periods for the Biological Opinion (if needed) and the IFR-EIS have been established in accordance with the current project schedule:

Draft Biological Opinion – 120-day preparation period (January 5 through May 7, 2015)
Final Biological Opinion – 45-day review period (May 26 through July 13, 2015)
Draft Coordination Act Report – due March 31, 2015
Final Coordination Act Report – due April 17, 2015
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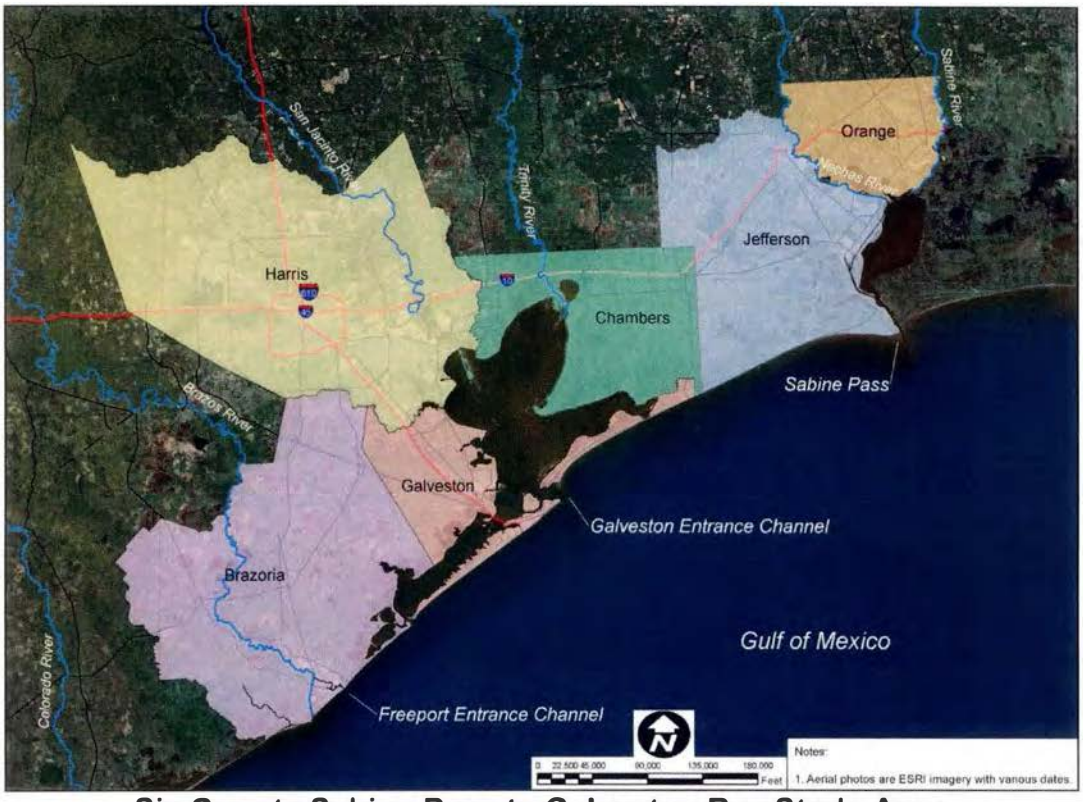
We appreciate this opportunity to invite your agency's participation as a cooperating agency and request that you advise us as to whether the review periods are acceptable to your agency. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

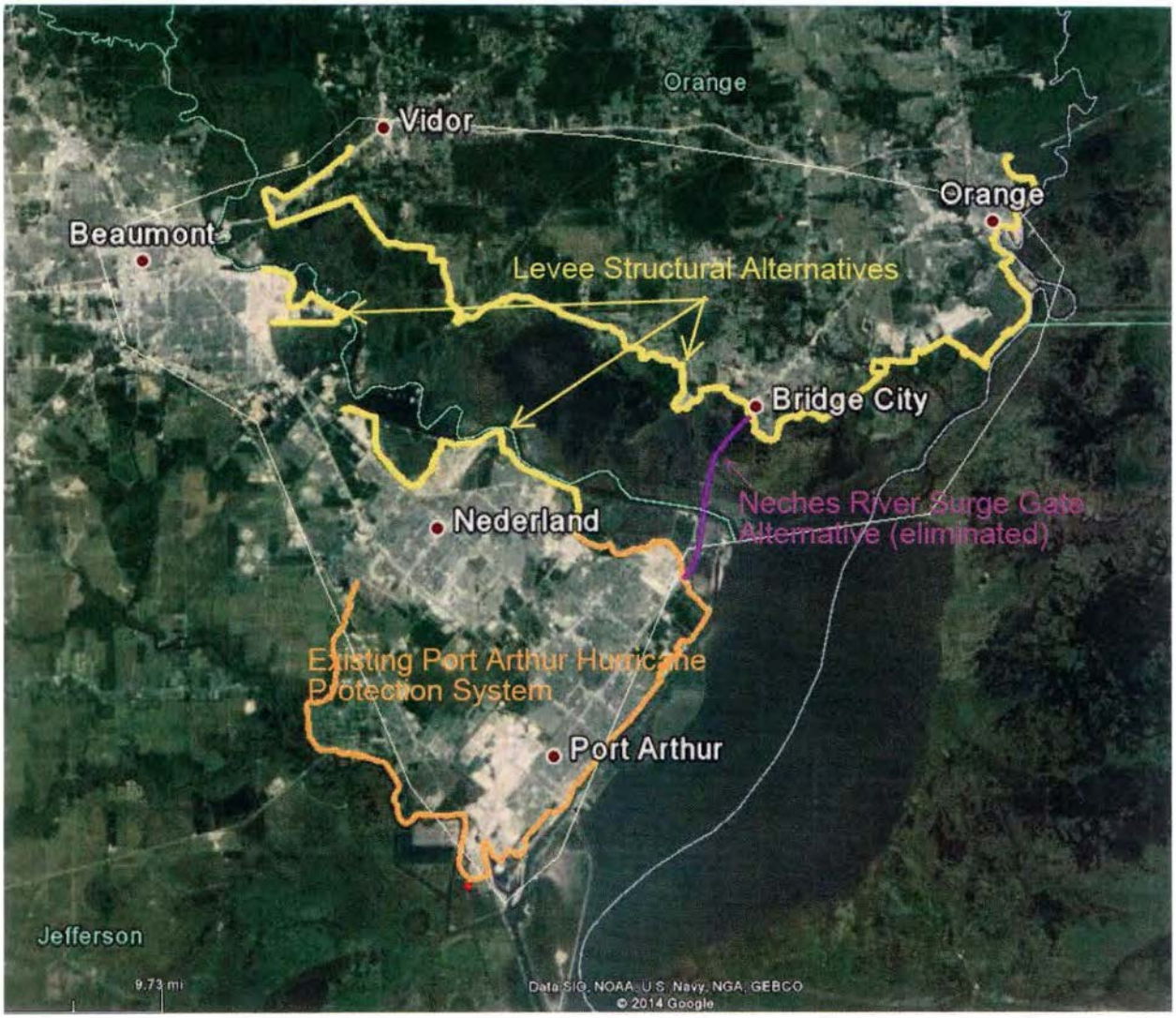
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300

November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

Roy E. Crabtree, Ph.D.
Regional Administrator
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

Dear Mr. Crabtree:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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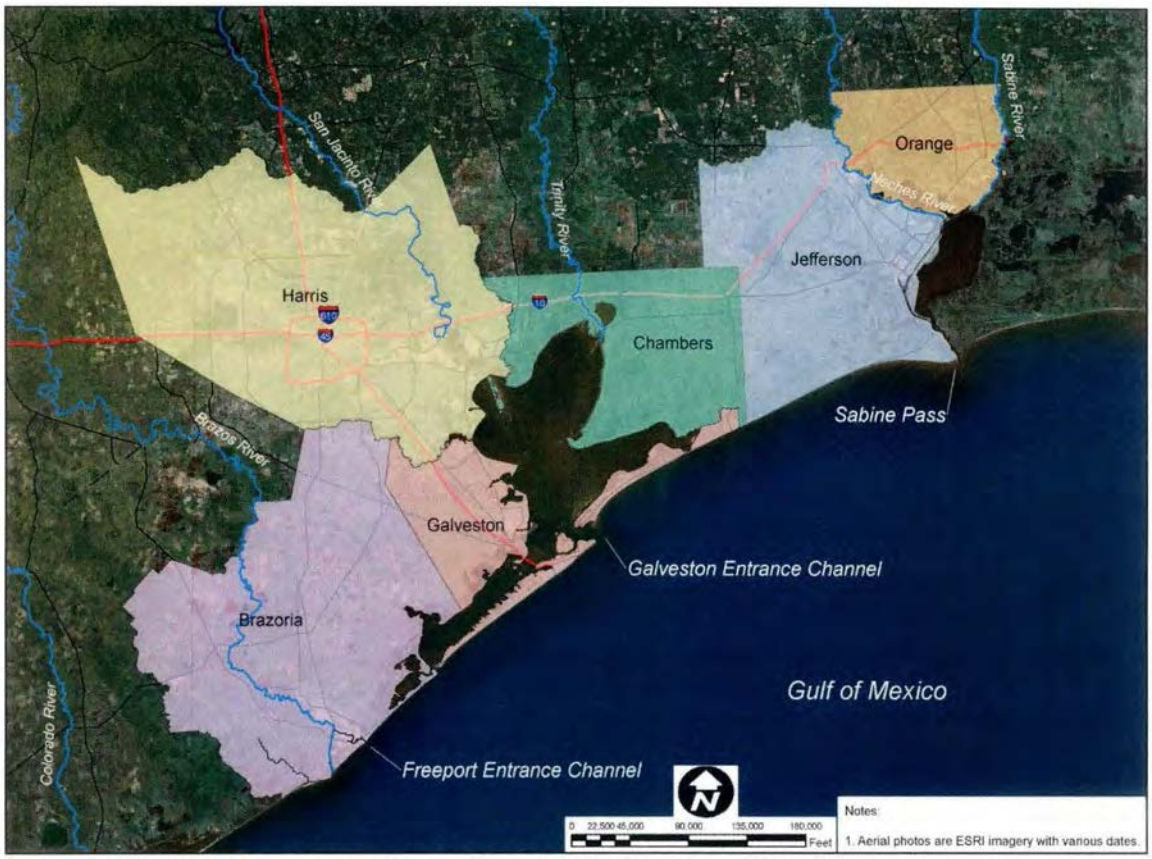
Sincerely,

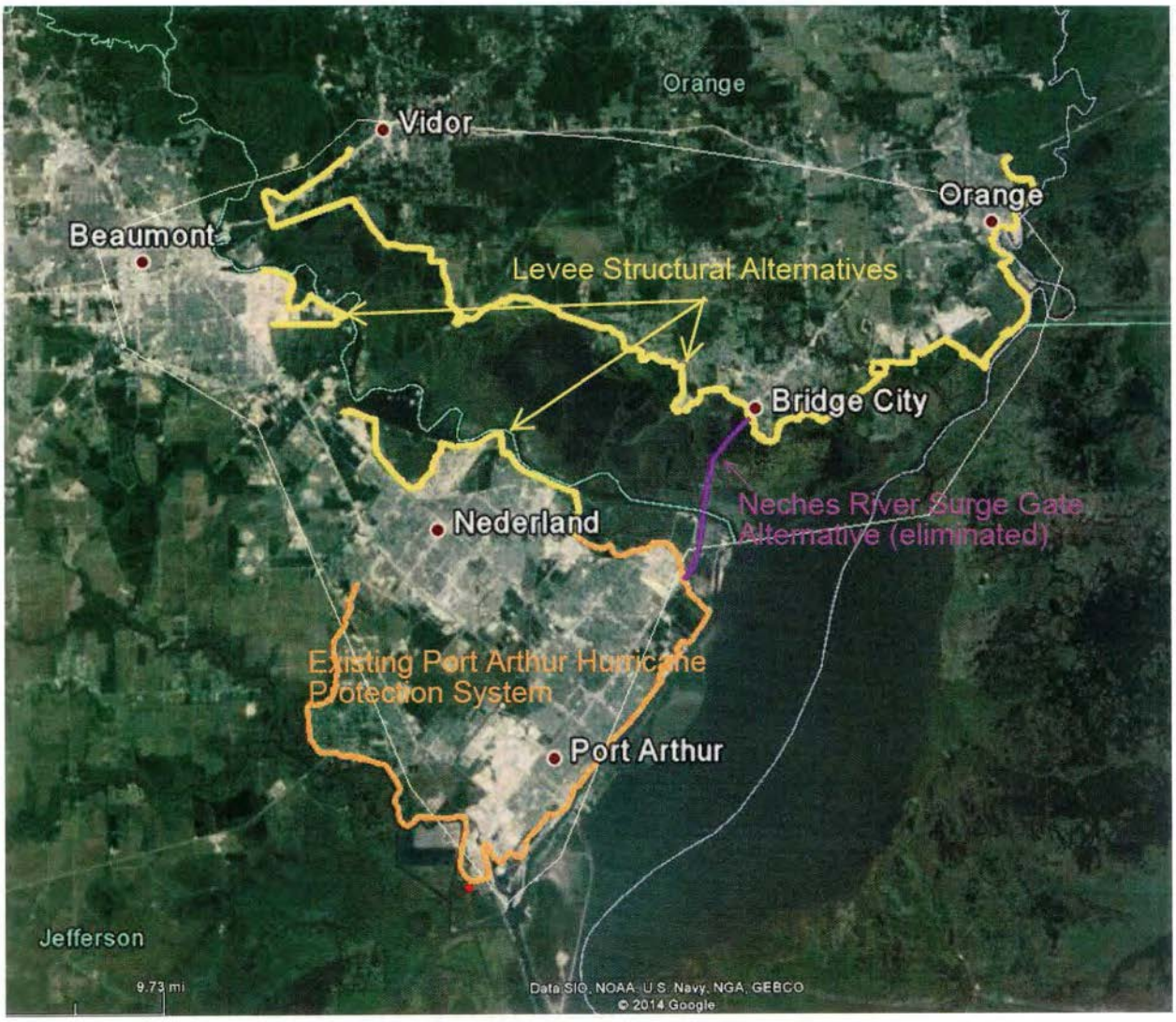
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Rusty Swafford
National Marine Fisheries Service
4700 Avenue U
Galveston, Texas 77551

Dear Mr. Swafford:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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Essential Fish Habitat Consultation (if needed) – January 5 through April 17, 2015

Review of Draft IFR-EIS –45-day review period (August 29 through October 12, 2015)
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Sincerely,

Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

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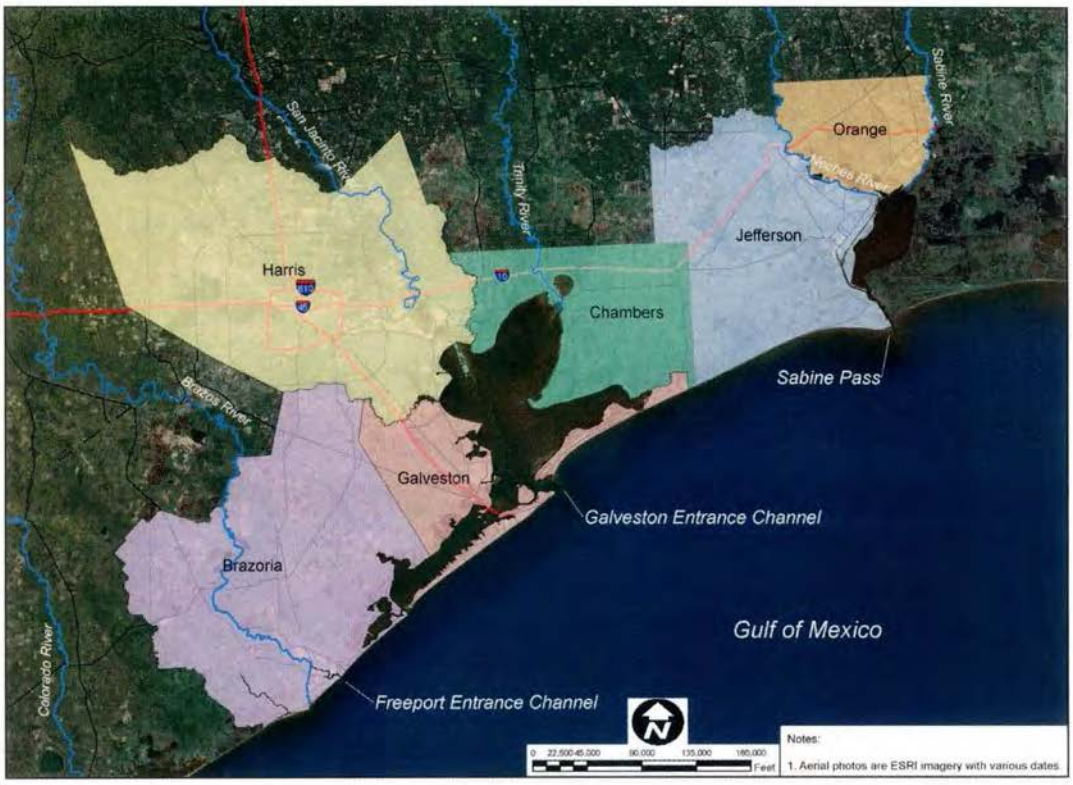
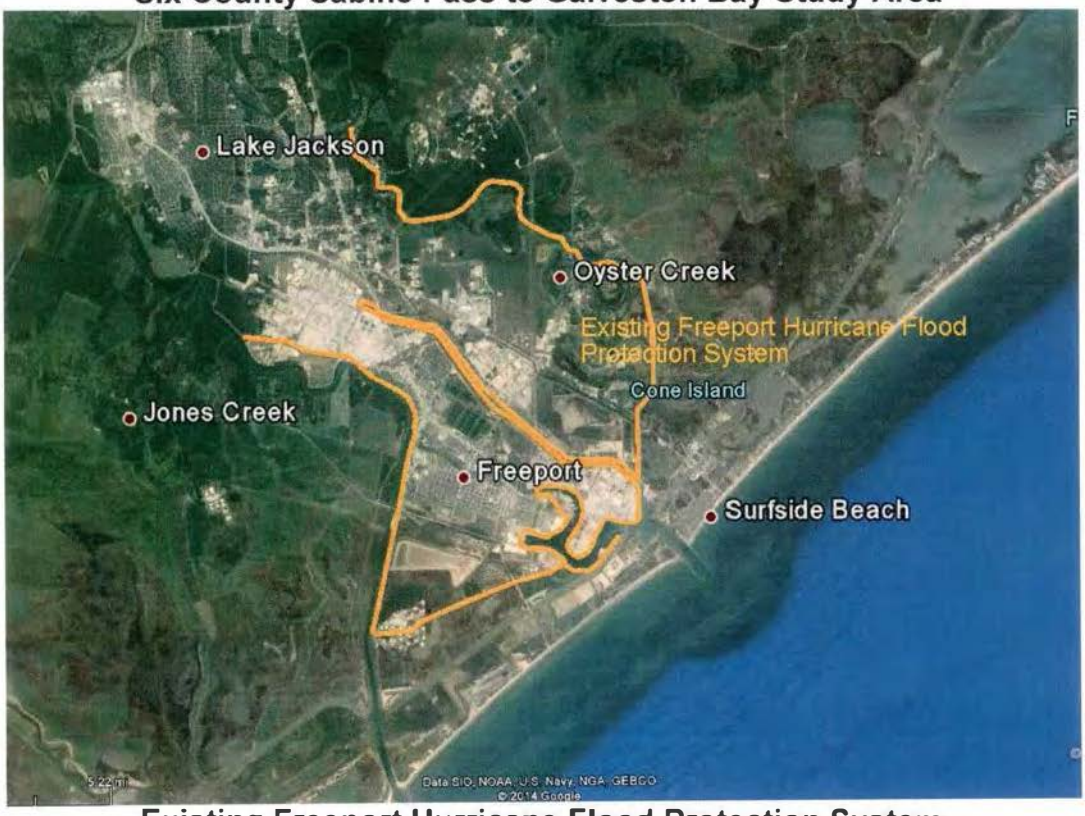


Six County Sabine Pass to Galveston Bay Study Area



Existing Freeport Hurricane Flood Protection System

Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

Rebecca Hensley
Ecosystem Resources Program Regional Director
Texas Parks and Wildlife Department
1502 FM 517 East
Dickinson, Texas 77539

Dear Ms. Hensley:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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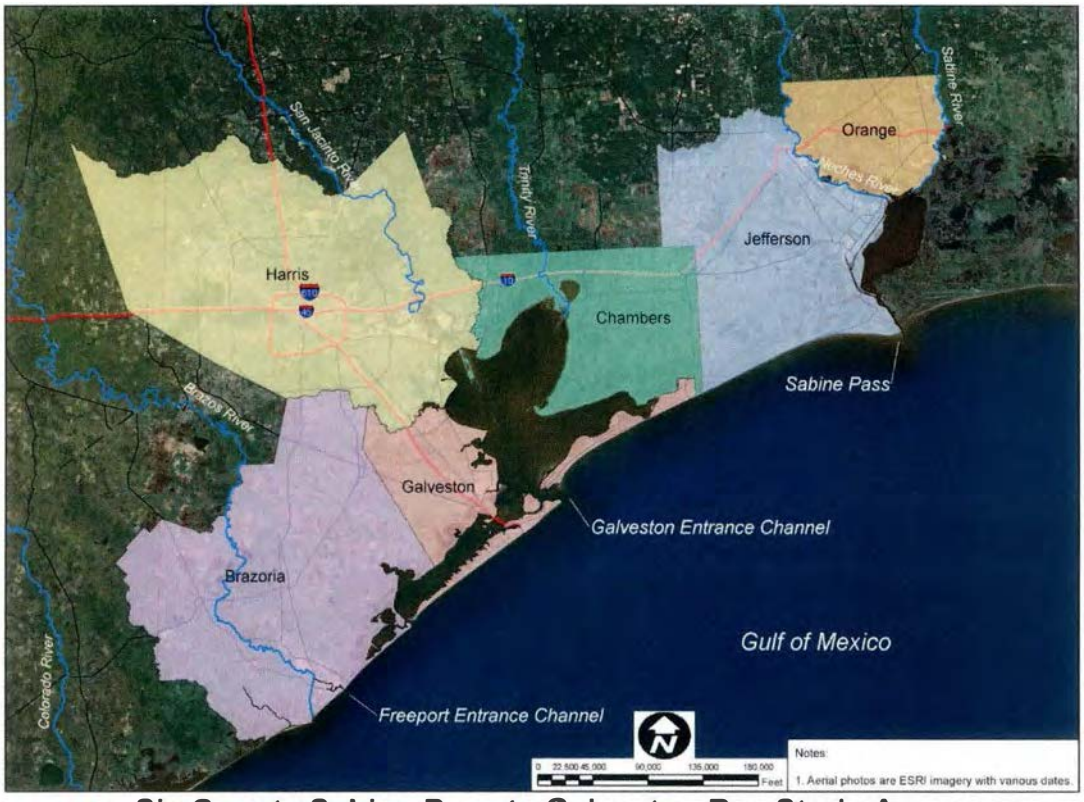
Sincerely,

Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System

Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Greg Easley
Texas Commission on Environmental Quality
P.O. Box 13087, MC-150
Austin, Texas 78711-3087

Dear Mr. Easely:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system, as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

We are inviting your participation as a cooperating agency pursuant to Council on Environmental Quality (CEQ) Regulations for Implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1501.6). Furthermore, we would like to coordinate with you our schedule for study completion so that all reviews and approvals will, to the maximum extent practicable, be conducted concurrently. This concurrent coordination is required by Section 2045 of the Water Resources Development Act of 2007. The following review period for the Clean Water Act Section 404(b)(1) Evaluation, in conjunction with the IFR-EIS, has been established in accordance with the current project schedule:

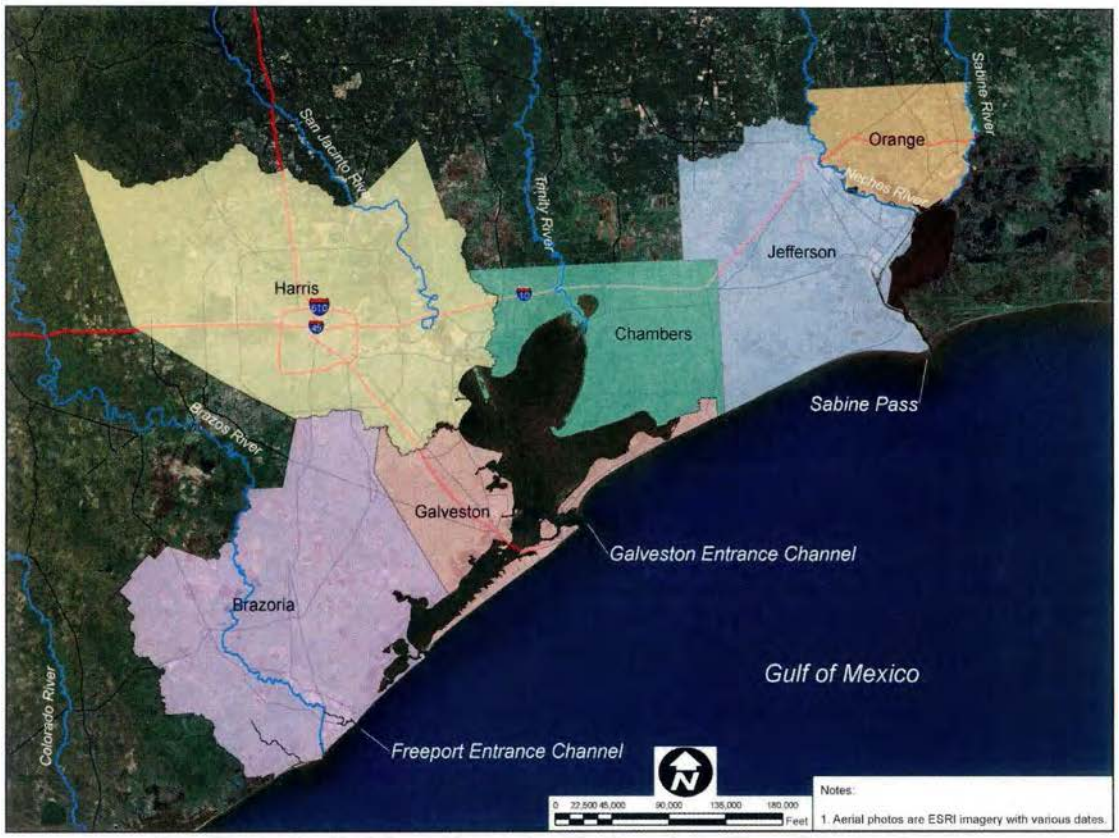
Review of Draft IFR-EIS --45-day review period (August 29 through October 12, 2015)
State and Agency Review of Final IFR-EIS – 30-day review (July 15 through August 14, 2016)

We appreciate this opportunity to invite your agency's participation as a cooperating agency and request that you advise us as to whether the review period is acceptable to your agency. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System

Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

Matthew Mahoney
Waterways Program Coordinator
Texas Department of Transportation
Maritime Division
118 E. Riverside Drive
Austin, Texas 78704

Dear Mr. Mahoney:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system, as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

We are inviting your participation as a cooperating agency pursuant to Council on Environmental Quality (CEQ) Regulations for Implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1501.6). Furthermore, we would like to coordinate with you our schedule for study completion so that all reviews and approvals will, to the maximum extent practicable, be conducted concurrently. This concurrent coordination is required by Section 2045 of the Water Resources Development Act of 2007. The following review periods for the IFR-EIS have been established in accordance with the current project schedule:

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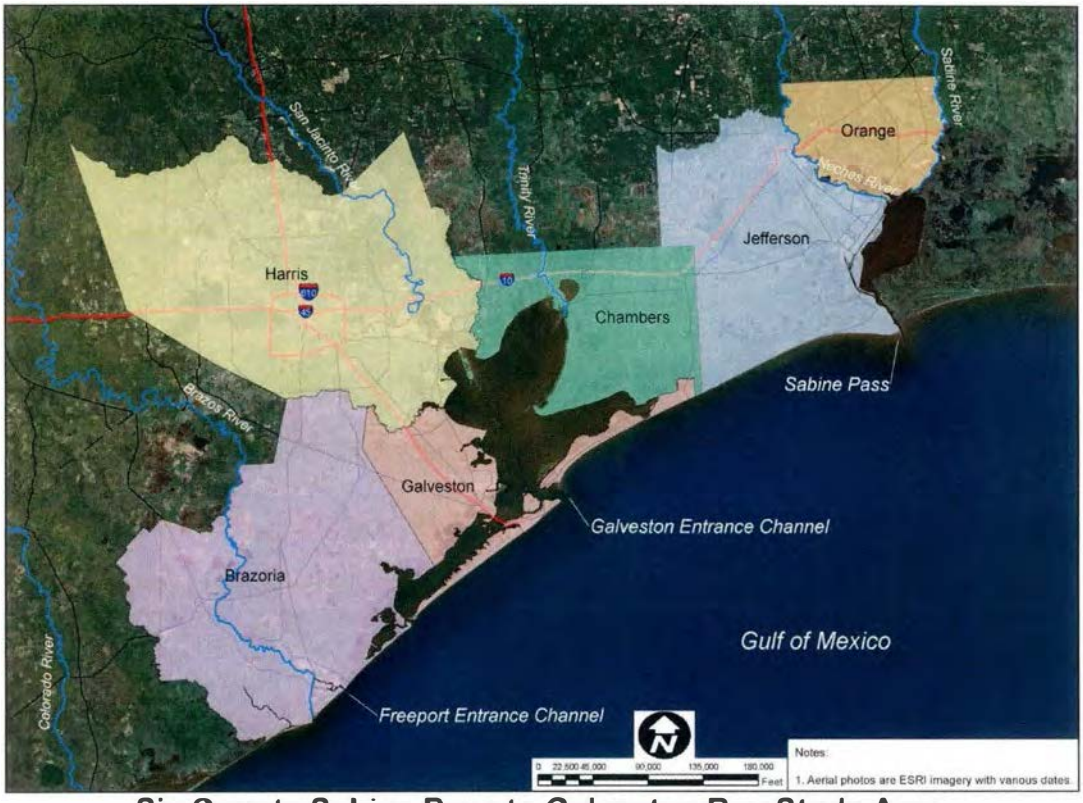
We appreciate this opportunity to invite your agency's participation as a cooperating agency and request that you advise us as to whether the review periods are acceptable to your agency. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

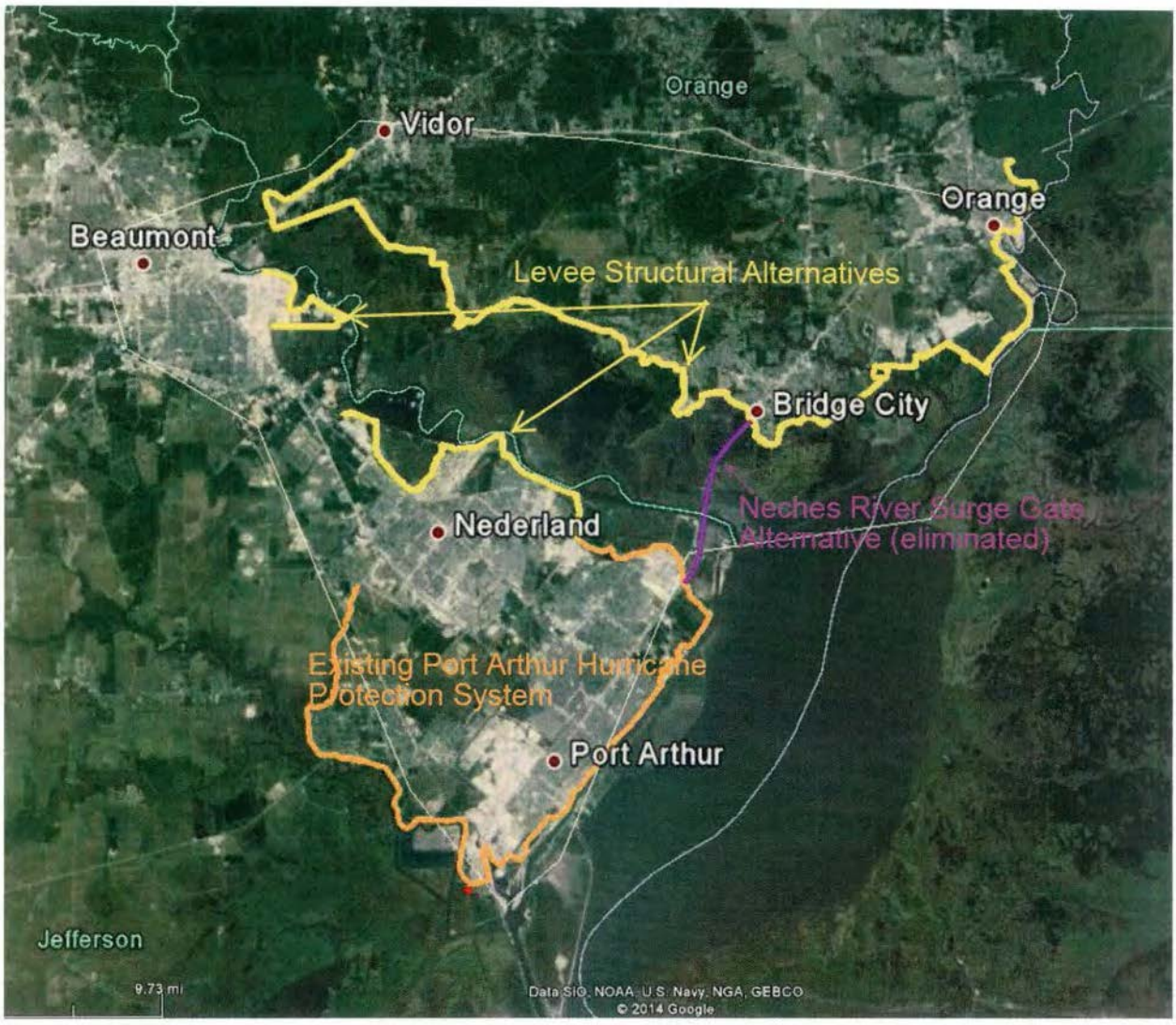
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Ray Newby
Coastal Resources Division
Texas General Land Office
P.O. Box 12873
Austin, Texas 78711-2873

Dear Mr. Newby:

The Galveston District, Corps of Engineers is currently preparing an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

Structural alternatives that will be evaluated are: (1) new surge protection levees and small, navigable surge gates on Cow and Adams Bayous in Orange and Jefferson Counties; (2) a large navigable surge gate in the Neches River near the Rainbow Bridge (eliminated); and (3) reevaluation of the existing Port Arthur and Freeport Hurricane Flood Protection (HFP) systems in Jefferson and Brazoria Counties, respectively. Maps showing the location of the existing HPFs and the structural alternatives are enclosed. Non-structural measures such as targeted buy-outs will also be evaluated. Structural and non-structural alternatives to address storm surge impacts in the Galveston Bay system, as well as ER measures throughout the six-county study area will be evaluated programmatically, with recommendations being made for detailed analyses of feasible alternatives in future studies.

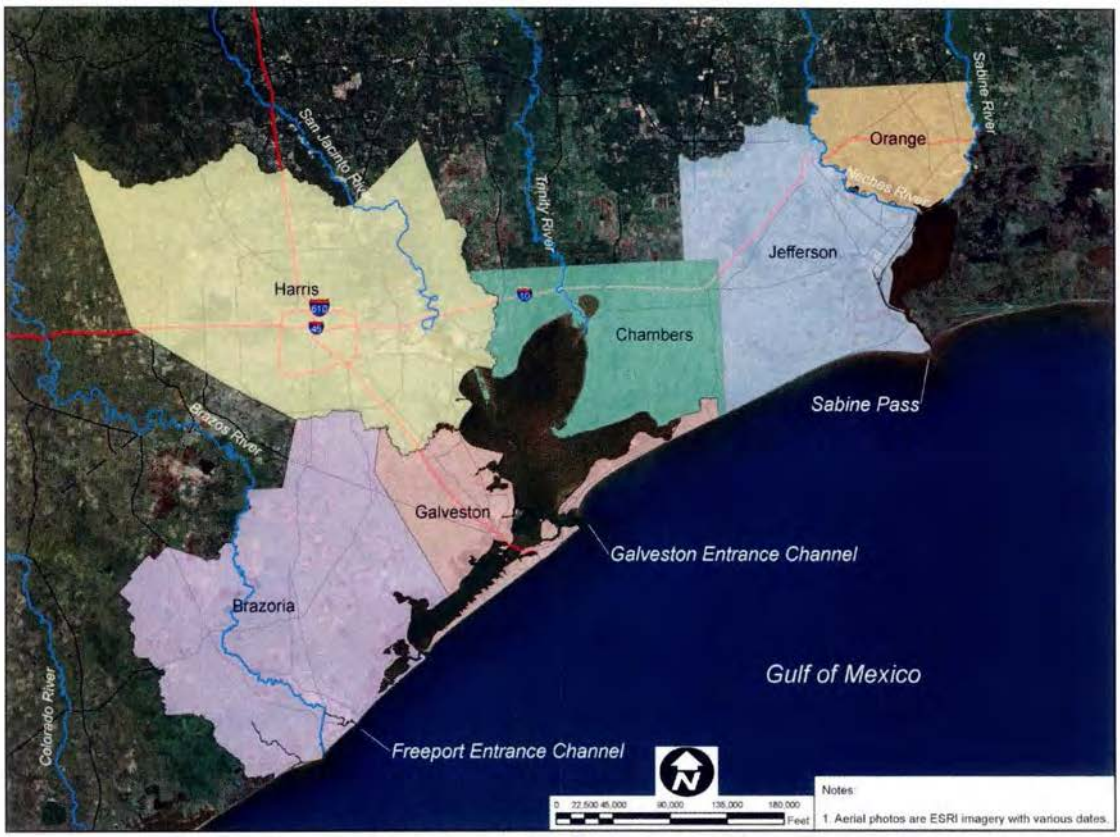
We would like to coordinate with you our schedule for study completion so that all reviews and approvals will, to the maximum extent practicable, be conducted concurrently. This concurrent coordination is required by Section 2045 of the Water Resources Development Act of 2007. Your agency's Federal Consistency Review, required under the Texas Coastal Management Plan, is currently scheduled to occur from August 29 through October 12, 2015 in conjunction with public review of the Draft IFR-EIS.

We request that you advise us as to whether the review period is acceptable to your agency. If you should have any questions regarding this request, please contact Janelle Stokes of my staff at (409) 766-3039.

Sincerely,

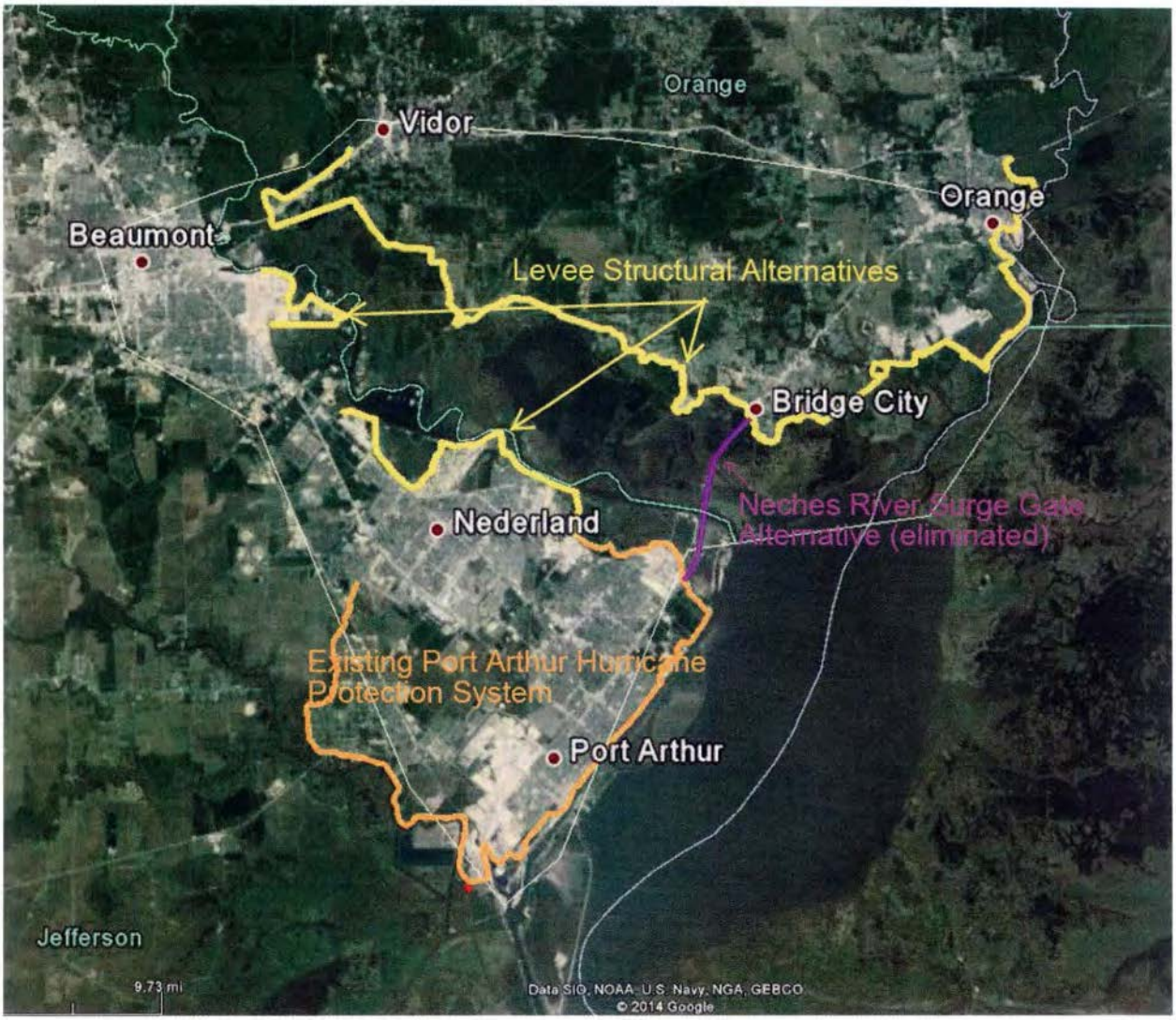
Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

Enclosures



Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System



Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO ATTENTION OF

NEPA/Cultural Resources Section

Phil Kelley
Manager
Jefferson County Drainage District No. 7
P.O. Box 3244
Port Arthur, Texas 77643

Dear Mr. Kelley:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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Sincerely,

Carolyn Murphy
Chief, Unit A, NEPA/Cultural
Resources Section

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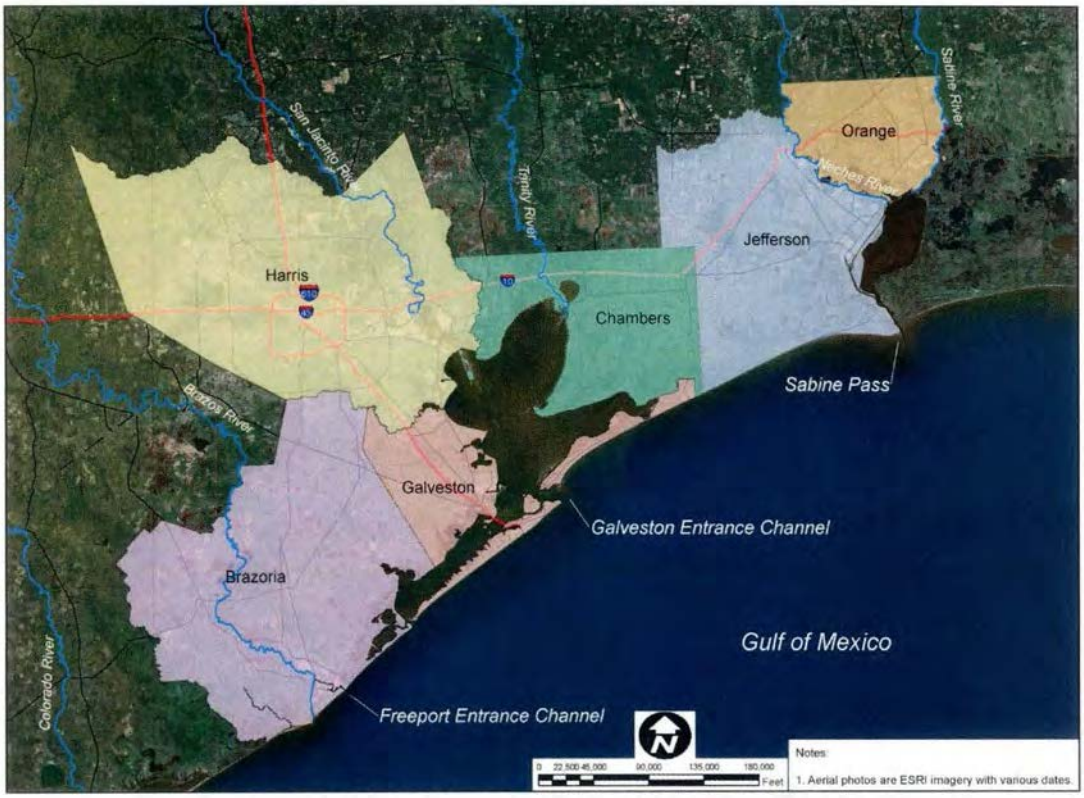

Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System

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DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

Brent Peveto
Director-At-Large
Orange County Drainage District
8081 Old Highway 90
Orange, Texas 77630

Dear Mr. Peveto:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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Carolyn Murphy
Chief, Unit A, NEPA/Cultural
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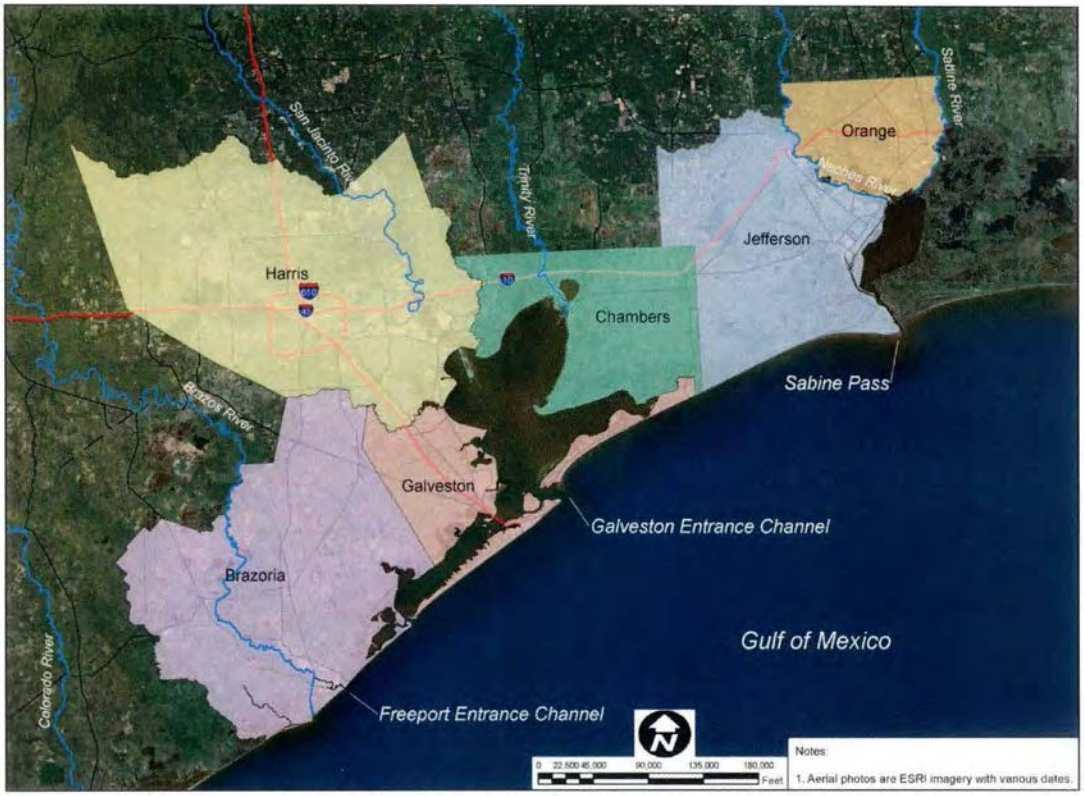

Six County Sabine Pass to Galveston Bay Study Area

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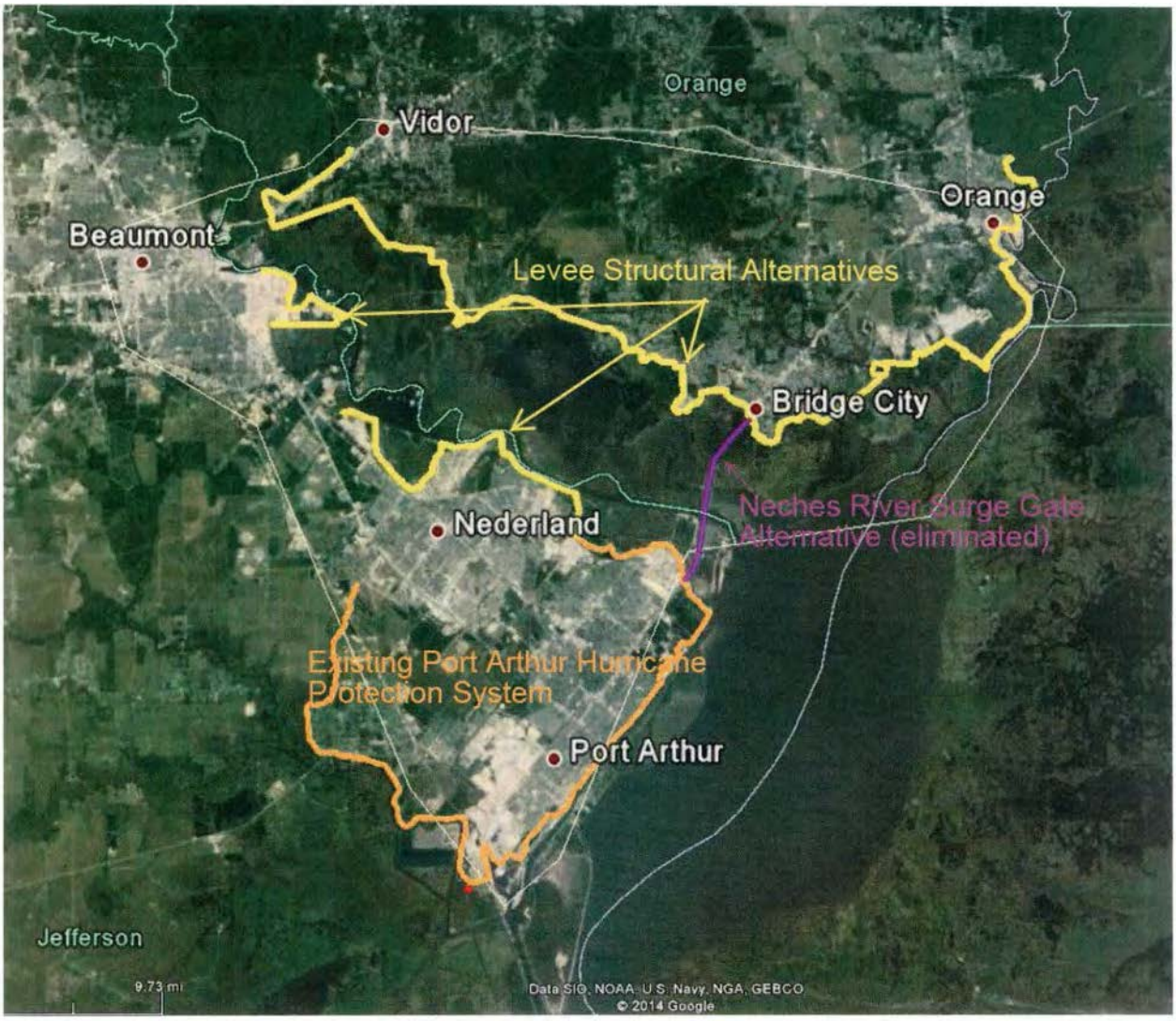

Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300
FORT WORTH, TEXAS 76102-0300
November 19, 2014

REPLY TO
ATTENTION OF

NEPA/Cultural Resources Section

George Kidwell
Chairman
Velasco Drainage District
915 Stratton Ridge Road
Clute, Texas 77531

Dear Mr. Kidwell:

The Galveston District, Corps of Engineers, and the non-federal sponsor, the Texas General Land Office, would like to invite your agency to participate as a cooperating agency in the development of an Environmental Impact Statement (EIS) for the Sabine Pass to Galveston Bay, Texas, Coastal Storm Risk Management and Ecosystem Restoration Feasibility Study. The Integrated Feasibility Report and Environmental Impact Statement (IFR-EIS) will evaluate structural and non-structural alternatives which address coastal storm risk management (CSRM) impacts and ecosystem restoration (ER) opportunities in Orange, Jefferson, Chambers, Harris, Galveston and Brazoria Counties. The Draft IFR-EIS is currently scheduled to be released for public review and comment in August 2015.

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Sincerely,

Carolyn Murphy
Chief, Unit A, NEPA/Cultural
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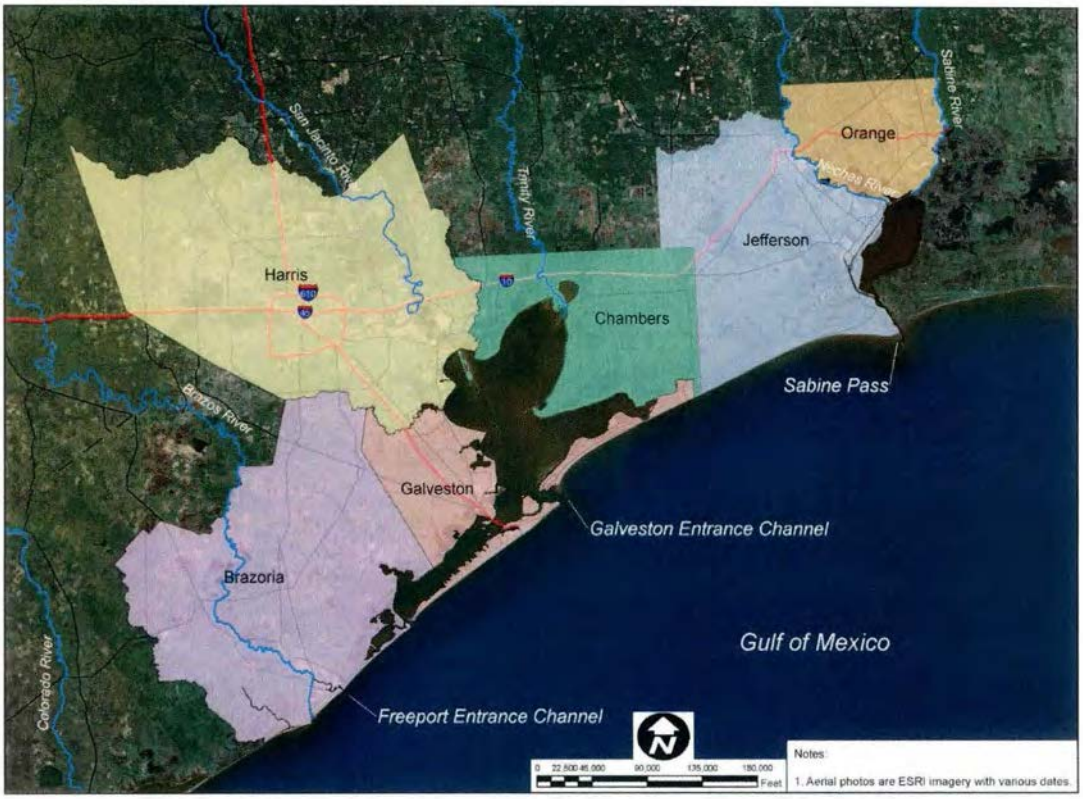

Six County Sabine Pass to Galveston Bay Study Area

Existing Freeport Hurricane Flood Protection System

Existing Port Arthur Hurricane Flood Protection System, Levee Structural Alternatives and Neches River Surge Gate Alternative

Comments Letters on Draft Report

(to be added in Final Integrated Feasibility Report-Environmental Impact Statement)