PORT OF BROWNSVILLE
• WORLD CLASS •

November 24, 2014

Honorable Jo-Ellen Darcy
Assistant Secretary of the Army for Civil Works
108 Army
The Pentagon
Washington, DC 20310-0108

Dear Secretary Darcy:

As the sponsor of the Brazos Island Harbor (BIH) Project, we formally request that the BIH Project be included in the Corps Annual Report to Congress as prescribed by Title VII, Section 7001 (a)(1) of the Water Resources Reform Development Act of 2014.

Congress received the signed BIH Chief's Report, accompanied by the report of the District and Division Engineer, in October of 2014. This report is an interim response to a resolution of the Committee on Public Works, U.S. House of Representatives, dated May 5, 1966. The Committee authorized USACE to conduct a study of BIH, Texas, to determine whether the project should be modified in any way, particularly with a view to widening and deepening the existing channels.

Additionally, the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005 (P.L. 109-13), Section 6009, "Offshore Oil and Gas Fabrication Ports", provided that in determining the economic justification for navigation projects involving offshore oil and gas fabrication ports, the Secretary is directed to measure and include in the National Economic Development (NED) calculation the value of future energy exploration and production fabrication contracts and transportation cost savings that would result from larger navigation channels. The process has been a long time in coming but has yielded a project that has a BCR of 6.4 to 1.

Attached for your review is supporting information -- should you need it -- to include this project in the Corps Annual Report to Congress.

Sincerely,

Eduardo A. Campirano
Port Director and CEO

Attachments:
- USACE Signed Chief's Report
- USACE CWRB Presentation
- Port of Brownsville (Sponsor) CWRB Presentation and script

Brownsville Navigation District
1000 Foust Road • Brownsville, Texas 78521 • Ph (956) 831-4592 • (800) 378-5395 • Fax (956) 831-5006
www.portofbrownsville.com

DEPARTMENT OF THE ARMY
CHIEF OF ENGINEERS
2600 ARMY PENTAGON
WASHINGTON, DC 20310-2600

DAEN

03 NOV 2014

SUBJECT: Brazos Island Harbor Channel Improvement Project, Texas

THE SECRETARY OF THE ARMY

1. I submit for transmission to Congress my report on navigation improvements for the Brazos Island Harbor (BIH) Channel Improvement Project, Texas. It is accompanied by the report of the district and division engineers. This report is an interim response to a resolution of the Committee on Public Works, U.S. House of Representatives, dated May 5, 1966. The committee authorized USACE to conduct a study of BIH, Texas, to determine whether the project should be modified in any way, particularly with a view to widening and deepening the existing channels. Additionally, the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005 (P.L. 109-13), Section 6009, "Offshore Oil and Gas Fabrication Ports", provided that in determining the economic justification for navigation projects involving offshore oil and gas fabrication ports, the Secretary is directed to measure and include in the National Economic Development (NED) calculation the value of future energy exploration and production fabrication contracts and transportation cost savings that would result from larger navigation channels. Preconstruction engineering and design activities for this proposed project, if funded, would be continued under the 1966 authority. The existing BIH 42-foot navigation project was authorized by the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662) and construction was completed in 1996.

2. The reporting officers recommend authorizing a plan that will contribute significantly to the economic efficiency of commercial navigation in the region. The recommended plan includes channel deepening along a majority of the channel length with no widening. Since the recommended plan would not have significant adverse effects, no compensatory mitigation measures (beyond minimization and avoidance) would be required. The feasibility report did not identify a NED Plan; however, the analysis indicated that the net excess benefits were still increasing with deeper channel dimensions. The recommended channel deepening plan is the deepest plan that the non-federal sponsor would support due to financial constraints. Therefore, the recommended plan is a Categorical Exemption to the NED Plan. All project features are located in the State of Texas.

3. The Brownsville Navigation District, acting as the financial representative for the Port of Brownsville, is the non-federal cost sharing sponsor for all features. Based on October 2014 price levels, the estimated total project cost of the plan is $204,587,000 for deep-draft navigation.

In addition, there are non-federal associated costs of $47,257,000 for the dredging of berthing areas to include construction of Placement Area (PA) capacity associated with third party use and development of other local service facilities and federal associated costs of $108,000 for aids to navigation. Total project implementation costs including the associated costs are $251,952,000. The federal share of the total project implementation cost would be about $116,116,000 and the non-federal share would be about $135,836,000.

4. The reporting officers recommend a plan to modify the existing BIH Channel. No widening of the BIH Channel is proposed. The recommended plan consists of the following improvements:

a. The entrance and jetty channels from Station –17+000 to 0+000 would be deepened from 44 feet to a depth of 54 feet Mean Lower Low Water (MLLW). This provides an additional 2 feet of depth, beyond the interior channel depth, to allow for the effects of vessel pitch, roll, heave, and yaw occurring as a result of strong currents, waves, and wind.

b. From Station 0+000 to 84+200, the channel would be deepened from 42 feet to a depth of 52 feet MLLW.

c. From Station 84+200 to 86+000, the existing channel depth of 42 feet MLLW would be maintained since there is no forecast change in the design drafts of vessels using this portion of the channel in the future.

d. The channel would continue to be maintained at the existing depth of 36 feet MLLW from Station 86+000 to the end of the Turning Basin, as ships will have been light-loaded or unloaded before entering the basin.

5. Dredged material placement for this project would be provided in accordance with the Dredged Material Management Plan (DMMP) developed during the study that identified the least cost base plan for placement of dredged material. Deepening the BIH Channel would generate approximately 14.1 million cubic yards of new work material and 61.7 million cubic yards of maintenance material over the 50-year period of economic evaluation. New work material will be placed in the new work Ocean Dredged Material Disposal Sites (ODMDS) and the existing PAs. Maintenance material from the entrance and jetty channels and the first 11,000 feet of the main channel would be placed offshore in a nearshore feeder berm. If for some reason the feeder berm could not be used, this reach of maintenance material could be placed in the maintenance ODMDS. Material from the inland reaches would be placed in existing confined, upland PAs adjacent to each reach. No horizontal expansion of existing upland sites would be required.

6. The estimated total project first cost of constructing the project is $204,587,000 based on October 2014 price levels, which includes $204,582,000 for channel modification and dredged

material placement and $5,000 for the non-federal sponsor's provision of lands for the project. There are no costs for fish and wildlife mitigation expected for this project and no cultural resource mitigation costs are expected at this time. Additionally, there are no utility relocations expected with this project. This estimated first cost includes a federal cost of $116,008,000 and a non-federal cost of $88,579,000, as apportioned in accordance with the cost sharing provisions of Section 101 of WRDA 1986, as amended. This results in a blended cost sharing as follows:

a. The costs for the deepening of the channel from 42 to 45 feet will be shared at the rate of 75 percent by the government and 25 percent by the non-federal sponsor. Accordingly, the federal and non-federal shares of the estimated $54,872,000 cost in this zone will be approximately $41,150,000 and $13,722,000, respectively.

b. The costs for the deepening the channel from 45 to 52 feet will be shared at the rate of 50 percent by the government and 50 percent by the non-federal sponsor. Accordingly, the federal and non-federal shares of the estimated $149,715,000 cost in this zone will be approximately $74,858,000 and $74,858,000, respectively.

c. Additional 10 Percent Payment. In addition to payment by the non-federal sponsor for its share of the total first costs of construction of the general navigation features (GNF) as estimated and described in sub-paragraphs 6(a) and 6(b) above, the non-federal sponsor must pay an additional 10 percent of the cost of the GNF of the project in cash over a period not to exceed 30 years, with interest. The additional 10 percent payment without interest is estimated to be $20,459,000. There is no crediting of the value of lands, easements, rights-of-way, and relocations (LERRs) provided by the non-federal sponsor because this value has already been credited with previous project construction.

d. Operations and Maintenance (O&M) Costs. The additional annual cost of O&M for this recommended plan is estimated at $2,971,000. In accordance with Section 101(b) of WRDA 1986, as modified by Section 2102(b) of the Water Resources Reform and Development Act (WRRDA) of 2014 (P.L. 113-121), the non-federal sponsor will be responsible for an amount equal to 50 percent of the excess of the cost of the O&M of the project over the cost which would be incurred for O&M of the project if the project had a depth of 50 feet. Dike raising for the maintenance will be cost shared as O&M costs, with the costs for dike raising associated with deepening the channel from 42 to 50 feet being a 100 percent government expense and the costs associated with deepening from 50 to 52 feet being shared at the rate of 50 percent by the government and 50 percent by the non-federal sponsor. Costs for dike raising for dredging of berthing areas and development of other local service facilities is 100 percent a non-federal sponsor responsibility. The federal share for the annual cost attributable to O&M is $2,674,000 and the non-federal sponsor is responsible for $297,000.

e. Associated Costs. Estimated total project associated costs of $47,365,000 include non-federal costs of $47,257,000 associated with dredging of berthing areas to include construction

of PA capacity associated with third party use and development of other local service facilities and associated federal costs of $108,000 for navigation aids (a U.S. Coast Guard expense).

f. Section 902 Calculation. For the purpose of calculating the maximum cost of the project pursuant to Section 902 of WRDA 1986, as amended, the total estimated project first cost is $204,587,000 which consists of an estimated federal share of $116,008,000 and an estimated non-federal share of $88,579,000. As explained in paragraph 6, above, the total estimated first cost for this purpose includes the estimates for GNF construction costs, any value of LERRs provided under Section 101(a)(3) of WRDA 1986, as amended.

7. Based on October 2014 price levels, a discount rate of 3.375 percent, and a 50-year period of economic analysis, the project average annual benefits and costs for the BIH improvements are estimated at $20,599,000 and $13,896,000, respectively, with a resulting net benefit of $6,703,000 and a benefit-to-cost ratio (BCR) of 1.5 to 1. Using the allocable benefits described in the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005 (P.L. 109-13), Section 6009, "Offshore Oil and Gas Fabrication Ports", resulted in project annual benefits of $90,871,000, net benefits of 76,975,000 and a BCR of 6.5 to 1.

8. Risk and uncertainty were evaluated for economic benefits, costs, and sea level rise. Economic sensitivity analyses were conducted to determine the sensitivity of projected benefits to changes in key assumptions, such as commodity tonnage, fleet distribution, and other various growth rates. In accordance with the USACE Engineering Circular 1165-2-212, Sea-Level Change Consideration for Civil Works Programs, the study details the analysis performed to identify potential sea level rise rates. Low, intermediate, and high projections of relative sea level rise (RSLR) at the end of the 50-year period of analysis are estimated to be 0.63 feet, 1.06 feet, and 2.40 feet, respectively. The historic average rate for the project area is about 1.26 feet per 100 years. In general, RSLR (low, intermediate, and high) will not affect the function of the project alternatives. Upland PAs would be armored to withstand the effects of rising sea levels and the cost of this armoring is included in the total project cost estimate. Minor impacts in the project vicinity would likely occur due to RSLR, but not as a consequence of the proposed project.

9. In accordance with the USACE Engineering Circular on review of decision documents, all technical, engineering, and scientific work underwent an open, dynamic, and vigorous review process to ensure technical quality. This included an Agency Technical Review (ATR), an Independent External Peer Review (IEPR), and a USACE Headquarters policy and legal review. All concerns of the ATR have been addressed and incorporated into the final report. The IEPR was completed by Battelle Memorial Institute. A total of 13 comments were documented. The comments were related to plan formulation, vessel fleet analysis, benefits, dredging and sedimentation, risk and uncertainty, and the cumulative impacts of changes in air quality. In response, sections in the main report and EIS were expanded to include additional information.

10. Washington level review indicates that the project recommended by the reporting officers is technically sound, environmentally and socially acceptable, and economically justified. The plan complies with all essential elements of the 1983 U.S. Water Resources Council's Economic and Environmental Principles and Guidelines for Water and Land Related Resources Implementation Studies and complies with other administrative and legislative policies and guidelines. The views of interested parties, including federal, state, and local agencies were considered. There were no comments from public review of the draft integrated report. During state and agency review, a letter was received from the Texas Commission on Environmental Quality, which did not include concerns about the project.

11. I concur in the findings, conclusions, and recommendations of the reporting officers. Accordingly, I recommend that navigation improvements for the BIH be authorized in accordance with the reporting officers' recommended plan at an estimated cost of $204,587,000 with such modifications as in the discretion of the Chief of Engineers may be advisable. My recommendation is subject to cost sharing, financing, and other applicable requirements of federal and state laws and policies, including Section 101 of WRDA 1986, as amended. The non-federal sponsor would provide the non-federal cost share and all LERRs. Further the non-federal sponsor would be responsible for the non-federal cost share of the operation and maintenance, as described above. This recommendation is subject to the non-federal sponsor agreeing to comply with all applicable federal laws and policies, including but not limited to:

a. Provide 10 percent of the total cost of construction of the GNFs attributable to dredging to a depth not in excess of 20 feet; plus 25 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 20 feet but not in excess of 45 feet; plus 50 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 45 feet as further specified below:

(1) Provide 50 percent of design costs allocated by the government to commercial navigation in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

(2) Provide, during construction, any additional funds necessary to make its total contribution for commercial navigation equal to 10 percent of the total cost of construction of the GNFs attributable to dredging to a depth not in excess of 20 feet; plus 25 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 20 feet but not in excess of 45 feet; plus 50 percent of the total cost of construction of the GNFs attributable to dredging to a depth in excess of 45 feet;

b. Provide all LERRs, including those necessary for the borrowing of material and placement of dredged or excavated material, and perform or assure the performance of all relocations, including utility relocations, all as determined by the government to be necessary for the construction or operation and maintenance of the GNFs;

c. Pay with interest, over a period not to exceed 30 years following completion of the period of construction of the GNFs, an additional amount equal to 10 percent of the total cost of construction of GNFs less the amount of credit afforded by the government for the value of the LERRs, including utility relocations, provided by the non-federal sponsor for the GNFs. If the amount of credit afforded by the government for the value of LERRs, including utility relocations, provided by the sponsor equals or exceeds 10 percent of the total cost of construction of the GNF, the sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of LERRs, including utility relocations, in excess of 10 percent of the total costs of construction of the GNFs.

d. Provide, operate, and maintain, at no cost to the government, the local service facilities in a manner compatible with the project's authorized purposes and in accordance with applicable federal and state laws and regulations and any specific directions prescribed by the federal government;

e. Provide 50 percent of the excess cost of O&M of the project over that cost, which the federal government determines would be incurred for O&M if the project had a depth of 50 feet;

f. Give the federal government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-federal sponsor owns or controls for access to the project for the purpose of completing, inspecting, operating and maintaining the GNFs;

g. Hold and save the U.S. free from all damages arising from the construction or O&M of the project, any betterments, and the local service facilities, except for damages due to the fault or negligence of the U.S. or its contractors;

h. Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of 3 years after completion of the accounting for which such books, records, documents, and other evidence is required, to the extent and in such detail as will properly reflect total cost of construction of the project, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to state and local governments at 32 CFR, Section 33.20;

i. Perform, or ensure performance of, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601–9675, that may exist in, on, or under LERRs that the government determines to be necessary for the construction or O&M of the GNFs. However, for LERRs that the government determines to be subject to the navigation servitude, only the government shall perform such investigation unless the federal government provides the non-federal sponsor with

prior specific written direction, in which case the non-federal sponsor shall perform such investigations in accordance with such written direction;

j. Assume complete financial responsibility, as between the federal government and the sponsor, for all necessary cleanup and response costs of any hazardous substances regulated under CERCLA that are located in, on, or under LERRs that the federal government determines to be necessary for the construction or operation and maintenance of the project;

k. To the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;

l. Comply with Section 221 of the Flood Control Act of 1970, as amended (42 USC 1962d-5b), and Section 101(e) of the WRDA 1986, as amended (33 USC 2211(e)), which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element;

m. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC 4601-4655), and the Uniform Regulations contained in 49 CFR 24, in acquiring lands, easements, and rights-of-way, necessary for construction, O&M of the project including those necessary for relocations, the borrowing of material, or the placement of dredged or excavated material; and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;

n. Comply with all applicable federal and state laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964 (42 USC 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable federal labor standards requirements including, but not limited to, 40 USC 3141-3148 and 40 USC 3701-3708 (revising, codifying and enacting without substantive changes the provision of the Davis-Bacon Act (formerly 40 USC 276a et seq.), the Contract Work Hours and Safety Standards Act (formerly 40 USC 327 et seq.), and the Copeland Anti-Kickback Act (formerly 40 USC 276c);

o. Provide the non-federal share of that portion of the costs of mitigation and data recovery activities associated with historic preservation that are in excess of 1 percent of the total amount authorized to be appropriated for the project; and

p. Not use funds from other federal programs throughout, including any non-federal contribution required as a matching share, therefore, to meet any of the sponsor's obligations for the project costs unless the federal agency providing the federal portion of such funds verifies in writing that such funds are authorized to be used to carry out the project.

12. The recommendation contained herein reflects the information available at this time and current departmental policies governing formulation of individual projects. It does not reflect program and budgeting priorities inherent in the formulation of a national civil works construction program or the perspective of higher review levels within the executive branch. Consequently, the recommendation may be modified before it is transmitted to Congress as a proposal for authorization and implementation funding. However, prior to transmittal to Congress, the State of Texas, the Brownsville Navigation District, interested federal agencies, and other parties will be advised of any significant modifications and will be afforded an opportunity to comment further.

THOMAS P. BOSTICK
Lieutenant General, USA
Chief of Engineers

BRAZOS ISLAND HARBOR CHANNEL IMPROVEMENT PROJECT

Final Integrated Feasibility Report and Environmental Assessment

Civil Works Review Board

Presented by:
Colonel Richard P. Pannell
Commander, Galveston District

25 June 2014

PORT OF BROWNSVILLE
•WORLD CLASS•

U.S. ARMY

PRESENTATION OUTLINE

- Purpose of the Briefing
- Vertical Team
- Bottom Line Up Front and the National Investment
- Background (Authorities and Study Purpose)
- Existing Conditions
- Future-Without Project Conditions
- Plan Formulation
- Recommended Plan
- Compliance
- Summary of Recommended Plan
- Questions

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PURPOSE OF BRIEFING

- **Present the Recommended Plan for the Brazos Island Harbor (BIH) Channel Improvement Project**
- **Obtain CWRB approval to release the report for State and Agency Review**
- **Provide schedule to achieve the Chief of Engineers' Report**

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BRAZOS ISLAND HARBOR PROJECT VERTICAL TEAM

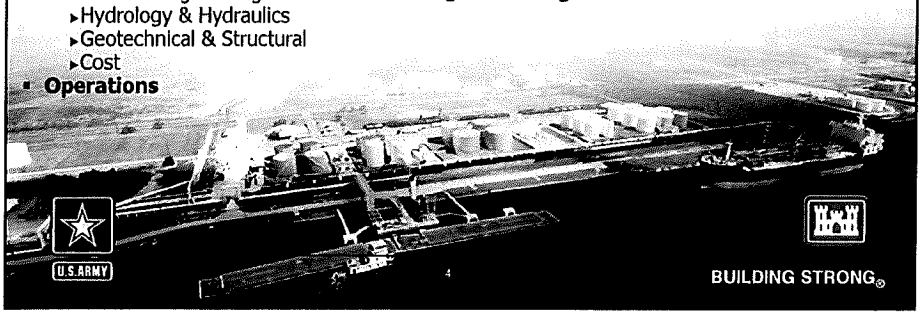
NON FEDERAL SPONSOR:
Brownsville Navigation District as representative of the Port of Brownsville

GALVESTON DISTRICT:

- **Project Management**
- **Regional Planning and Environmental Center**
  - Plan Formulation
  - Economics
  - Environmental Analysis
- **Real Estate**
- **Office of Counsel**
- **Engineering**
  - General Engineering
  - Hydrology & Hydraulics
  - Geotechnical & Structural
  - Cost
- **Operations**

REVIEW TEAMS:

- **Agency Technical Review Teams**
- **Independent External Peer Review**
- **Engineer Research and Development Center**
- **Deep Draft Navigation Center of Expertise**
- **Cost Engineering Mandatory Center of Expertise**
- **Office of Water Project Review**
- **Southwestern Division**
- **Southwestern Division Regional Integration Team**



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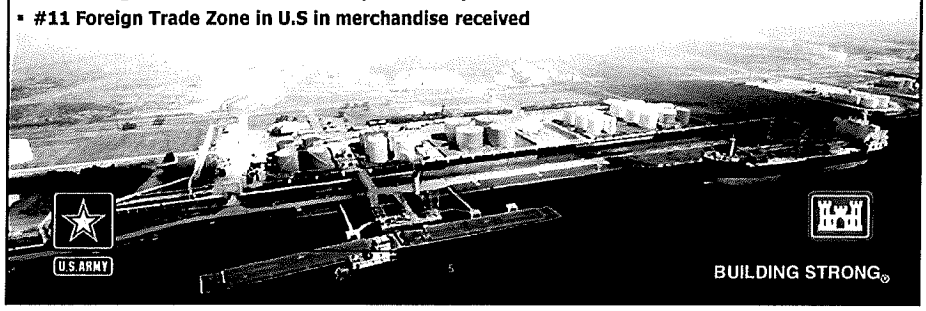
BRAZOS ISLAND HARBOR

BOTTOM LINE UP FRONT: AN INVESTMENT IN THE NATIONAL INTEREST

RECOMMENDED PLAN	BCR: 6.4* (PL 109-13 Section 6009)	BCR: 1.5* (Traditional)
▪ 52-foot deepening	▪ $252.0 M Total Project Cost	▪ $252.0 M Total Project Cost
▪ No widening	▪ $76.6 M Net Annual Benefits	▪ $6.4 M Net Annual Benefits
▪ No environmental mitigation required		* 3.5%

- Home to one of the largest Oil Drilling Platform Fabrication and Repair facilities in U.S. (Keppel AmFELS)
- Home to 4 MARAD-certified and 3 U.S. Navy-approved ship breakers
- Leader in trade of petroleum products and steel slab and steel coils
- #1 Foreign Trade Zone in U.S. in export activity
- #11 Foreign Trade Zone in U.S in merchandise received



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LEGISLATIVE AUTHORITIES

Main Study Authority: Resolution of the Committee on Public Works, U.S. House of Representatives dated May 5, 1966

Additional Authority: Public Law 109-13 Section 6009 of the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005 – Offshore Oil and Gas Fabrication Ports in September 2012

HISTORY OF INLAND CHANNEL AUTHORIZATIONS AND DEPTHS

1880: 10 feet
1919: 18 feet
1937: 28 feet
1945: 32 feet
1950: 36 feet
1986: 42 feet

Road to Brownsville Dock circa: 1920 courtesy of Port of Brownsville

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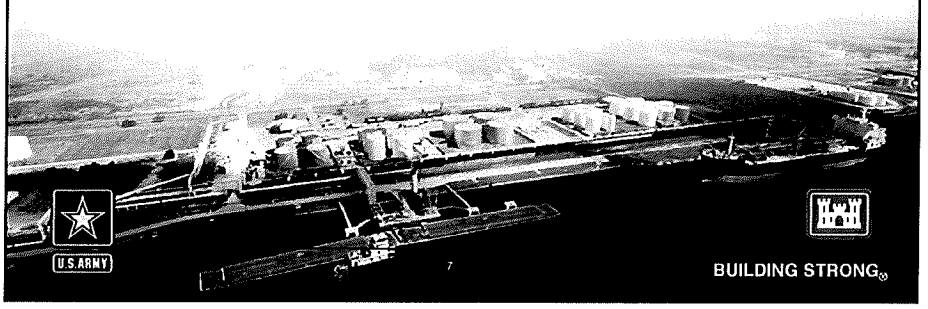
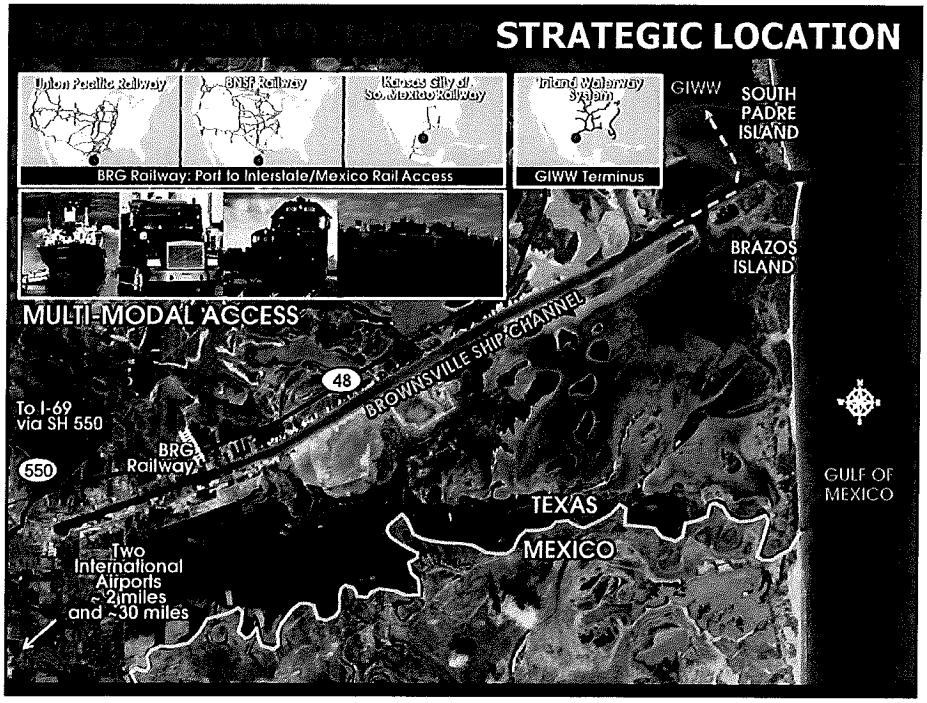
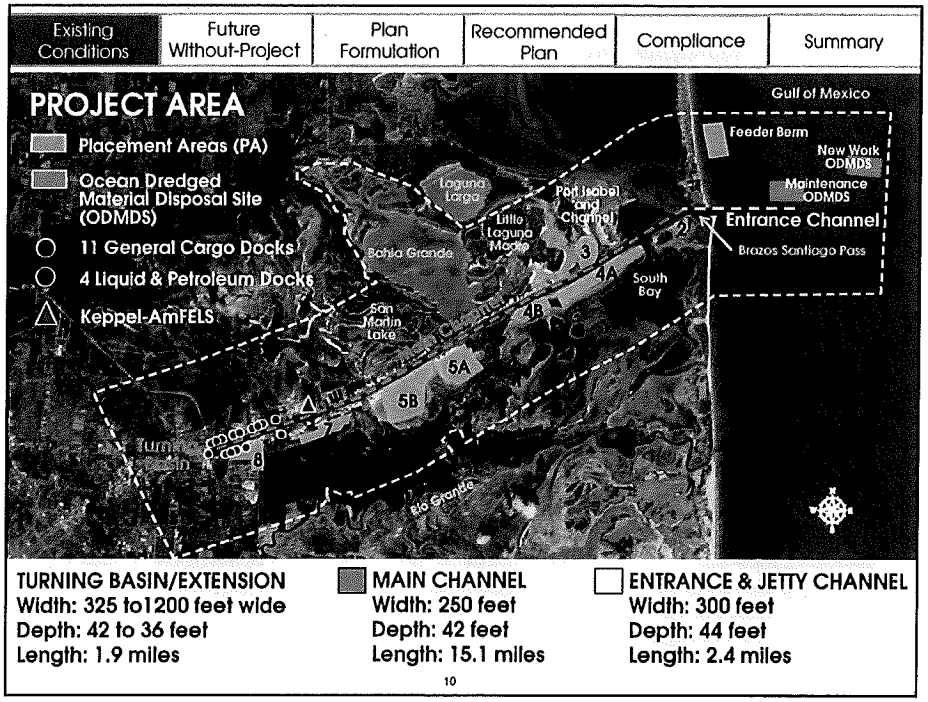
STUDY PURPOSE

Investigate the feasibility of navigation improvements at Brazos Island Harbor (BIH)





Existing Conditions
Future Without-Project
Plan Formulation
Recommended Plan
Compliance
Summary
ECONOMIC
▪ #1 U.S Foreign Trade Zone for exports
CARGO
SPECIALTY
KEPPEL AMFELS
▪ Petroleum Products
▪ Iron Ore, Iron & Steel Products
▪ Dry Bulk & Break-Bulk Products
▪ Rig Fabrication
▪ Shipbreaking
KEPPEL AMFELS
ESCO MARINE
TRANSMONTAIGNE OPERATING CO., LP
TRANSFORMA
INTERNATIONAL SHIPBREAKING LIMITED, LCC
TRANSMONTAIGNE OPERATING CO., LP

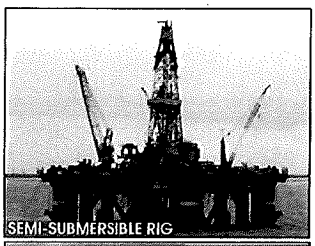

Existing Conditions
Future Without-Project
Plan Formulation
Recommended Plan
Compliance
Summary
PROJECT AREA
Placement Areas (PA)
Ocean Dredged Material Disposal Site (ODMDS)
11 General Cargo Docks
4 Liquid & Petroleum Docks
Keppel-AmFELS
Gulf of Mexico
Feeder Berm
New Work ODMDS
Maintenance ODMDS
Entrance Channel
Brazos Santiago Pass
Laguna Larga
Port Isabel and Channel
Little Laguna Madre
Bahia Grande
South Bay
San Martin Lake
Rio Grande
TURNING BASIN/EXTENSION
Width: 325 to1200 feet wide
Depth: 42 to 36 feet
Length: 1.9 miles
MAIN CHANNEL
Width: 250 feet
Depth: 42 feet
Length: 15.1 miles
ENTRANCE & JETTY CHANNEL
Width: 300 feet
Depth: 44 feet
Length: 2.4 miles
10

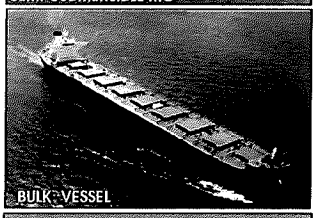
PROBLEMS

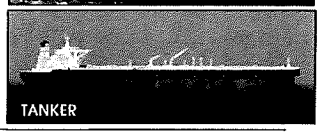
- Current channel dimensions result in inefficient navigational practices
- Limited ability for oil drilling rig fabrication, maintenance, and repair due to current channel dimensions

OPPORTUNITIES

- Increasing navigational efficiency of deep-draft vessels
- Increasing accommodation of offshore rigs for maintenance, repair, and fabrication of new rigs


SEMI-SUBMERSIBLE RIG


BULK VESSEL


TANKER

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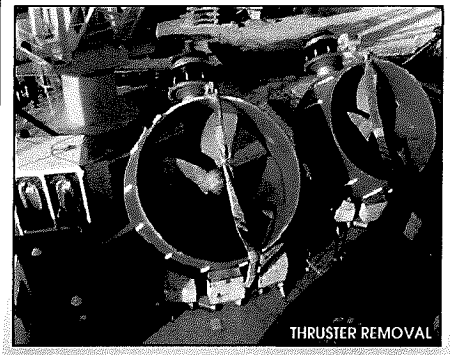

THRUSTER REMOVAL

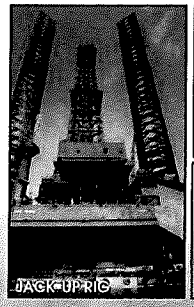
THRUSTER REMOVAL/ REATTACHMENT

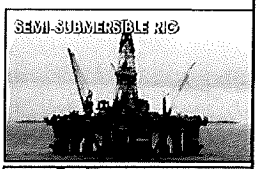
- **Offshore removal/reattachment would cost up to $15 million per rig**
- **Up to 8 thrusters per rig**
- **Requires a week on average to remove/reattach thrusters per rig**

Existing Conditions	Future-Without Project	Plan Formulation	Recommended Plan	Compliance	Summary

Future Without-Project Conditions

- As vessels increase in draft, restrictive depth would prevent vessels from entering with full loads or prevent larger vessels and/or rigs from even using the waterway
- Semi-submersible rigs will need to remove thrusters offshore to enter channel
- Maintenance dredging performed as in past
- Armoring may be needed to protect PAs near Brazos Santiago Pass due to relative sea-level rise





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Existing Conditions	Future Without-Project	Plan Formulation	Recommended Plan	Compliance	Summary

OBJECTIVE

- Increase navigational efficiency of cargo vessels and offshore rigs using the channel during the 50-year period of analysis

CONSTRAINTS

- Minimize impacts to designated critical habitat for threatened and endangered species in the study area
- Minimize impacts to threatened and endangered species in the study area
- Minimize impacts to cultural resources listed on or eligible for the National Register of Historic Places (defined as historic properties)
- Develop alternatives within Coastal Barrier Resources Act (CBRA) guidelines, which prohibit new Federal expenditures or financial assistance within any CBRA unit (with the exception of improvements to existing navigation channels, disposal areas, and related improvements)
- Limit channel traffic to single lane/one way only

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Existing Conditions	Future Without-Project	Plan Formulation	Recommended Plan	Compliance	Summary

MEASURES

- **No-Action**
- **Non-Structural:**
  - **Use of another port**
  - **Alternative modes of commodity transport**
- **Structural**
  - **Deepening and/or widening of channel**
  - **Relocation of the turning basin**
  - **Widen using shelves for rig movements**

Existing Conditions	Future Without-Project	Plan Formulation	Recommended Plan	Compliance	Summary

INITIAL ARRAY	EVALUATION ARRAY	FINAL ARRAY
QUALITATIVE FACTORS ▪ Navigation Improvement ▪ Environmental/Cultural resources concerns ▪ Potential for cost increases (construction & O&M) ▪ Public concerns	**COSTS, BENEFITS, BCR** ▪ Analyses of world fleet indicated wider channel needs ▪ Rough Order of Magnitude Costs ▪ 25% Cost Contingency **QUALITATIVE FACTORS** ▪ Navigation Improvements ▪ Environmental/Cultural resources & HTRW concerns ▪ Real Estate Issues	**COSTS, BENEFITS, BCR** ▪ Greater detail in costs ▪ More Inputs and Iterations of HarborSym Model ▪ 20% Cost Contingency (Real Estate – 25%) ▪ O&M Costs included
ONLY STRUCTURAL MEASURES CARRIED FORWARD	**DEEPENING & WIDENING ALTERNATIVES CARRIED FORWARD**	**SHIP SIMULATION SUPPORTS CHANNEL FUNCTIONALITY** **VALUE ENGINEERING STUDY REDUCES DREDGING IN TURNING BASIN AREA** **GEOMETRIC ANALYSIS OF RIG MOVEMENTS SUPPORTS DEEPENING IF THRUSTERS IN PLACE**

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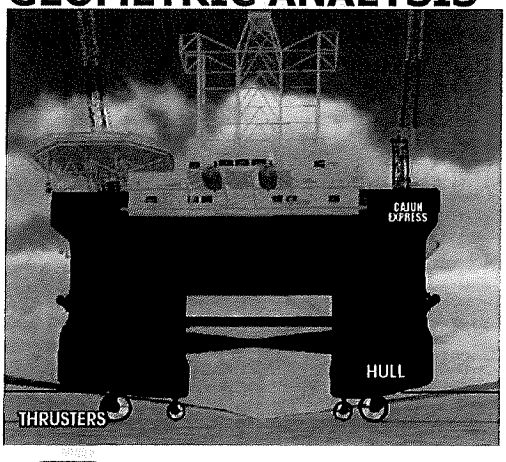
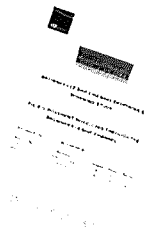
GEOMETRIC ANALYSIS





CAJUN EXPRESS DRILL RIG MODEL

- **Breadth of 226 feet**
- **Hull draft: 27.89 feet**
- **Thruster depth: 21.56 feet below the hull**
- **The total draft depth: 49.45 feet**

SCREENING OF FINAL ARRAY

(Cost in $1,000s, October 2012 price levels, 3.75% Interest Rate)

ALT. #	DESCRIPTION	TOTAL ANNUAL COSTS	AVERAGE ANNUAL BENEFITS	BCR	NET EXCESS BENEFITS
F-1a	Deepen from 42 to 45 feet	4,932.0	9,717.2	2.0	4,785.2
F-1b	Deepen from 42 to 48 feet	6,670.5	14,204.6	2.1	7,534.1
F-1c	Deepen from42 to 50 feet	8,861.4	17,380.8	2.0	8,519.5
F-1d	Deepen from 42 to 52 feet	10,586.4	19,873.8	1.9	9,287.4
F-2a	Deepen from 42 to 45 feet/widen from 250 to 300 feet	8,067.3	10,843.1	1.3	2,775.9
F-2b	Deepen from 42 to 48 feet/widen from 250 to 300 feet	11,563.2	13,760.4	1.2	2,197.3
F-2c	Deepen from 42 to 50 feet/widen from 250 to 300 feet	13,867.0	17,939.3	1.3	4,072.2
F-2d	Deepen from 42 to 52 feet/widen from 250 to 300 feet	16,342.2	20,440.4	1.3	4,098.1
F-3a	Deepen from 42 to 45 feet/widen from 250 to 350 feet	14,063.9	8,958.2	0.6	-5,105.7
F-3b	Deepen from 42 to 48 feet/widen from 250 to 350 feet	17,979.5	14,140.2	0.8	-3,839.3
F-3c	Deepen from 42 to 50 feet/widen from 250 to 350 feet	20,342.4	16,687.0	0.8	-3,655.4
F-3d	Deepen from 42 to 52 feet/widen from 250 to 350 feet	23,616.5	19,896.1	0.8	-3,720.4

NED ANALYSIS OF DEEPENING ONLY

(Cost in $1,000s, October 2012 price levels, 3.75% interest rate)

ALT. NO.	DESCRIPTION	AVERAGE ANNUAL COSTS	AVERAGE ANNUAL BENEFITS	BCR	NET EXCESS BENEFITS
	Deepen from 42 to 43 feet	3,366.6	3,239.1	1.0	-127.5
	Deepen from 42 to 44 feet	4,148.0	5,795.9	1.4	1,647.8
F-1a	Deepen from 42 to 45 feet	4,932.0	9,717.2	2.0	4,785.2
	Deepen from 42 to 46 feet	5,509.0	11,213.0	2.0	5,704.0
	Deepen from 42 to 47 feet	6,088.5	12,503.7	2.1	6,415.2
F-1b	Deepen from 42 to 48 feet	6,670.5	14,204.6	2.1	7,534.1
	Deepen from 42 to 49 feet	7,761.4	15,792.7	2.0	8,031.4
F-1c	Deepen from 42 to 50 feet	8,861.4	17,380.8	2.0	8,519.5
	Deepen from 42 to 51 feet	9,721.0	18,627.3	2.0	8,906.3
F-1d	Deepen from 42 to 52 feet	10,586.4	19,873.8	1.9	9,287.4

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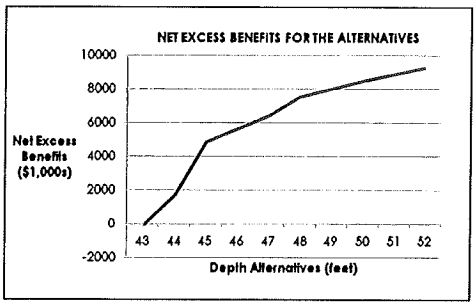
CATEGORICAL EXEMPTION

- **Based on the sponsor's financial constraint due to limited resources**
- **Per ER 1105-2-100, E-3.b(5), net benefits are increasing as the constraint is reached**
- **Additional deepening beyond 52 feet was not evaluated so the NED plan could not be identified**



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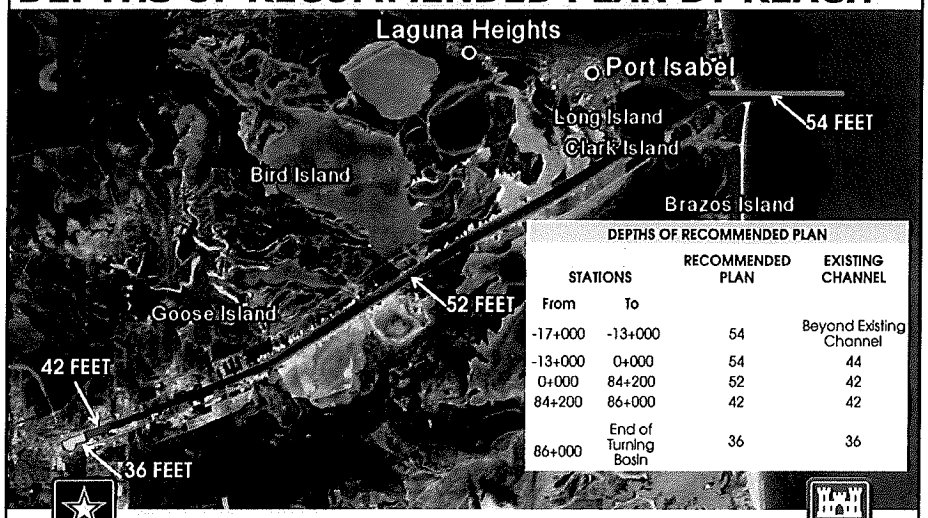
Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary

DEPTHS OF RECOMMENDED PLAN BY REACH



DEPTHS OF RECOMMENDED PLAN

STATIONS From	STATIONS To	RECOMMENDED PLAN	EXISTING CHANNEL
-17+000	-13+000	54	Beyond Existing Channel
-13+000	0+000	54	44
0+000	84+200	52	42
84+200	86+000	42	42
86+000	End of Turning Basin	36	36

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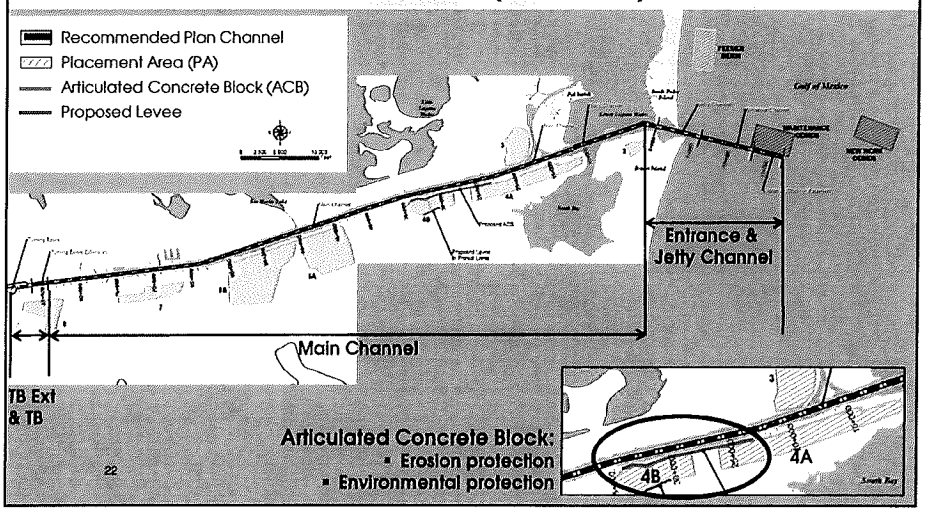
Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary

DREDGED MATERIAL MANAGEMENT PLAN

- **2 Existing Ocean Dredged Material Disposal Sites (ODMDS)**
- **7 Existing Upland Confined PAs (PA2, 4A, 4B, 5A, 5B, 7, and 8)**
- **Nearshore Feeder Berm for South Padre Island (Beneficial Use)**



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NEW WORK QUANTITIES

CHANNEL STATIONS		PLACEMENT AREA (PA)	CURRENT PA ACREAGE	DREDGING QUANTITY (CY)
-17+000	0+000	New Work ODMDS	350	2,066,000
0+000	7+000	2	71	937,000
7+000	25+000	4B	243	2,689,000
25+000	50+000	5A	704	3,612,000
50+000	70+000	5B	1020	2,599,000
70+000	82+000	7	257	1,804,000
82+000	89+500	8	288	386,000
			Total CY	14,091,000

Dredging quantities may not total due to rounding

Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary

O&M QUANTITIES

CHANNEL STATIONS		PLACEMENT AREA (PA)	DREDGE CYCLE (YR)	NUMBER OF CYCLES IN 50 YEARS	DREDGING QUANTITY (CY/CYCLE)	TOTAL O&M QUANTITY IN 50 YEARS (CY)
-17+000	0+000	Feeder Berm *	5	10	2,353,000	23,532,000
0+000	11+000	Feeder Berm *	3	16	485,000	7,757,000
11+000	28+000	4A	4	12	736,000	8,832,000
28+000	34+000	4B	4	12	172,000	2,066,000
34+000	50+000	5A	4	12	494,000	5,929,000
50+000	65+000	5B	5	10	718,000	7,179,000
65+000	79+000	7	6	8	592,000	4,735,000
79+000	89+500	8	7	7	213,000	1,489,000
				TOTAL CY		61,518,000

* Beneficial Use of Dredged Material **Note:** Dredging quantities may not total due to rounding

COST APPORTIONMENT

(October 2013 price level; 3.5% interest rate)

	FEDERAL COSTS	NON-FEDERAL COSTS
Construction Dredging and PAs	$97,647,000	$72,174,000
Lands	11,000	5,000
Engineering & Design	10,860,000	10,860,000
Construction Management	7,493,000	5,539,000
Aids to Navigation - Channel Markers	108,000	---
Berthing and Dock Modifications	---	47,257,000
Total First Cost ($251,952,000)	$116,118,000	$135,834,000
Additional Cash Contribution (10% of GNF)	---	20,459,000
Total Costs	$116,118,000	$156,293,000

ECONOMIC SUMMARY

(October 2013 price level; 3.5% interest rate, costs in $1,000s)

	TRADITIONAL BENEFITS	BENEFITS WITH PL 109-13 (SECTION 6009)
Investment Costs		
Total Project Construction Cost	$251,952	$251,952
Interest During Construction Costs	10,563	10,563
Total Investment Cost	$262,515	$262,515
Average Annual Costs		
Interest and Amortization of Initial Investment	11,192	11,192
Incremental O&M	2,971	2,971
Total Average Annual Costs	$14,163	$14,163
Average Annual Benefits	20,539	90,804
Net Annual Benefits	6,376	76,641
Benefit-to-Cost Ratio	1.5	6.4

ENVIRONMENTAL COMPLIANCE

- ✓ **Draft Integrated Feasibility Report: Environmental Assessment (DIFR-EA) prepared and coordinated**
- ✓ **USEPA comments on ODMDS report resolved**
- ✓ **Endangered Species Act consultation complete**
- ✓ **Section 401 Water Quality Certification received**
- ✓ **Coastal Zone Consistency Determination received**
- ✓ **Cultural Resources coordination complete**
- ✓ **Biological Opinion received and accepted**

REVIEWS

- ✓ **Feasibility Scoping Meeting: May 2008**
- ✓ **Value Engineering Study: October 2011**
- ✓ **TSP/AFB Milestone Meeting: August 2013**
- ✓ **Draft Report DQC/Legal Certification: November 2013**
- ✓ **Draft Report IEPR: November 2013 – March 2014**
- ✓ **Draft Report ATR: December 2013 – February 2014**
- ✓ **Draft Report Policy/Public Review: December 2013 – January 2014**
- ✓ **Cost Certification: February 2014**
- ✓ **Agency Decision Milestone Meeting: March 2014**
- ✓ **Final Report DQC: April 2014**
- ✓ **Final Report ATR: April - May 2014**
- ✓ **DE Transmittal Notice/Legal Certification: May 2014**
- ✓ **DDN-PCX Review/Verification of P.L. 109-13 Section 6009 Use: June 2014**

POLICY REVIEW COMPLIANCE

- **Significant HQ Comments**
  - **Future without-project condition**
    - **Operating practice of semi-submersibles**
    - **Calculation of costs for thruster removal**
  - **Incremental justification of depth by reach required**
  - **Categorical exemption addressed in report**
  - **Characterizing environmental effects in report**
- **Report revised to include all requested additions**
- **Comments resolved**

Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary

AGENCY TECHNICAL REVIEW

SIGNIFICANT COMMENT: ECONOMIC ANALYSIS OF RIGS

CONCERN:

- **What is the percent of benefits from rigs?**
- **Is there any uncertainty to the rig fleet behavior?**
- **Rig benefit could be a large portion of benefits, where any risk and uncertainty could change the outcome.**

RESOLUTION:

- **A sensitivity analysis regarding the assumption of rig behavior was included. Concern Resolved.**
- **All 13 ATR comments were resolved.**

INDEPENDENT EXTERNAL PEER REVIEW

(13 Total IEPR Comments Received; 2 Comments were not Adopted)

COMMENT: Mexican Trade-Related Benefits

CONCERN: The benefits may be overestimated because they include pass-through commodities whose consumer reside in Mexico rather than the United States

RESOLUTION: Not adopted. The Federal interest in national economic development (NED) includes a navigation provision to support cost-efficient trade between the U.S. and the rest of the world. Furthermore, commerce between the U.S., Mexico and Canada is fostered by the NAFTA and contributes to the NED and the U.S.

Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary

INDEPENDENT EXTERNAL PEER REVIEW

(13 Total IEPR Comments Received; 2 Comments were not Adopted)

COMMENT: Channel Width Justification

CONCERN: The rationale for recommending a 52-foot-deep channel for the TSP wider than 250 feet above station 64+000 has not been documented, and the difference in project costs for deepening the channel areas beyond 250 feet has not been provided

RESOLUTION: Not adopted because not required to justify existing project features, especially when added for safety reasons, which is the case for these channel widths

Existing Conditions	Future Without-Project	Plan Formulation	Recommended Plan	Compliance	Summary

PUBLIC INVOLVEMENT

- **Scoping meetings conducted**
- **DIFR-EA published December 6, 2013 for a 30-day public review period**
- **Notice of Availability (~250) sent to local media, neighborhood and business organizations, local, state, and Federal governments/agencies, environmental organizations and recognized Indian tribes**
- **DIFR-EA and supporting technical reports posted on Galveston District website**

Public and Agency Comments

- **No controversial issues or concerns**
- **All comments were supportive in nature and required no changes to the report**

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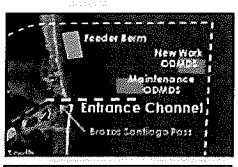
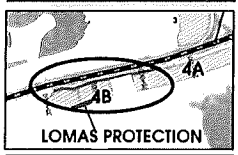
Existing Conditions	Future Without-Project	Plan Formulation	Recommended Plan	Compliance	Summary

ENVIRONMENTAL OPERATING PRINCIPLES





Foster Sustainability as a Way of Life
Nearshore feeder berm for maintenance material routinely replenishes sediment in the littoral system

Proactively Consider Environmental Consequences
Use of existing placement area (PA) footprints; important habitat shielded by a PA levee extension

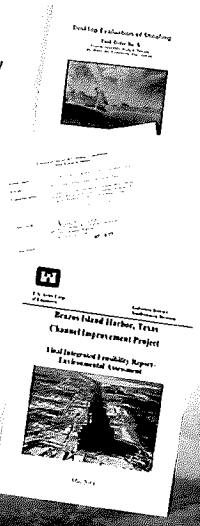
Create Mutually Supporting Solutions
Incorporates recommendations/requirements from USFWS & NMFS to avoid/minimize impacts to threatened & endangered species

Accept Responsibility and Accountability
Fully complies with legal and policy requirements to consider the impact on the human & natural environment

Employ Risk Management and a Systems Approach
Risk included in analyses and in report

Leverage Knowledge
All stakeholders, interest groups and agencies engaged to develop an environmentally sustainable project

Transparent Process
Public/agencies input solicited throughout process



RISK AND UNCERTAINTY

- **Engineering Data and Models**
  - **Relative sea-level rise**
  - **Shoaling**
  - **Hydrodynamics and storm surge**
- **Economic Data and Analysis – HarborSym Model**
  - **Built-in risk and uncertainty with use of Monte Carlo system**
  - **Economic sensitivities of assumptions and inputs**
    - **Growth rates**
    - **Fleet distribution**
    - **Thruster removal cost**
- **Project Cost and Schedule Risk Analysis through Cost MCX**

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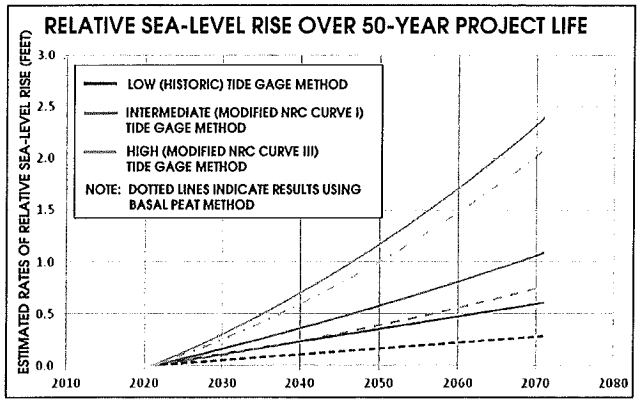
Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary



RELATIVE SEA-LEVEL RISE

Estimates of Future Relative Sea Level Rise (2021-2071)

Method	Low (ft/cm)	Intermediate (ft/cm)	High (ft/cm)
Tide Gage	.628 (19.15)	1.064 (32.43)	2.445 (74.52)
Basal Peat	.287 (8.75)	.723 (22.03)	2.104 (64.12)

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MEAN LOWER LOW WATER CONVERSION

- **Datum recently converted from Mean Low Tide (MLT) to Mean Lower Low Water (MLLW) for consistency with other USACE Districts**
- **MLLW datum used for all quantity calculations during plan formulation**
- **For BIH conversion, on average, MLT/MLLW difference is +0.31 foot**
- **Because dredges are incapable of such dredging accuracy, it would have no effect on dredging quantities**
- **Study addresses MLT as equal to MLLW**

STRATEGIC CAMPAIGN PLAN

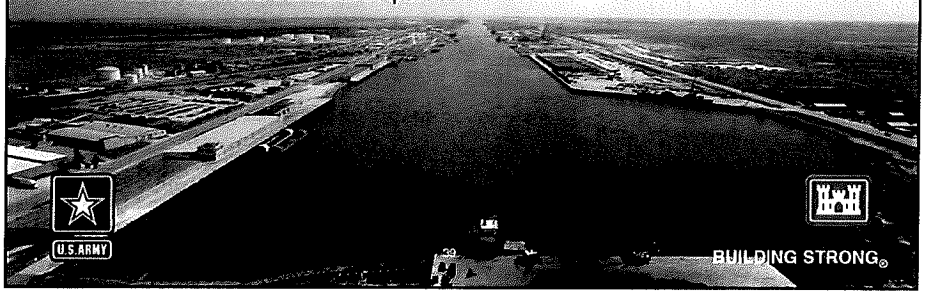
GOAL 2: Transform Civil Works

Deliver enduring and essential water resource solutions, utilizing effective transformation strategies.

- Direct and indirect effects on the environment avoided by changes in project design
- Dredged material placement plans analyzed to beneficially use material by placement in Feeder Berm
- Developed plans over long-term, 50-year period of analysis
- Risk analyses conducted throughout study
- Independent review of project documents and analyses performed internally and externally

SUMMARY OF RECOMMENDED PLAN

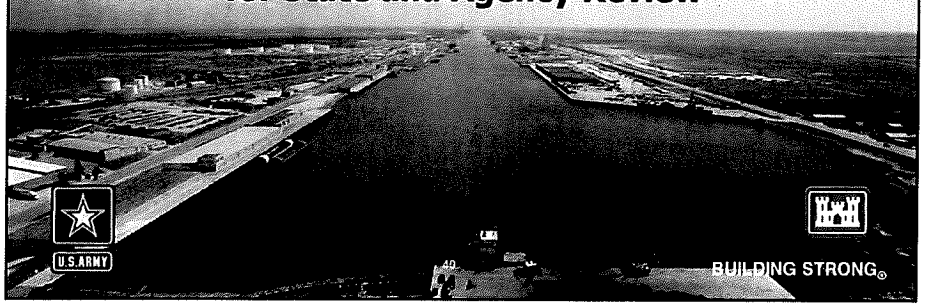
- **Channel deepening to 52 feet MLLW**
- **No change for existing channel widths**
- **No environmental mitigation required**
- **Total project first cost of $252.0 M**
- **BCR 6.4 to 1 at 3.5% (Public Law 109-13 Section 6009)**
  - **Total net annual benefits of $76.6 M**
- **BCR 1.5 to 1 at 3.5%**
  - **Total net annual benefits of $6.4 M**



Existing Conditions | Future Without-Project | Plan Formulation | Recommended Plan | Compliance | Summary

RECOMMENDATION

Recommend the Civil Works Review Board approve the release of the Brazos Island Harbor Integrated Feasibility Report and Environmental Assessment for State and Agency Review

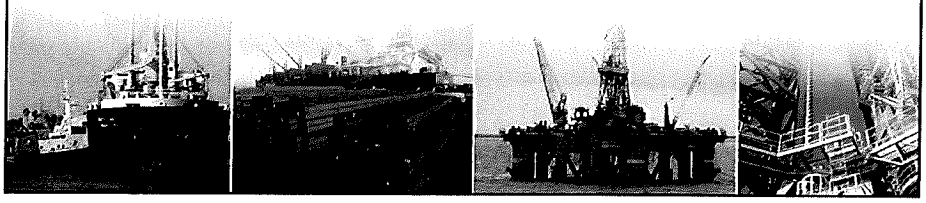


Existing Conditions	Future Without-Project	Plan Formulation	Recommended Plan	Compliance	Summary

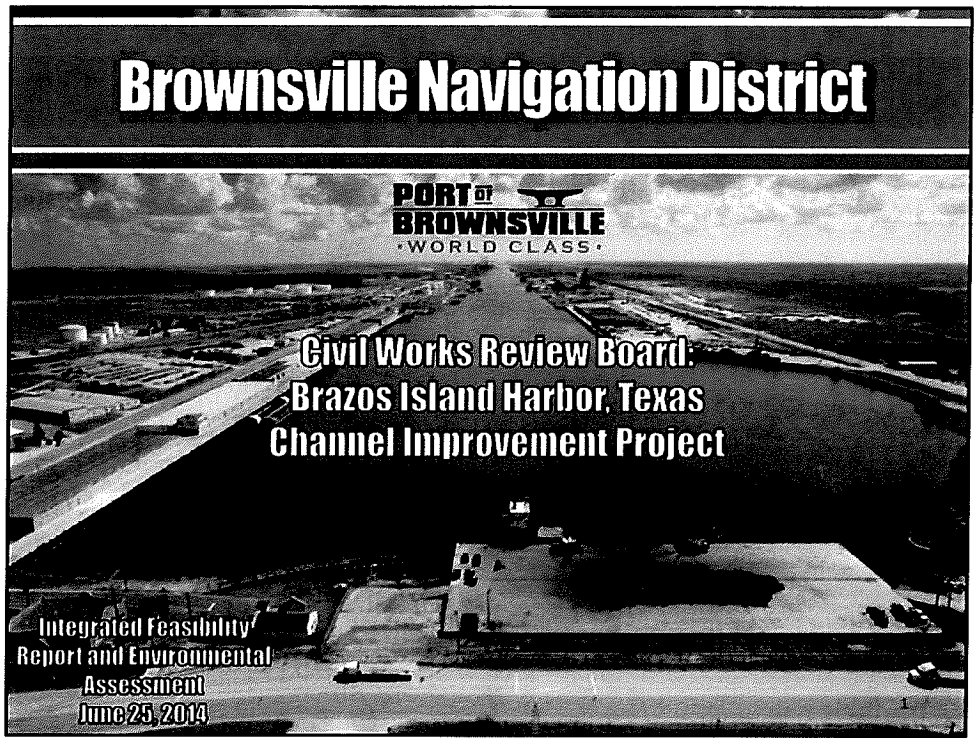
FUTURE TIMELINE

CWRB APPROVAL	30 DAY STATE & AGENCY REVIEW	SIGNED CHIEF OF ENGINEER'S REPORT	SUBMITTED TO ASA (CW) FOR REVIEW	PRE-CONSTRUCTION ENGINEERING & DESIGN	CONSTRUCTION
June 2014	June to August 2014	September 2014	September 2014	**October 2018 to **September 2020	October 2020 to September 2024

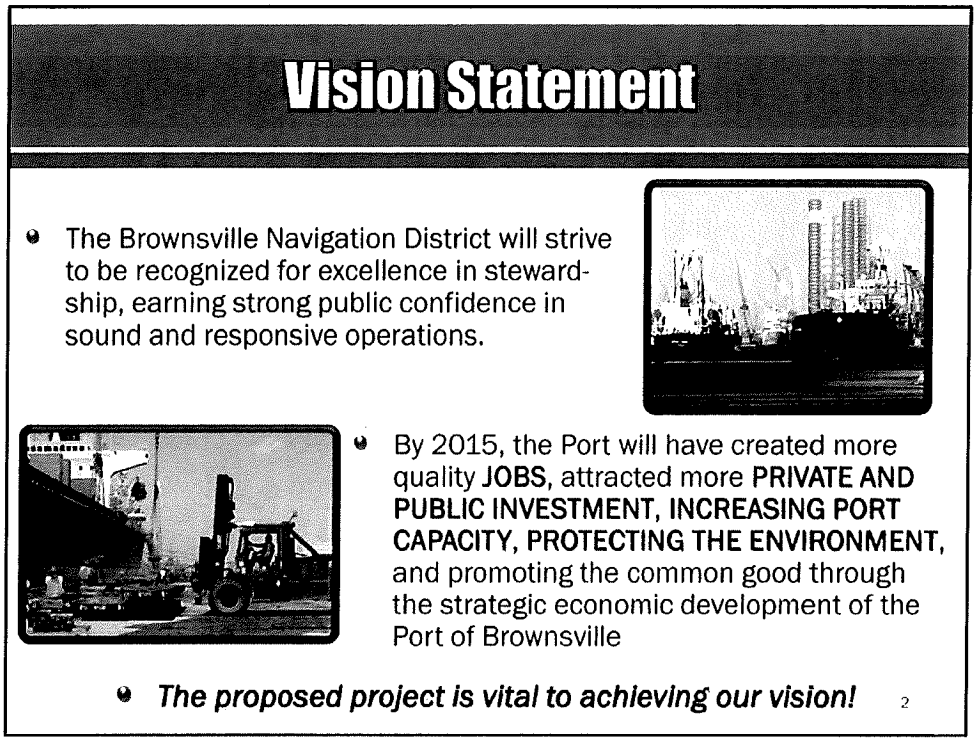
** According to budget guidance PED cannot be initiated until the project is authorized
** Passing of the next WRDA is assumed to be in 2016
** Earliest we can budget for is FY 2018



QUESTIONS?

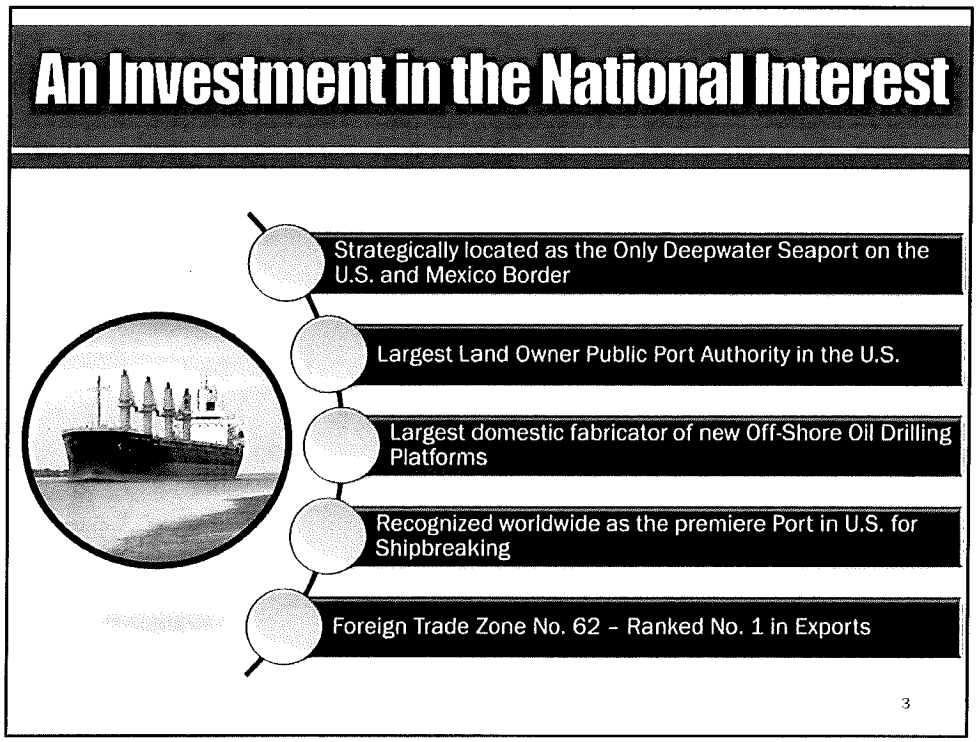


Good morning. Major General Peabody, members of the Civil Works Review Board, Col. Muraski, Col. Pannell and staffs, please let me express our appreciation for the opportunity to participate in this meeting and present on behalf of the Port of Brownsville. With me today is Mr. Ralph Cowen, Chairman of the Board of the Brownsville Navigation District Board of Canal Commissioners, Mr. Ariel Chavez, Director of Engineering Services for the Port of Brownsville, and Mr. Glenn LeMunyon, Consultant to the Port of Brownsville.



The origins of the Port of Brownsville can be traced back to December 22, 1928, when the citizens of our area overwhelmingly voted to establish the Brownsville Navigation District and solidly endorsed the idea of a port near the City of Brownsville. With support from the local community, the Board of United States Army Engineers and Congress, the Port was built and opened in May 1936. In the ceremonies that proceeded the opening of the Port of Brownsville, President Franklin Roosevelt sent a letter with hearty congratulations to the citizens of Brownsville in which he penned "This, it seems to me, is an event of outstanding importance in the life of the community and one which will have a great influence in the future development of the city and the territory which it serves." With that vision of the future, the Port has been guided by the vision of creating quality jobs, attracting private and public investment, increasing port capacity and protecting the environment.

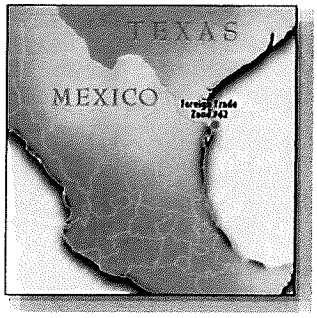
The Brazos Island Harbor Channel Improvement Project is vital to achieving our vision!



The Port of Brownsville is strategically located as the only deepwater seaport directly on the US/Mexico border. We are the largest land-owning public port authority in the country with approximately 40,000 acres of land. We actively support our countries energy interest and we are home to the largest domestic fabricator of off shore drilling platforms. The Port of Brownsville is recognized worldwide as the premiere port in the United States for Shipbreaking supporting both the US Navy's and the Maritime Administration's objective of safely and responsibly disposing of the obsolete vessel fleet.

Foreign Trade Zone No. 62

- Ranked No. 1 in the nation and No. 1 in Texas for export activities
- Ranked No. 11 out of 174 active FTZs in 2012
- Exported commodities valued at over $3 billion



Exports in 2012

	Zone	Location
1	62	Brownsville, TX
2	25	Broward County, FL
3	68	El Paso, TX
4	148	Knoxville, Tennessee
5	38	Spartanburg County, SC

- Top three commodities: Offshore Exploration and Production Platforms, Petroleum Products, and Steel

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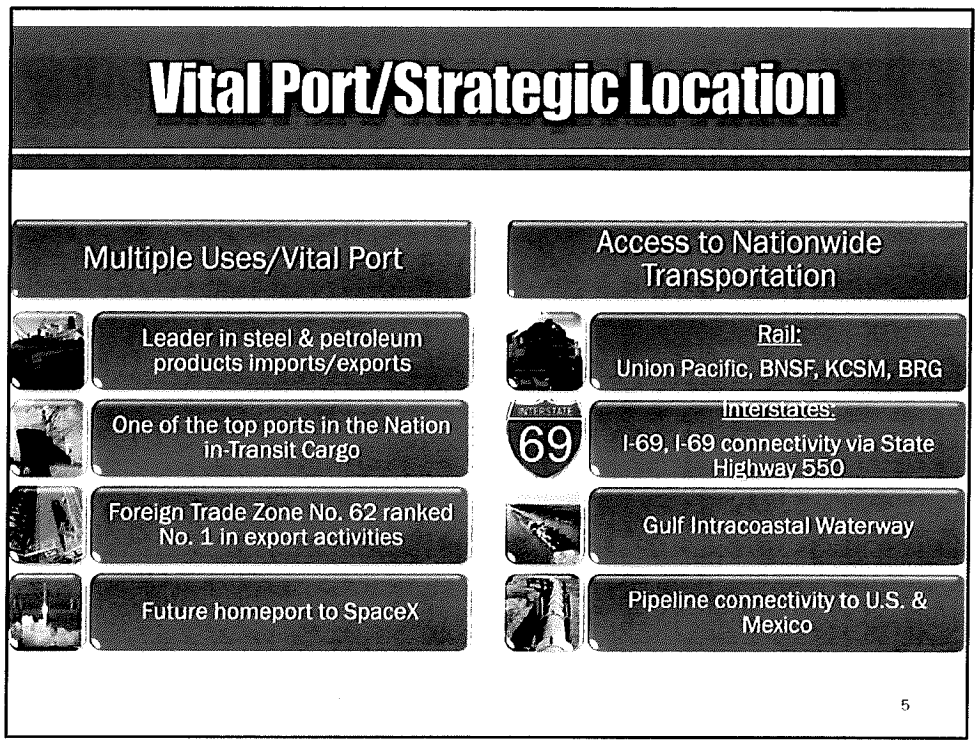
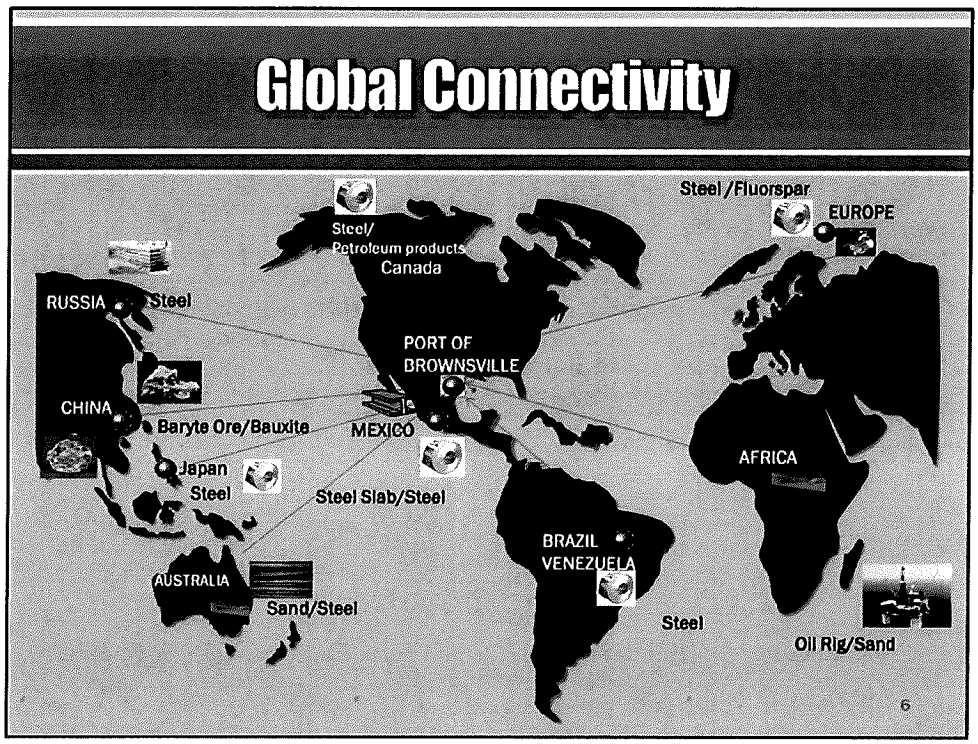
We support President Obama's National Export Initiative and earlier this year; our Foreign Trade Zone No. 62 was recognized for being ranked No. 1 in the country for value of exported commodities.



The Port of Brownsville clearly has the critical attributes to be the port of the future. It is geographically positioned in an area that will see long term domestic and international economic growth. Energy production in the Gulf of Mexico and the shale play will continue to fuel a renaissance in manufacturing and industrial development in the United States while at the same time establishing our energy independence from the rest of the world.



It also reinforces the bonds with our critical trading partners to the north and south of our borders. We continue to develop the transportation infrastructure necessary to provide a system of multimodal services that offer shippers many options for receipt and delivery of cargo worldwide. While many ports continue to grow and face the challenges of congestion and urban encroachment, the Port of Brownsville has the land mass necessary to sustain its growth well into the future.

Port of Brownsville – Economic Driver

- Located in Cameron County; ranked the poorest county in the United States with the highest poverty rate.

County Poverty Rates	
Cameron, TX	34.7
Hidalgo, TX	34.3
El Paso, TX	28.7
Bronx, NY	27.1
Philadelphia, PA	23.8

** Source: U.S. Census*

Median Household Income	
Brownsville	$32,558
Texas	$51,563
United States	$53,046

Per Capita Income	
Brownsville	$14,405
Texas	$25,809
United States	$28,051

** Source: Brownsville Economic Development Council*

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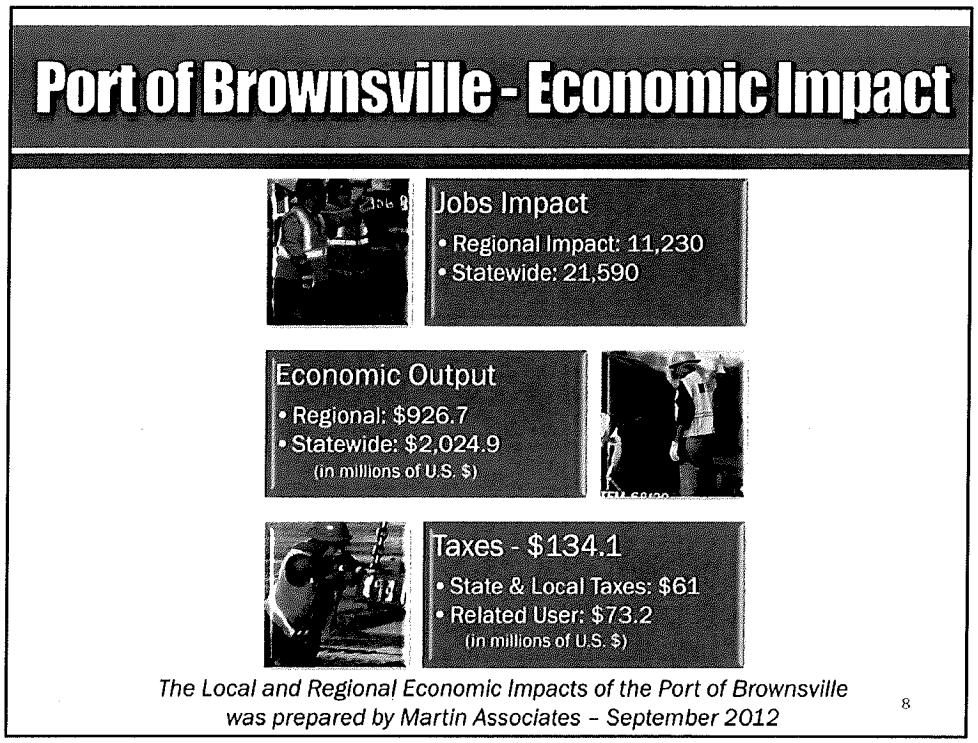
Most, if not all ports, point to the fact that they are major employment centers. They share a common objective of working to create quality jobs. The Port of Brownsville is no different. However, we approach our objective with a tremendous sense of urgency. We are located in Cameron County, one of the poorest regions of the country. We have the dubious distinction of being ranked the poorest county in the United States with the highest poverty rate. Our neighboring county to the west, Hidalgo County, is ranked number two. The per capita income for the Brownsville area is almost half that of the national per capita income.



The Port of Brownsville embraces its challenge of working diligently to create jobs that pay a living wage, of attracting industry and becoming a major economic engine.

How does the Port of Brownsville become a major economic engine? We do so by sustaining and supporting the expansion of our existing businesses.

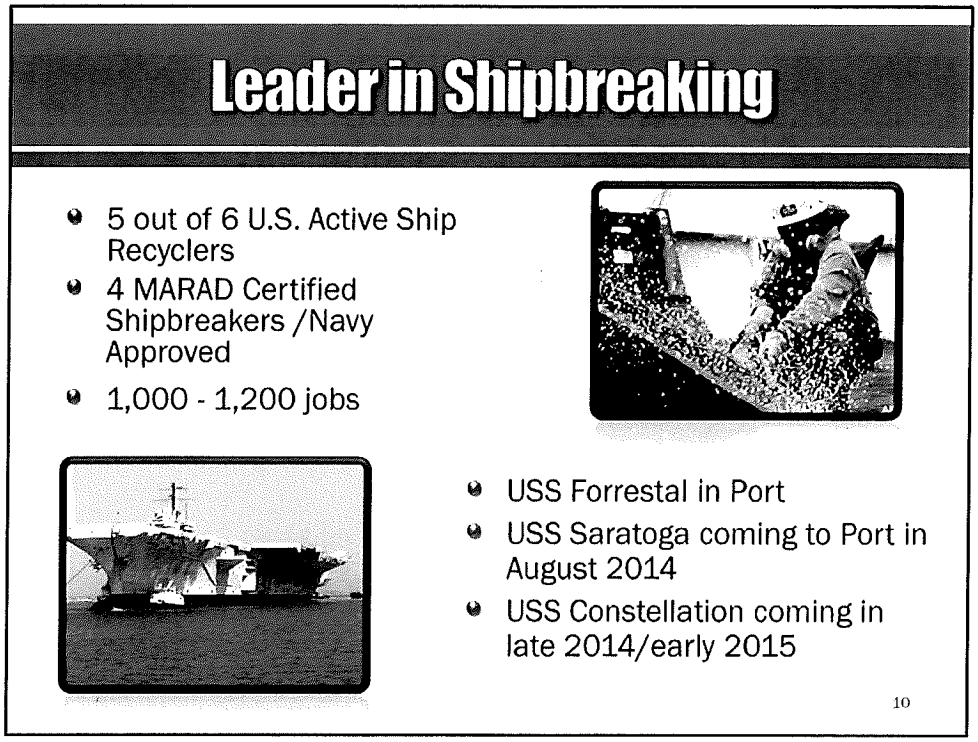
Leader in Rig Fabrication & Repair
Keppel AmFELS

- No. 1 Domestic Oil Rig Fabricator
- Strategically located to support Oil Production
- Major Employer
  - 3,500 quality jobs

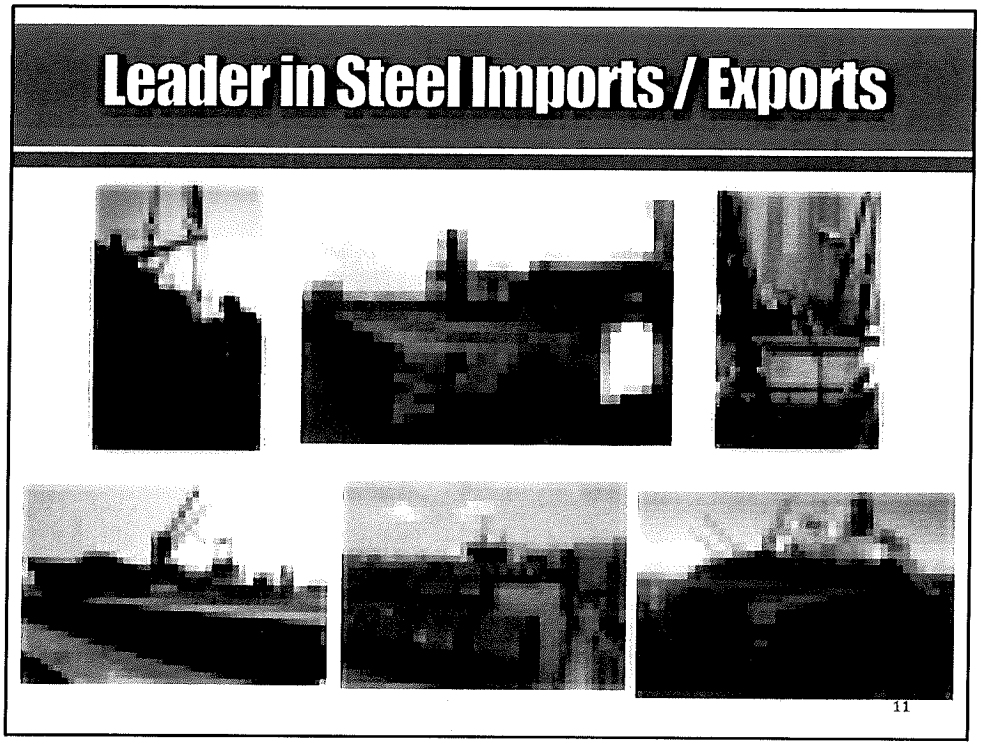
Rig Builders in the World (2001-2010)

	Jack-ups or Semi-Submersible
Keppel-FELS Ltd. - *Singapore*	55
PPL Shipyard Pte Ltd.- *Singapore*	25
Keppel-AmFELS - *United States*	14
Daewoo Ship & Marine - *Korea*	9
Jurong Shipyard- *Singapore*	8

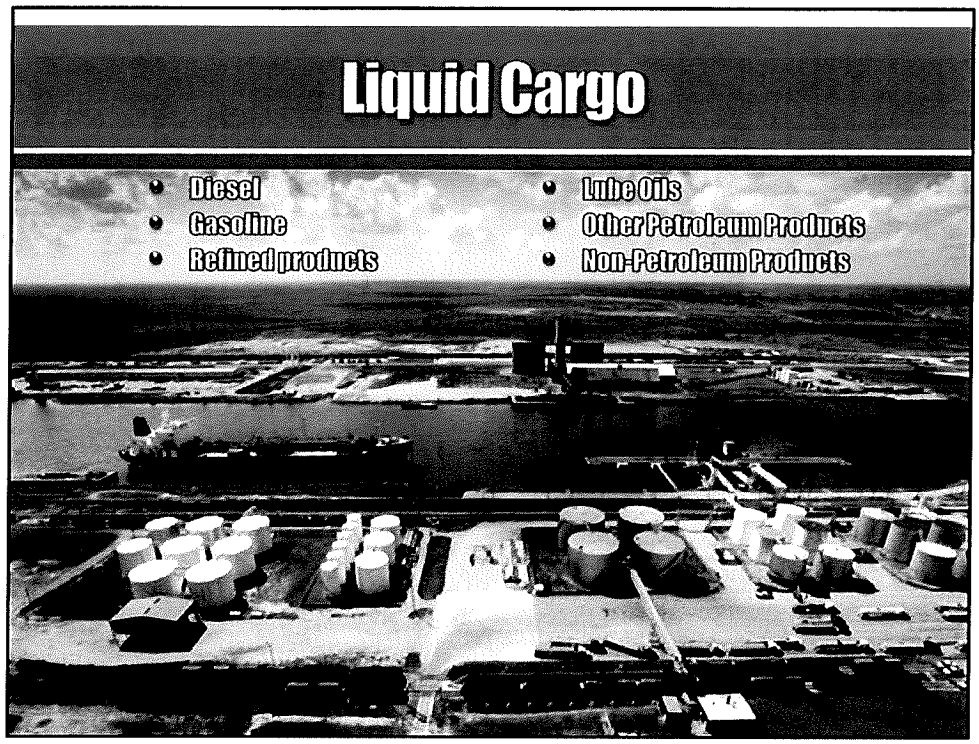
Keppel AmFELS has called the Port of Brownsville home for over twenty (20) years. They are the largest full-service offshore manufacturing facility on the Gulf coast. What distinguishes Keppel AmFELS from other similar facilities is that they don't specialize in any one particular aspect of offshore rig manufacturing. They can produce a rig for a customer from design to delivery; they can repair or modify a rig; and they are a shipyard that can fabricate and repair vessels. Keppel AmFELS is the largest fabricator of new rigs in the United States having fabricated 14 rigs from 2001 – 2010. From 2011 to the present, they have completed four (4) more rigs and currently have two (2) rigs under construction. At full production, Keppel AmFELS supports 3,500 jobs!



The Port of Brownsville is the leader in Shipbreaking in the United States. These Shipbreakers provide a vital service to the nation's interest of safely and responsibly disposing of the obsolete vessel fleet. They produce scrap steel that is sold and exported worldwide. This industry contributes up to 1,200 jobs, and dismantling of the USS Forrestal has created 200 new additional jobs!



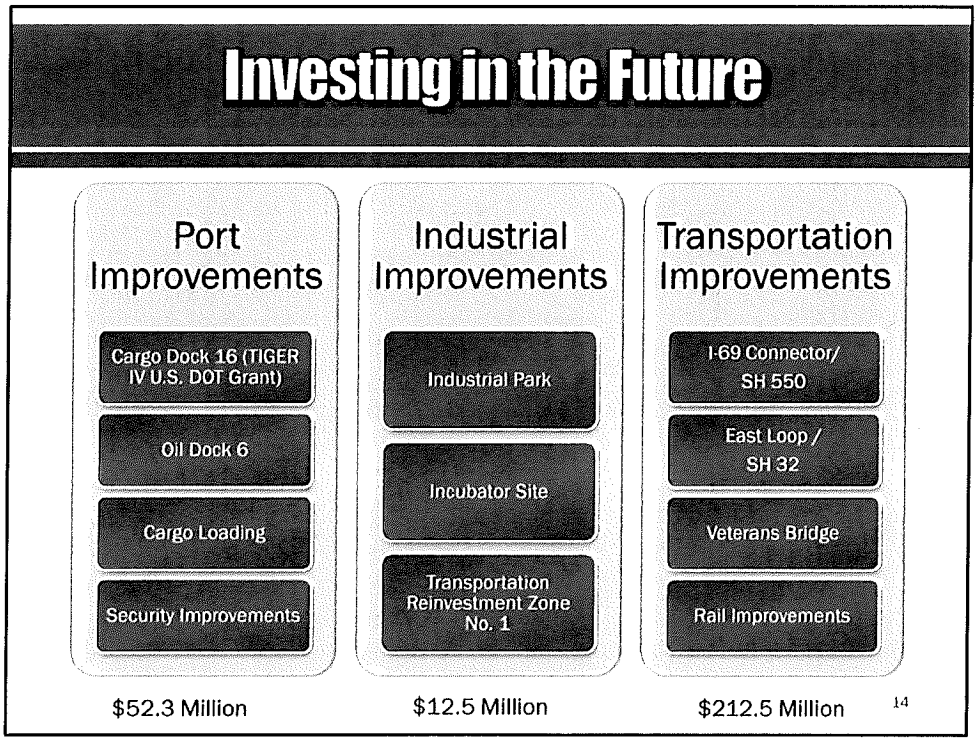
Importing and exporting cargo such as steel, scrap, limestone, ores, project cargo or other breakbulk supports a whole host of terminal, stevedoring and transportation services.



Couple these services with the liquid terminal operations and other liquid bulk cargo and we have another 1,300 jobs. Lastly, if we include the roughly 1,100 jobs associated with the fishing and real estate tenants located at the Port of Brownsville, you quickly realize how critical it is to support and address the long term sustainability of these employers. The Brazos Island Harbor Channel Improvement Project is the most important thing we can do to support this effort.

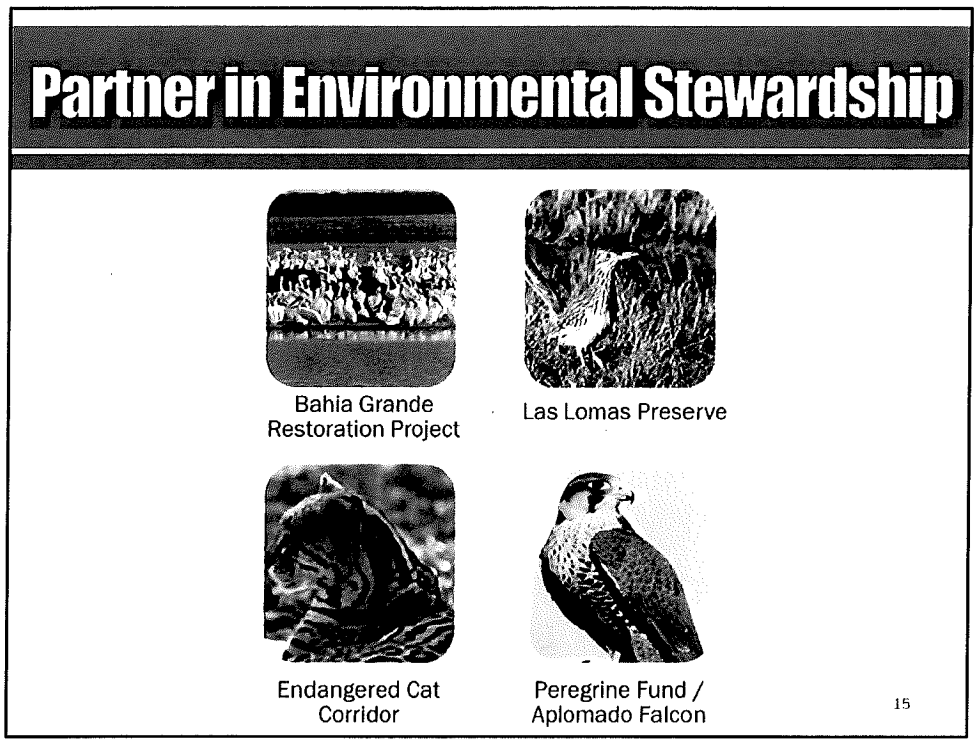
The Port of Brownsville has incredible potential. Beyond helping to grow our existing businesses, there are significant new opportunities that will benefit from the deeper ship channel. The United States in an energy revolution due to the Shale Play as a result of hydraulic fracking. We have become a major producer of natural gas and, and that fact has not been lost on the Port of Brownsville. We currently have five (5) land options for the development of LNG export terminals.

Oil and gas exploration and production is expanding in the western Gulf of Mexico. As part of President Obama's all-of-the-above energy strategy to continue to expand safe and responsible domestic energy production, the Bureau of Ocean Energy Management will offer more than 21 million acres offshore Texas for oil and gas exploration and development in a lease sale scheduled for August 2014. The continued expansion of the western Gulf of Mexico puts the Port of Brownsville at the right place at the right time for supporting offshore oil exploration and production.



With the collaborative efforts of various entities, we are investing millions of dollars in improvements that support the multi-modal services offered at the Port of Brownsville. These improvements include road, rail and port infrastructure necessary to improve the flow of commerce in and out of our area.

The Port of Brownsville is blessed with an abundance of land available for development. We are a port in that has significant land parcels available for development, including large scale waterfront development. All 5 LNG prospects are proposed waterfront developments. We just announced an agreement with OmniTRAX, a large private railroad company, for the development of a 1,200 acres industrial park. We currently have multiple liquid terminal projects under development and we continue to pursue large scale industrial prospects.



The Port of Brownsville has been a supporter and collaborator on numerous environmental initiatives in and around the Port area. The Bahia Grande project is perhaps the most notable. It is one of the largest, if not the largest, wetland restoration projects in the United States. The Port was instrumental in the construction of the pilot channel that created the wetland, and is still actively involved in the project to construct the permanent channel. In fact, the Port of Brownsville has some mitigation credits from its participation in the Bahia Grande Wetland Restoration Project that are applicable to the Brazos Island Harbor Channel Improvement Project. However, because the channel improvement project requires no mitigation, the use of these credits will not be necessary.

Additional initiatives include a lease of approximately 4,200 acres with the US Fish & Wildlife Service for critical wildlife habitat known as the Las Lomas Preserve. We have also designated an endangered cat corridor connecting the north and south sides of the ship channel across SH 48 allowing for the safe crossing of the highway by the endangered Ocelots. Lastly, we have participated in the successful re-introduction of the Aplomado Falcon to the area. We have an agreement with the Peregrine Fund that allows for the relocation any fledglings discovered on Port land to ensure their safety.

In 2006, the City of Brownsville embarked on a series of town meetings designed to engage as much community involvement to encourage the citizens to help chart the vision for the future of Brownsville. Hundreds of citizens and thousands of hours were spent drafting the Imagine Brownsville Comprehensive Plan. This award winning plan was adopted in 2009. The Port of Brownsville along with multiple local entities has been actively engaged in this process. The deepening of the ship channel is recognized as a critical strategic project in the Imagine Brownsville Comprehensive Plan. All of the public entities including the City of Brownsville, the University of Texas at Brownsville, Texas Southmost College and the Brownsville Independent School District support the Port's efforts to deepen the ship channel.

Economically Justified & Environmentally Sound

- Simple Project:
  - High Benefits at Relative Low Cost
- Benefit-to-Cost Ratio (BCR) is 6.4 to 1
- Environmentally Sound
- Utilizes existing Man-made Ship Channel Foot-print
- No Archeological issues or concerns
- No Adverse comments by any group or entity

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In summary, the deepening of the Brownsville Ship Channel is critical to the sustainability of the Port and more importantly, is serves the country's federal interest. The project reaps high benefits at a relatively low cost. The BCR is 6.4 to 1; it is environmentally sound, has no adverse comments, …

Important to the National Interest

- Land available to support Port Growth
- Project supports Major Industry and Job Growth
- Important to service National and International Energy Interests
- Strategically located in proximity of newly developed Energy Production areas
- Services Provider and Builder of Offshore Oil Rigs
- Major Cargo Movement in General Commodities.
- Leader in Steel Imports/Exports
- Leader in Shipbreaking

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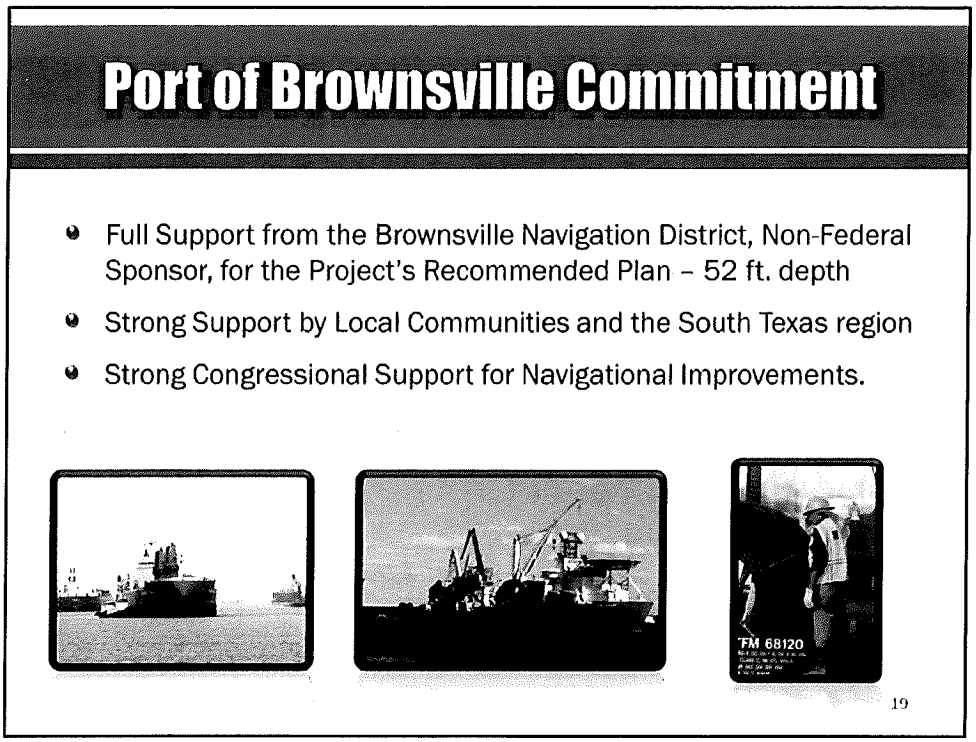
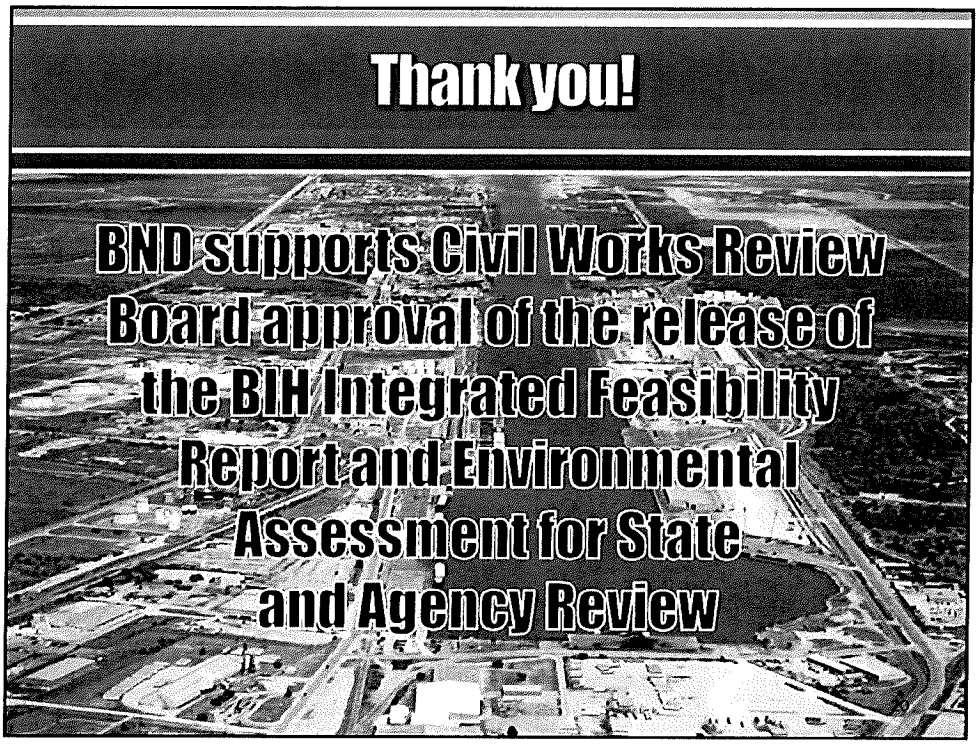
… supports our nation's energy interests and creates good paying American jobs!



The project has the full support of the project sponsor, the Brownsville Navigation District, has broad community and regional support, and has strong Congressional support for the Navigational improvements.



I want to close my presentation by supporting the recommendations of Col. Pannell and his Project Delivery Team, and ask that the Civil Works Review Board affirmatively approve the release of the BIH Integrated Feasibility Report and Environmental Assessment for State and Agency Review.

I want to thank you, Major General Peabody, and the members of the Review Board, for this opportunity and look forward to your approval and release of the report. Furthermore, we look forward with great anticipation to receiving the Chief's Report in September of this year!

Thank you again.