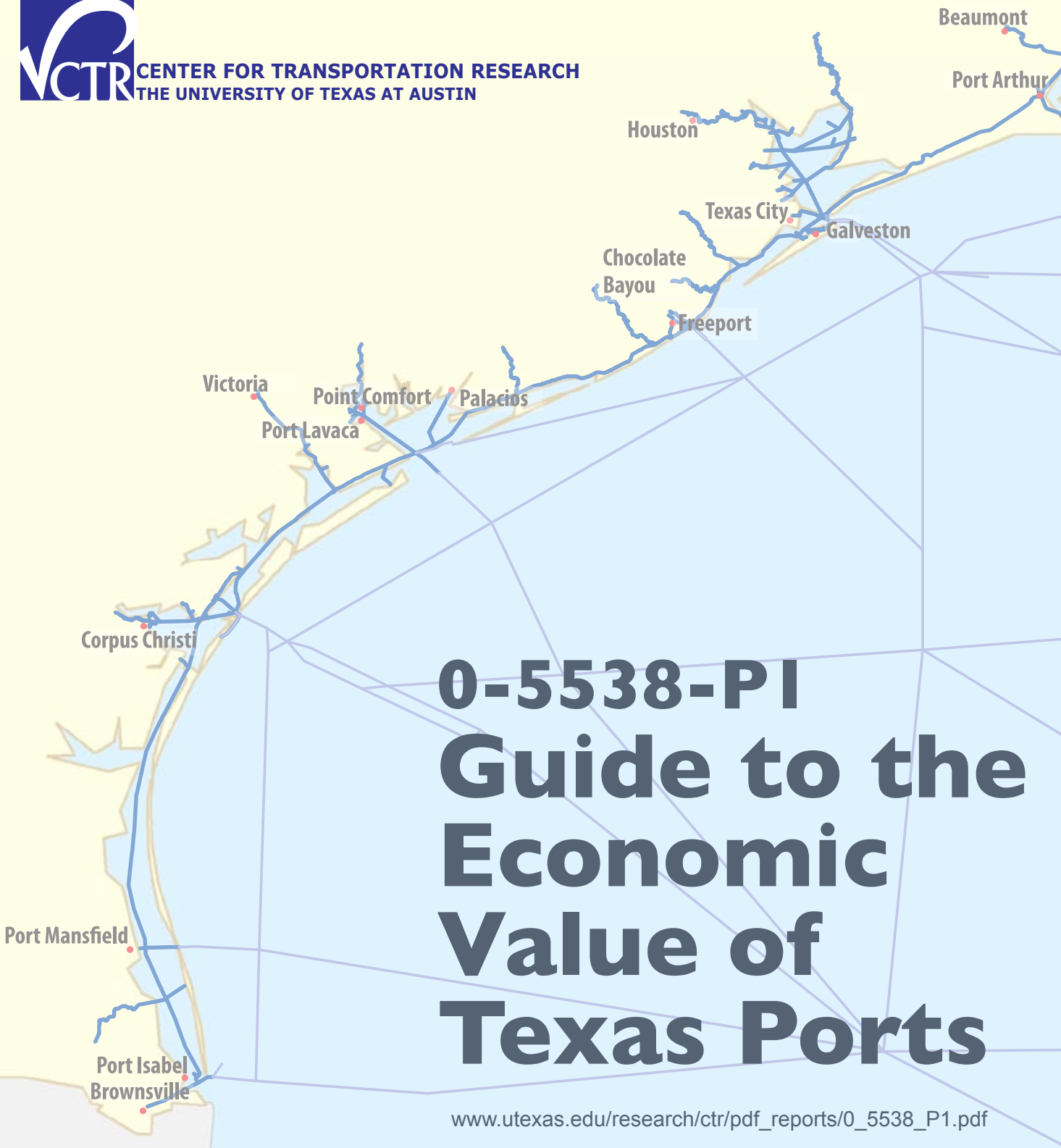




CENTER FOR TRANSPORTATION RESEARCH  
THE UNIVERSITY OF TEXAS AT AUSTIN



# 0-5538-PI Guide to the Economic Value of Texas Ports





**0-5538-PI**

# Guide to the Economic Value of Texas Ports

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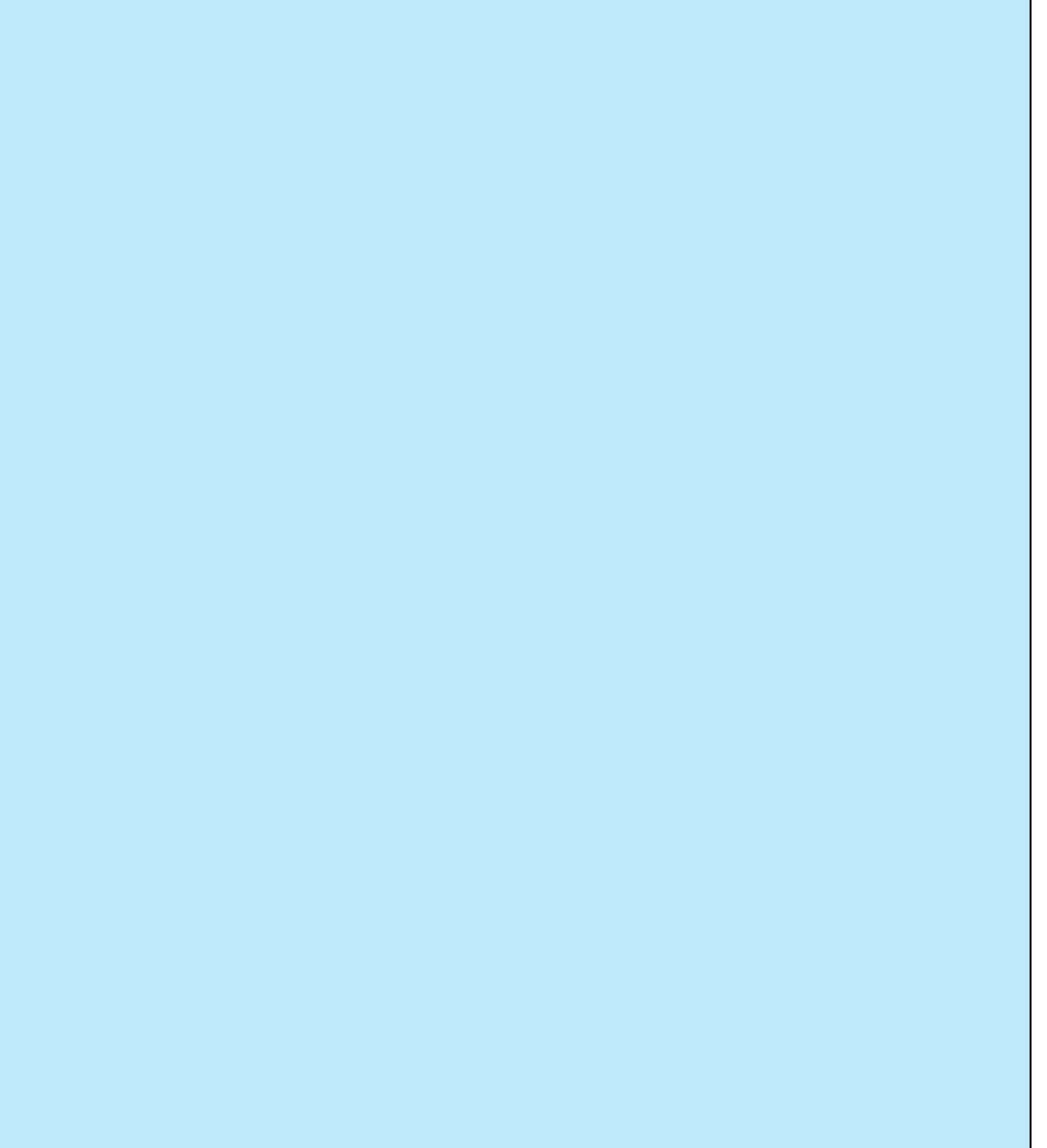
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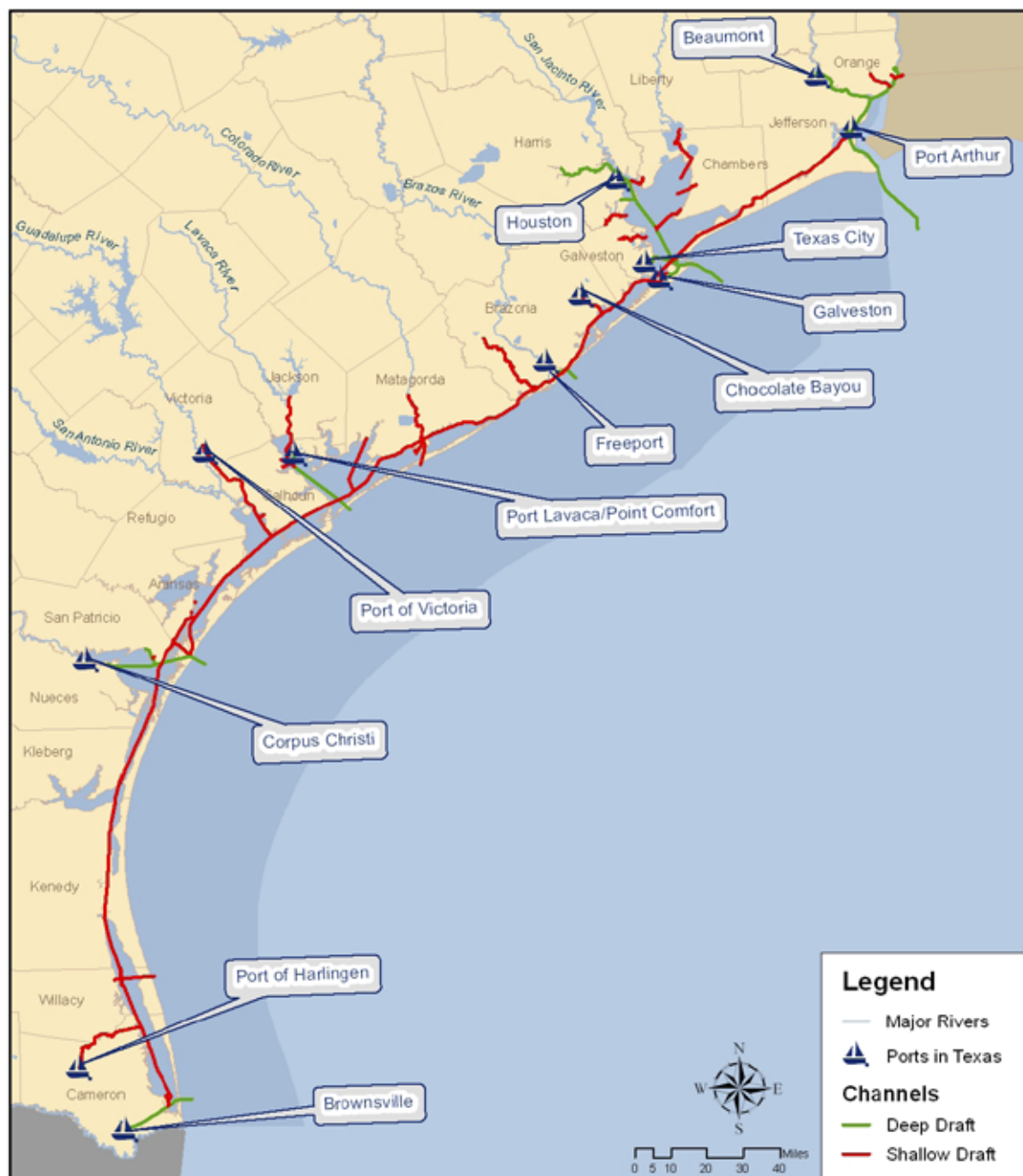
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## FEDERAL NAVIGATION CHANNELS ALONG THE TEXAS COAST

Center for Ports & Waterways  
Texas Transportation Institute  
August, 2006

Source: 2001 Channels, SW 0  
UT Area y Corps of Engineers  
See document for more references.

Projection: Texas Statewide  
Mapping System (TSM2)  
GCS: North America 1983

# Economic Impacts: What are They and How do we Measure Them?

## Introduction

When policymakers make public investments, they are frequently interested in the economic impacts associated with their actions. Stakeholders are usually interested in a policy's economic impact. Common ways of measuring economic impact are the quantity of jobs, sales, and tax receipts associated with an activity. These metrics are often reported as evidence that the welfare of a community will be (or is being) enhanced by a policy decision. This guide summarizes the findings of a CTR/TTI study team investigating the value of Texas ports for the Texas Department of Transportation found in Technical Report 0-5538-1, *An Analysis of the Value of Texas Seaports in an Environment of Increasing Global Trade*. The methods used to derive data reported in this document are detailed in that report, together with more substantive discussions and data on associated topics.

## Local and Regional Economic Impacts

Larger ports facilitate economic activity by acting as gateways where transportation activities and other services facilitate the flow of imported and exported commodities along transportation corridors. Smaller ports may focus on the provision of services or recreational activities, in addition to any activities related to trade flows. At the local or regional level the movement of goods at the port creates employment when truck drivers and train conductors deliver or collect cargo to and from the port, dock workers and longshoremen operate cranes and machinery to load and unload vessels and manage complex terminals, customs officials and Coast Guard personnel regulate international cargo and work with port staff to ensure the security of the port and the nation, and pilot services to guide vessels through the various port waterways and access channels.

The jobs, salaries, and output that result from activities at the port are termed the direct economic impacts of the port and are frequently estimated using survey methods and economic impact modeling. However, this stimulates other related economic activities. Truck drivers serving the port spend money on fuel and maintenance, while businesses at the port (e.g., pilot services and terminal tenants) may purchase insurance and banking services. The economic impacts associated with businesses that conduct transactions with port businesses are called indirect economic impacts. Finally, the spending of the personal incomes (salaries or wages) of individuals employed by those businesses responsible for the direct and indirect impacts also produces economic activity. Induced economic impacts are the impacts that result from the consumption of the employees of those businesses generating the direct and indirect economic activity—in this case at a Texas seaport.

Common measures of economic impacts are employment, wages, output or revenue, and tax revenues. While the methodologies that are used to estimate these impacts vary widely in sophistication and detail, the metrics that are reported tend to be consistent. This is because economic impact studies in the maritime realm often employ input-output (I/O) models derived from I/O economics. These models are most commonly suited to providing users with a local and regional analysis of port impacts. This was the approach

used to estimate the local and regional impacts of Texas seaports described in this study.

### **Evaluating Local and Regional Impacts with IMPLAN**

The local and regional economic impacts of several Texas seaports are estimated in this study through surveys, interviews and the use of a modeling tool called IMPLAN, which is widely used to estimate regional and local economic impacts. IMPLAN was chosen from the available I/O tools because it is regularly updated, regionalized, detailed, and well documented, and supported. Within the I/O framework, economic impacts are commonly reported in terms of direct, indirect, and induced impacts. Direct impacts are usually estimated based on survey results, primary research, and in some cases assumptions about the effects of an investment or policy initiative. The indirect and induced impacts are subsequently derived beginning from a matrix of production relationships, sometimes refined based on the makeup of the key port customers. Input-Output models are capable of providing valuable insight into the nature and magnitude of economic activity at a port and derivatives of it are used by consultants and others addressing this subject.

### **Analyzing the National Impacts of Channel Maintenance Using a General Equilibrium Model**

The researchers applied a Computable General Equilibrium model called USAGE-ITC to estimate the national economic effects of maintaining Texas channels at their authorized depths. Computable general equilibrium (CGE) models provide a mathematical description of an economy as a complete system. The models represent the inter-relationships among sectors of an economy, including household, industry, government, and external sectors.

The USAGE-ITC analyses were conducted separately for deep draft and shallow draft channels. Deep draft channels tend to be associated with larger ports and facilitate the movement of larger vessels while shallow draft channels typically handle primarily barge and small vessel traffic. The commodity traffic also tends to differ by channel depth. While both deep and shallow draft channels handle large amounts of bulk cargo in Texas, shallow draft channels tend to handle very little high-value per-ton and containerized cargo.

This guide summarizes the findings of the 0-5538 Texas Port Value study and these are provided in two sections. The first section reports the impacts to the U.S Gross Domestic Product (GDP) of two maintenance strategies. The first examines the value to the GDP of maintaining a navigable draft in the reaches of the Texas GIWW and three shallow draft waterways serving smaller Texas ports. The second category examines the impact on the GDP of maintaining authorized drafts on the deep draft channels where the cost increase to marine transportation from reducing draft by 5 feet drives the analysis. The impacts are stated as annual costs and it must be emphasized that these costs do not reflect the closing of the channel, should that occur the GDP impacts are likely to be substantially greater.



## National Impacts Related to Texas Waterways and Shallow Draft Channels

The results described in this section were derived from a set of shocks applied to the USAGE-ITC model. The estimated impacts in terms of U.S. GDP and real consumption, for example, can be interpreted as the benefits that the nation realizes from maintaining the channels at their current, 12 foot authorized depth, or the maximum amount that the nation stands to lose by allowing the channels to silt to a depth of roughly 7 feet. It does not measure the impact of closing the channel altogether to shipping, which has sometimes been contemplated for stretches of the GIWW.

The impacts reported are thus small relative to numbers commonly reported for channel or port economic impacts. This is because the estimates reported here are not estimates of the maritime business activity along the three channels and a section of the GIWW. They are solely estimates of the efficiency gains that result from having 12 feet versus 7 feet channels. The approach adopted is thus complementary to more common economic impact estimation methods. Although care should be taken in combining the two, they can each help to enhance a policymaker’s understanding of the economic impact of national infrastructure.

This means that when channels are maintained, there is a lower demand for barge transportation trips (i.e., the demand can be met at a lower level of output by the industry). Maintaining the evaluated channels and a section of the GIWW benefits the GDP. Table 1 shows the increase in real GDP resulting from maintaining each channel and the GIWW at its authorized depth. In each case, the benefits are positive and reflect an increase in output for the United States.

**Table 1. Texas Waterway and Shallow Draft Impact (2007)**

	GDP	Real Consumption	Investment
GIWW	\$190,136,000	\$161,521,000	\$39,368,000
Victoria	\$11,347,000	\$8,856,000	\$2,298,000
Chocolate Bayou	\$14,646,000	\$12,545,000	\$3,115,000
Arroyo	\$1,319,000	\$1,199,000	\$243,000

The increase in real gross domestic product is largely driven by an increase in household consumption. It is, however, important to emphasize that these numbers do not encompass all the benefits that these channels confer on the nation, nor does it reflect the effect on the economy were the channels to be lost entirely. These numbers only reflect the positive difference in output that the U.S. economy enjoys by not allowing the channels to deteriorate from 12 to 7 feet. Indeed, if the channels become shallower, the impact will become greater.

## National Impacts Related to Texas Deep Draft Channels

The research team evaluated eight Texas deep draft channels leading to the Port of Brownsville, Port of Corpus Christi, Port of Freeport, Port of Galveston, Port of Houston, Port of Port Lavaca, the Sabine-Neches Waterway—associated with the Port of Beaumont, Port of Port Arthur and Port of Orange—and the Port of Texas City. As with Texas' shallow draft ports, the research team estimated the cost penalties that would be realized by allowing each channel to deteriorate by a specified amount.

The cost data used in this report were based on an analysis of shipping affected by allowing the channel depth to decrease by a given amount. For example, if a channel has an authorized depth of 40 feet and it deteriorates to 35 feet deep, a percentage of larger ships using the channel would carry fewer tons of cargo to allow them to reduce their draft. The cost of operating the vessel is broadly fixed, so moving less cargo increases the average cost for moving each ton of cargo. This raises the cost of those shipping companies serving the port because it inhibits the operation of vessels with better economies of scale and lower average operating costs. Over the long term, industries may adjust to deterioration in channel depth by relocation or closure so this should be regarded as a short to medium term impact and not the worst impact that could occur from a failure to maintain channels at authorized depths.

The results are given in Table 2 for the ports of Brownsville, Corpus Christi, Port Freeport, Galveston, Houston, Port Lavaca-Matagorda, Sabine-Neches and Texas City. The table presents impacts for the U.S. GDP, household consumption and investment (less government investment). At the time when the model was run to give these data, the 2006 U.S. GDP was \$13.20 trillion, household consumption was \$9.23 trillion and investment \$2.21 trillion.

As agreed with the TPA, the input data for Port Freeport, Houston, Sabine-Neches and Texas City came from the Martin and Associates studies while the remainder was calculated by the CTR/TTI team. It is likely that methodological differences between the two groups create lower values for those channels evaluated by the CTR/TTI team. It is therefore possible that the aggregate impacts on GDP are lower than if the Martin method was adopted.

**Table 2. Deep Draft Impacts**

	GDP	Consumption	Investment
Brownsville	\$2,507,000	\$2,860,000	\$641,000
Corpus Christi	\$6,861,000	\$9,225,000	\$1,657,000
Port of Freeport*	\$7,785,000	\$12,453,000	\$2,474,000
Galveston	\$2,771,000	\$2,491,000	\$0
Houston*	\$792,606,000	\$937,670,000	\$178,901,000
Port Lavaca - Matagorda	\$3,167,000	\$3,598,000	\$685,000
Sabine-Neches*	\$247,401,000	\$314,648,000	\$63,537,000
Texas City*	\$27,841,000	\$42,525,000	\$8,505,000

\*Martin & Associates study

It is believed that this attempt to model a GDP impact through the use of a GEM is the first of its type in U.S. port applications and provides additional financial impacts to those determined by the traditional input-output port impact methods. It is unlikely to be the last as port authorities attempt to capture the full economic impact of their operations, which in many cases stretch beyond city, county and state boundaries.

The next section reports the impacts derived from economic modeling of the Texas ports evaluated by the CTR/TTI team and by Martin and Associates, a reputable marine consulting company which has undertaken all Texas port economic impact studies in recent years. The Texas Ports Association (TPA) requested that the CTR/TTI report the Martin results to maintain consistency with their strategic planning.

### **Economic Impact Tables**

It should be noted that the economic values reported in this brochure are from two different sources – Martin and Associate reports and the IMPLAN model used by CTR staff. Both the approach and measured impacts differ between the sources. The reported impacts vary first between the Martin and Associates reports themselves (some are more detailed than others) and secondly between the Martin and Associates and CTR methods. However, broadly they measure the same issue – the major economic impacts of various Texas deepwater and shallow draft ports.



## **The Regional and Local Impacts of Texas Ports**

## Port of Beaumont

The Port of Beaumont is a large cargo port located approximately 84 miles east of Houston in Jefferson County. It is accessible from the Gulf Intracoastal Waterway through the Sabine-Neches ship channel. One of the greatest advantages of the location of the Port of Beaumont is that it is connected with the U.S. inland waterways. Using these paths, water-transported cargo traveling through the Port of Beaumont can be delivered to Minneapolis, Chicago, St. Louis, Kansas City, Louisville, Omaha, and Memphis. This access to a variety of ports makes the Port of Beaumont a vital shipping port. <sup>1</sup>

Due to its strategic location, the Port of Beaumont is an ideal shipping port and military port. The Port of Beaumont includes layberths for ships of the Maritime Administration as well as various facilities to accommodate the international and U.S. products that pass through the port. The main sources of revenue for the port are import and export, breakbulk and bulk cargo. The Port of Beaumont does most of its international trade with Brazil, Canada, Iraq, Russia, and China. The principal commodities shipped through the port are forest products, aggregate, ash products, and project and military cargo.

**Table 3. Port of Beaumont Economic Impact<sup>2</sup>**

<b>JOBS</b>	<b>3,730</b>
<b>Direct Jobs</b>	<b>970</b>
<b>Induced Jobs</b>	<b>730</b>
<b>Indirect Jobs</b>	<b>165</b>
<b>Related Jobs</b>	<b>1,865</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>129.1</b>
<b>Direct</b>	<b>45.2</b>
<b>Re-Spending / Consumption</b>	<b>77.7</b>
<b>Indirect</b>	<b>6.2</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>122.2</b>
<b>Direct Revenues</b>	<b>107.8</b>
<b>Local Purchases</b>	<b>14.4</b>
<b>TAXES (in millions of US \$)</b>	<b>34.8</b>
<b>State and Local Taxes</b>	<b>11.6</b>
<b>Federal Taxes</b>	<b>23.2</b>

<sup>1</sup> <http://www.portofbeaumont.com>








<sup>2</sup> The Local and Regional Economic Impacts of the Port of Beaumont and Port Arthur. Martin Associates, 2006.

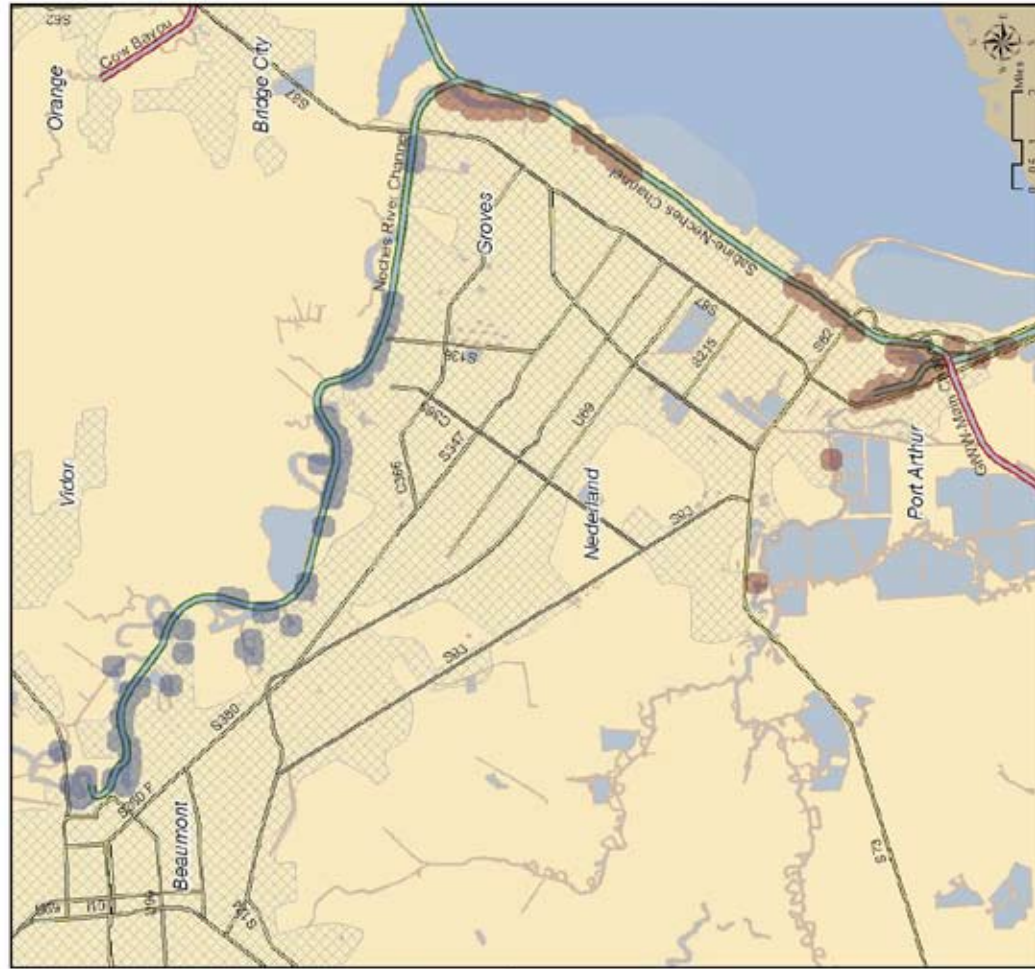
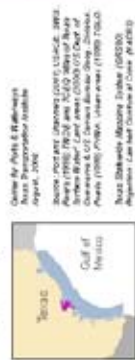


**Figure 1. Port of Beaumont. Source: Microsoft Live Maps**



# FEDERAL NAVIGATION CHANNELS IN THE BEAUMONT PORT AREA

- Legend**
-  Deep Draft Channel
  -  Shallow Draft Channel
  -  Beaumont Port Activity
  -  Port Arthur Port Activity
  -  Louisiana State
  -  Cities of Texas
  -  Major Roads







## Port of Brownsville

The Port of Brownsville provides a vital connection for trade between the United States and Mexico. It is located at the southernmost point of Texas in Cameron County, and it links Mexico's land transportation system to the United States' inland waterway system.<sup>1</sup> A primary focus of the Port of Brownsville is to provide smooth intermodal links to facilitate the transport of cargo. The chief products at the Port of Brownsville are petroleum products, ores and minerals, steel and other metals, vegetable oils, and grains. These products are traded principally with Mexico although the Port also deals in trade with customers in Central/South America, China, Korea, Japan, Germany and Belgium markets. In 2005, the Port of Brownsville operated over 4.5 million tons of cargo<sup>2</sup>

### *Economic Impact*

The table below illustrates the economic importance of the Port of Brownsville to the local economy. The jobs created and revenues and taxes generated by port-related companies in the Port of Brownsville are shown.

**Table 4. Port of Brownsville Economic Impact<sup>3</sup>**

<b>JOBS</b>	<b>38,429</b>
<b>Direct Jobs</b>	<b>4,695</b>
<b>Induced Jobs</b>	<b>2,446</b>
<b>Indirect Jobs</b>	<b>3,437</b>
<b>Related Jobs</b>	<b>27,851</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>1,925.9</b>
<b>Direct</b>	<b>140.8</b>
<b>Re-Spending / Consumption</b>	<b>198.7</b>
<b>Indirect</b>	<b>147.0</b>
<b>Related Income</b>	<b>1,439.4</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>2,779.5</b>
<b>Direct Revenues</b>	<b>515.7</b>
<b>Local Purchases</b>	<b>182.2</b>
<b>Related Output</b>	<b>2,081.6</b>
<b>TAXES (in millions of US \$)</b>	<b>173.6</b>
<b>State and Local Taxes</b>	<b>44.1</b>
<b>Federal Taxes</b>	<b>129.5</b>

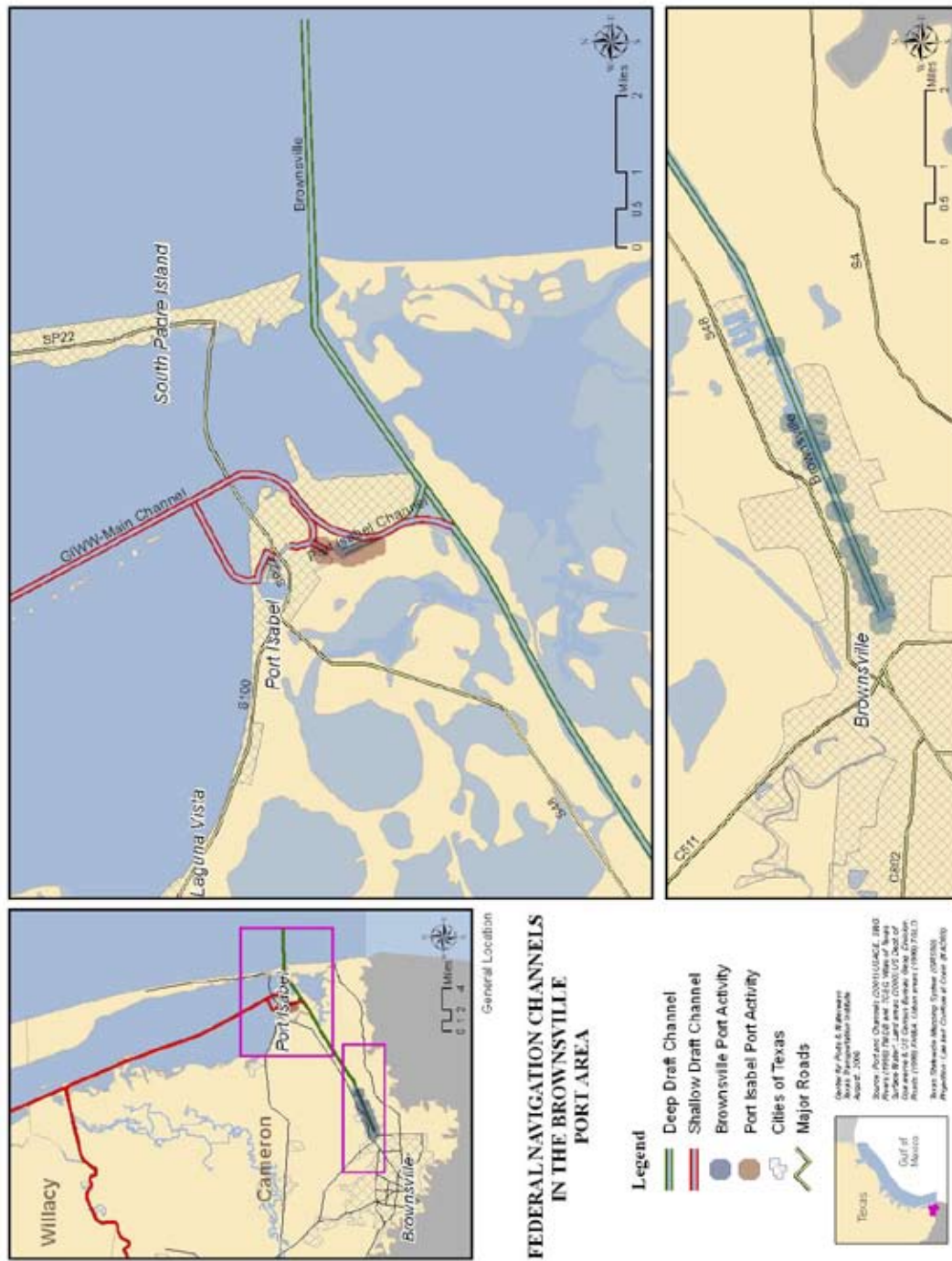
1 <http://www.portofbrownsville.com>

2 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-5.

3 The Local and Regional Economic Impacts of the Port of Brownsville. Martin Associates, 2006.



**Figure 2. The Port of Brownsville. Source: Microsoft Live Maps**





## Port of Corpus Christi

The Port of Corpus Christi is approximately 150 miles north of the U.S.-Mexico border in Nueces County. It includes a channel with a depth of 45 feet and has over 295,500 square feet of covered dockside storage. Along with these shipping facilities, the Port of Corpus Christi provides access to both rail and highway transportation to assist with smooth transitions between transportation modes.<sup>1</sup> In addition to serving locations all over the United States, the Port of Corpus Christi trades with Venezuela, Nigeria, Mexico, Saudi Arabia, Columbia, Algeria, Kuwait, the United Kingdom, Australia, New Zealand and Cuba. The primary imports in these trades are oil, feed stock, bauxite ore, naphtha, condensate, reformat, toluene, frozen beef and fresh fruit. The main exports at the Port of Corpus Christi are oil, gasoline, frozen meat, feed stock, diesel, alumina, petroleum coke, toluene, cumene gas, asphalt and coal. Along with cargo trading, the Port of Corpus Christi has public and private oil docks, warehouses, grain terminals, day cruises, and other cargo-related facilities. In total, the Port of Corpus Christi operated nearly 87 million tons of cargo in 2005.<sup>2</sup> The Port of Corpus Christi is also a strategic port for military deployments and has a recently completed LPG facility. The proposed base closure of the Naval Station at Ingleside in 2010 may also provide the Port with additional capacity.

### *Economic Impact*

The table illustrates the economic importance of the Port of Corpus Christi to the local economy. The jobs created and revenues and taxes generated by port-related companies in the Port of Corpus Christi are shown.

**Table 5. Port of Corpus Christi Economic Impact<sup>3</sup>**

<b>JOBS</b>	<b>40,883</b>
<b>Direct Jobs</b>	<b>11,859</b>
<b>Induced Jobs</b>	<b>8,930</b>
<b>Indirect Jobs</b>	<b>19,116</b>
<b>Related Jobs</b>	<b>978</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>2,171.5</b>
<b>Direct</b>	<b>555.8</b>
<b>Re-Spending / Consumption</b>	<b>686.4</b>
<b>Indirect</b>	<b>929.3</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>2,762.7</b>
<b>Direct Revenues</b>	<b>1,262.7</b>
<b>Local Purchases</b>	<b>1,500.0</b>
<b>TAXES (in millions of US \$)</b>	<b>207.4</b>
<b>State and Local Taxes</b>	<b>194.0</b>
<b>Custom Receipts</b>	<b>13.4</b>

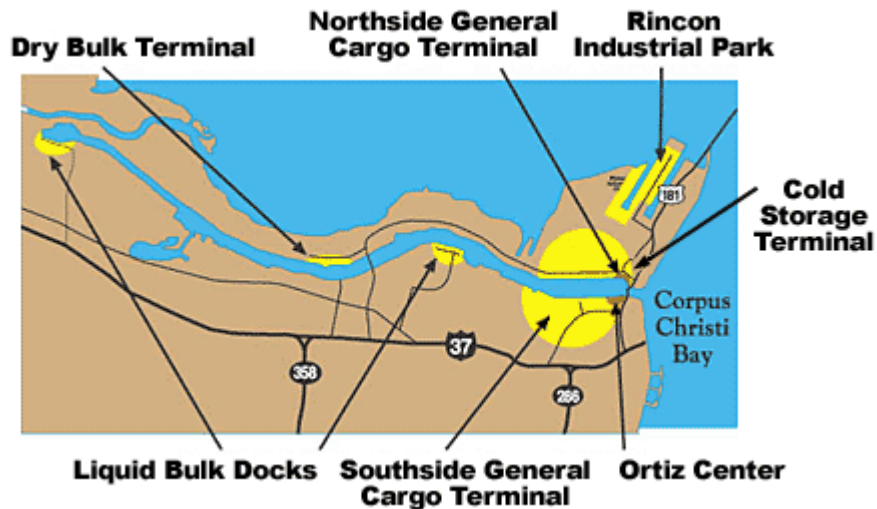
1 <http://www.portofcorpuschristi.com>

2 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-7.

3 The Local and Regional Economic Impacts of the Port of Corpus Christi. Martin Associates, 2004



**Figure 3. Port of Corpus Christi. Source: Microsoft Maps Live**



**Figure 4. Port of Corpus Christi Facilities. Source: Port of Corpus Christi**  
<http://www.portofcorpuschristi.com/Facilities.html>









## **Port of Freeport** (Brazos River Harbor Navigation District of Brazoria County, Texas)

The Port of Freeport is located approximately 50 miles southeast of Houston in Brazoria County. The channel that provides access to the port is 400 ft wide and 45 ft deep, giving the port the capability of handling large vessels. In addition to the current facilities, the port currently has more than 7,500 acres available for development, signaling possible economic growth in the future.<sup>1</sup> The Port of Freeport serves customers throughout the United States in addition to trading with Nigeria, Saudi Arabia, South Africa, Brazil, Columbia, the Dominican Republic, Guatemala, Honduras, Mexico, Venezuela and Costa Rica. The principal imports of the port are crude petroleum, fruit, textiles, aggregate, paper goods and plastics. The primary exported commodities in the Port of Freeport include automobiles, chemicals, clothing, food, paper goods and plastics. The Port of Freeport handled approximately 33.9 million tons of cargo in 2005.<sup>2</sup>

The table below illustrates the economic importance of the Port of Freeport to the local economy. The jobs created and revenues and taxes generated by port-related companies in the Port of Freeport are shown.

**Table 6. Port of Freeport Economic Impact<sup>3</sup>**

<b>JOBS</b>	<b>25,795</b>
<b>Direct Jobs</b>	<b>8,090</b>
<b>Induced Jobs</b>	<b>8,116</b>
<b>Indirect Jobs</b>	<b>9,589</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>1,818.3</b>
<b>Direct</b>	<b>495.6</b>
<b>Re-Spending / Consumption</b>	<b>852.7</b>
<b>Indirect</b>	<b>470.0</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>1,558.9</b>
<b>Direct Revenues</b>	<b>883.0</b>
<b>Local Purchases</b>	<b>675.9</b>
<b>TAXES (in millions of US \$)</b>	<b>169.9</b>
<b>State and Local Taxes</b>	<b>163.6</b>
<b>Custom Receipts</b>	<b>6.3</b>

1 <http://www.portfreeport.com>

2 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-9

3 The Local and Regional Economic Impacts of the Port of Freeport. Martin Associates, 2004



**Figure 5. Port of Freeport. Source: Microsoft Maps Live**





## Port of Galveston (Board of Trustees of the Galveston Wharves)

The Port of Galveston is located at the mouth of Galveston Bay along the Upper Texas Coast in Galveston County. Although the public may be best acquainted with the port through its cruises, it has historically handled containerized cargo, dry and liquid bulk, break-bulk, roll-on/roll-off cargo, and refrigerated and project cargo.<sup>1</sup> Commodities arriving at the port are often destined for Galveston County, Harris County, Fort Bend County, Brazoria County, the state of Texas, as well as Texas' neighboring states and the United States Midwest region. The port's international trading partners include Mexico, Guatemala, Panama, Columbia, Venezuela, Brazil, Dominican Republic, Spain, Italy, Egypt, Israel, Turkey, Bulgaria, Belgium, England, Germany, Saudi Arabia, United Arab Emirates, Kuwait, Singapore and China. The port's main exports are bulk grains, containers, machinery, vehicles, liner board and paper, carbon black, and light fuels.<sup>2</sup> In 2006, the Port of Galveston handled 6.2 million tons of cargo and had 617,000 cruise embarkations.

**Table 7. Port of Galveston Economic Impact**

<b>EMPLOYMENT</b>	<b>13,367</b>
<b>Direct Jobs</b>	<b>3,326</b>
<b>Indirect Jobs</b>	<b>3,794</b>
<b>Induced Jobs</b>	<b>6,247</b>
<b>LABOR INCOME (in millions of US \$)</b>	<b>727.5</b>
<b>Direct</b>	<b>212.6</b>
<b>Indirect</b>	<b>229.7</b>
<b>Induced</b>	<b>285.3</b>
<b>BUSINESS REVENUE (in millions of US \$)</b>	<b>2245.8</b>
<b>Direct</b>	<b>986.0</b>
<b>Indirect</b>	<b>516.0</b>
<b>Induced</b>	<b>743.8</b>
<b>TAXES (in millions of US \$)</b>	<b>190.4</b>
<b>State and Local Taxes</b>	<b>86.3</b>
<b>Federal Taxes</b>	<b>104.1</b>

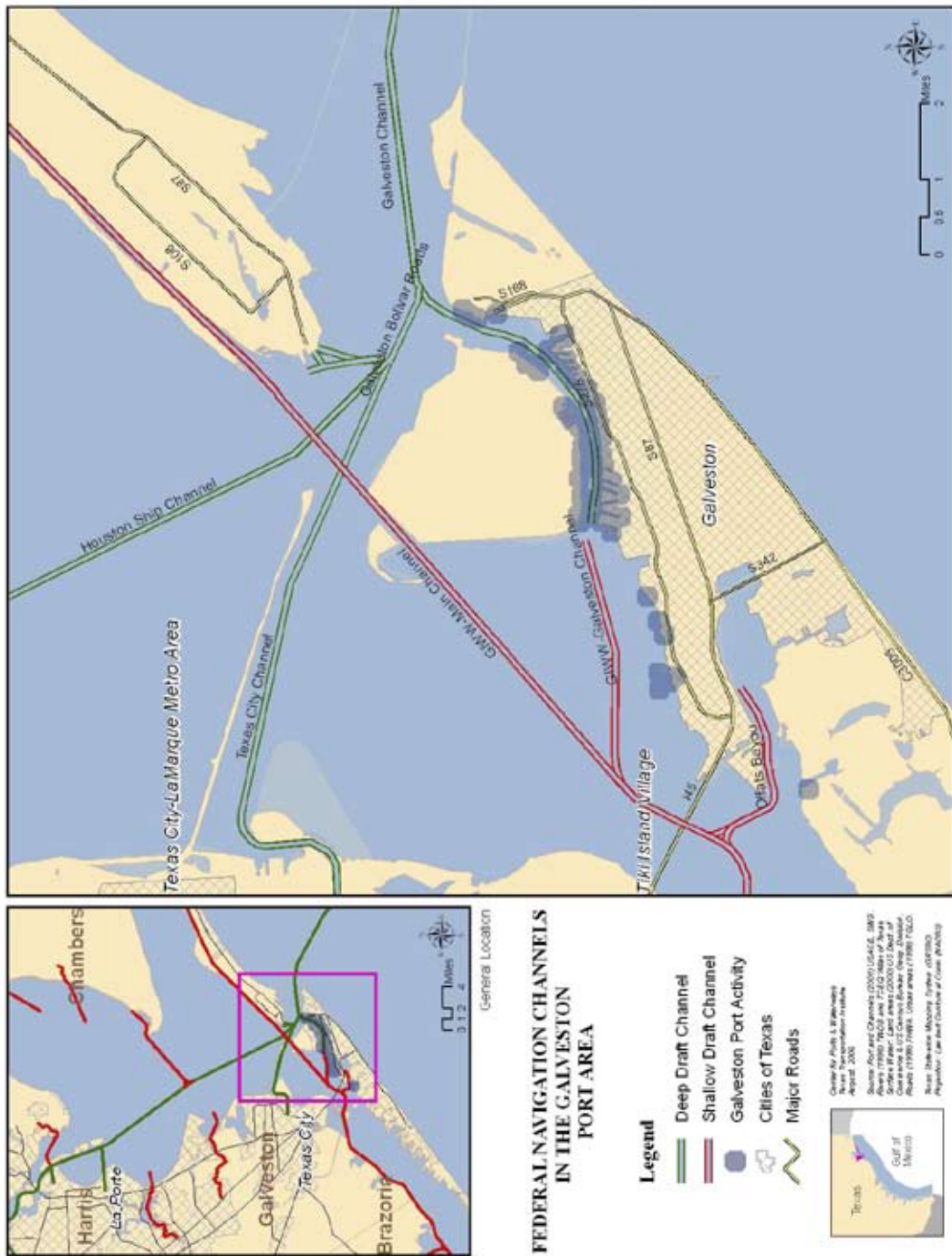
1 Port of Galveston, "The Port of Galveston," 2007, <<http://www.portofgalveston.com/index.shtml>> (11 July 2007)

2 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-11.



**Figure 6. Port of Galveston. Source: Microsoft Live Maps**









**Port of Harlingen** (Port of Harlingen Authority)

The Port of Harlingen is located approximately four miles east of the city of Harlingen in South Texas in Cameron County on the Arroyo Colorado channel. The channel is maintained at a depth of 12 feet and a width of 125 feet.<sup>1</sup> It facilitates access between the agricultural industries of Cameron County and the Gulf Intra-Coastal Waterway, and the Gulf of Mexico. The port includes a 650 ft dry cargo wharf, a 100 ft dry bulk wharf, and five smaller docks.<sup>2</sup> There are currently plans to construct a warehouse facility that will be leased to local port users. The Port of Harlingen largely facilitates the trade of bulk cargo and petroleum between Harlingen and other areas in South Texas and Mexico.<sup>3</sup> In 2005, the Port of Harlingen moved 947,000 tons of cargo, with sugar and chemicals being the most common commodities.<sup>4</sup> While sugar is among the largest exports, the port imports petroleum, cement, sand and fertilizer. The Port of Harlingen is linked by railroads and modes to markets throughout South Texas and Mexico.<sup>5</sup>

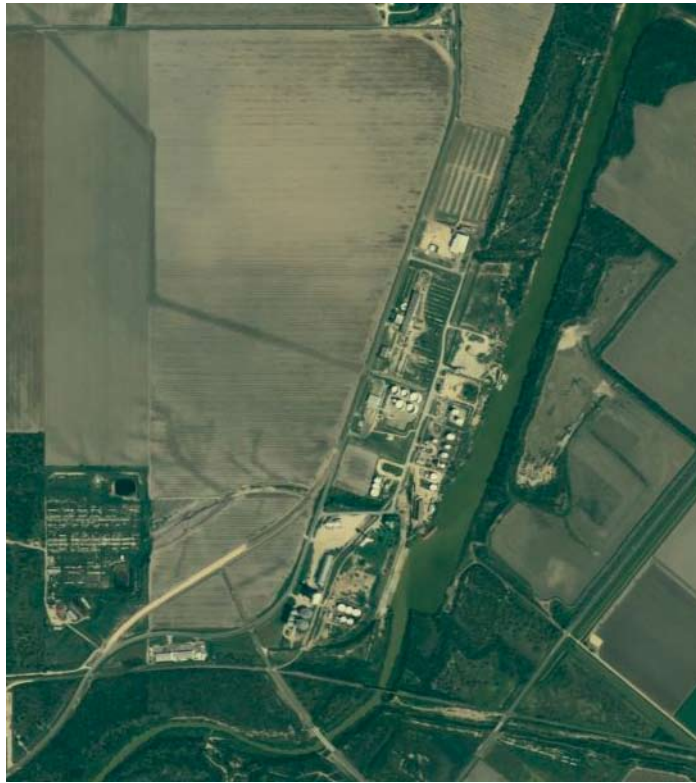
**Table 8. Port of Harlingen Economic Impact**

<b>EMPLOYMENT</b>	<b>88</b>
<b>Direct Jobs</b>	<b>40</b>
<b>Indirect Jobs</b>	<b>24</b>
<b>Induced Jobs</b>	<b>24</b>
<b>LABOR INCOME (in millions of US \$)</b>	<b>3.7</b>
<b>Direct</b>	<b>2.2</b>
<b>Indirect</b>	<b>0.8</b>
<b>Induced</b>	<b>0.7</b>
<b>BUSINESS REVENUE (in millions of US \$)</b>	<b>19.3</b>
<b>Direct</b>	<b>15.0</b>
<b>Indirect</b>	<b>2.5</b>
<b>Induced</b>	<b>1.9</b>
<b>TAXES (in millions of US \$)</b>	<b>0.9</b>
<b>State and Local Taxes</b>	<b>0.4</b>
<b>Federal Taxes</b>	<b>0.5</b>

1 <<http://www.portofharlingen.com/location.htm>>

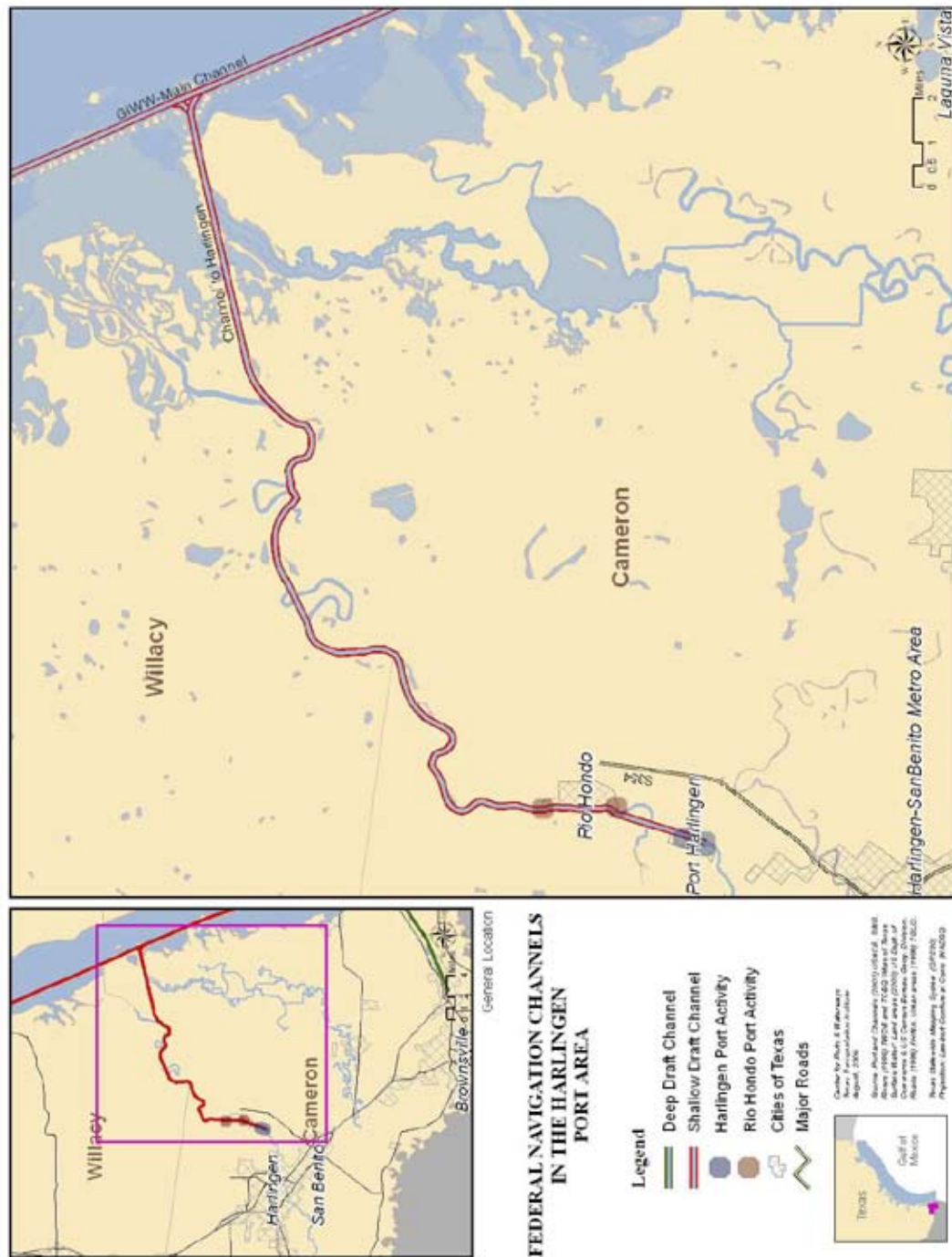
2 <<http://www.portofharlingen.com/facilities.htm>>

3, 4, 5 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-13.



**Figure 7. Port of Harlingen. Source: Microsoft Live Maps**







## Port of Houston (Port of Houston Authority)

The Port of Houston is one of the largest cargo ports in the world, ranked first in the U.S. in foreign waterborne tonnage, and second in total tonnage. The port includes a 25-mile-long complex of diversified public and private facilities.<sup>1</sup> The Port of Houston is also the second-largest Texas cruise port and its importance may grow with the opening of its new cruise terminal at Bayport. Within the United States, the Port of Houston serves the Midwest, Central, Southwest and Western United States.<sup>2</sup> International trade partners of the Port of Houston include various countries in the Middle East, South America, Europe and Mexico. The principal products dealt with at the Port of Houston include crude fertilizers, petroleum, organic chemicals, cereal, iron and steel, machinery, plastics and vehicles. In 2005, the Port of Houston operated over 34.5 million tons of cargo. The Port of Houston, because of its size and diversity, is one of the most vital cargo and transportation ports in Texas.<sup>3</sup>

The table below illustrates the economic importance of the Port of Houston to the local economy. The jobs created and revenues and taxes generated by port-related companies in the Port of Houston are listed in the table.

**Table 9. Port of Houston Economic Impact<sup>4</sup>**

<b>JOBS</b>	<b>785,049</b>
<b>Direct Jobs</b>	<b>58,142</b>
<b>Induced Jobs</b>	<b>61,714</b>
<b>Indirect Jobs</b>	<b>79,127</b>
<b>Related Jobs</b>	<b>586,066</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>39,264.8</b>
<b>Direct</b>	<b>2,833.5</b>
<b>Re-Spending / Consumption</b>	<b>7,448.7</b>
<b>Indirect</b>	<b>3,148.0</b>
<b>Related Income</b>	<b>25,834.6</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>117,589.5</b>
<b>Direct Revenues</b>	<b>8,084.6</b>
<b>Local Purchases</b>	<b>5,912.9</b>
<b>Related Output</b>	<b>103,592.0</b>
<b>TAXES (in millions of US \$)</b>	<b>3,690.8</b>
<b>Direct, Induced, and Indirect</b>	<b>1,262.4</b>
<b>Related State and Local Taxes</b>	<b>2,428.4</b>

\*includes public and private terminals

1 <http://www.portofhouston.com>

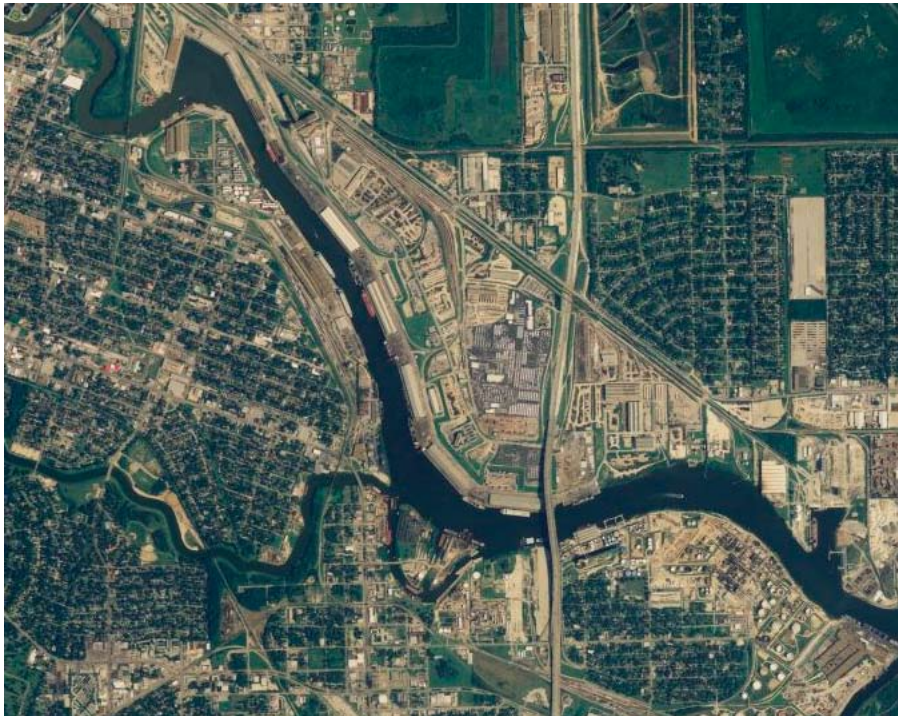
2,3 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-14.

4 The Local and Regional Economic Impacts of the Port of Houston. Martin Associates, 2007.





**Figure 8. Houston Bay and Navigation Channels. Source: Microsoft Live Maps**

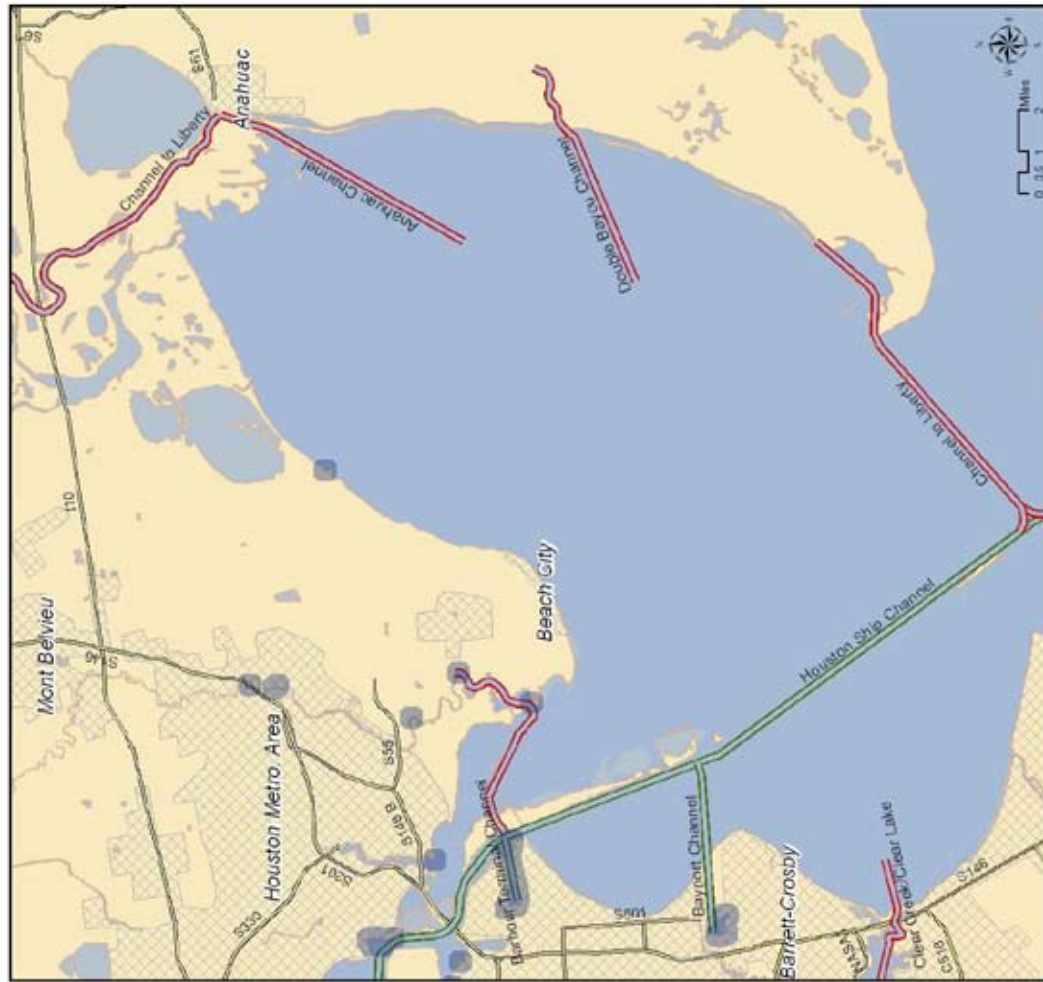


**Figure 9. Port of Houston. Source: Microsoft Live Maps**



# FEDERAL NAVIGATION CHANNELS IN THE HOUSTON BAY PORT AREA

- Legend**
- Deep Draft Channel
  - Shallow Draft Channel
  - Houston Bay Area Port Activity
  - Cities of Texas
  - Major Roads







General Location

# **FEDERAL NAVIGATION CHANNELS IN THE HOUSTON CITY PORT AREA**

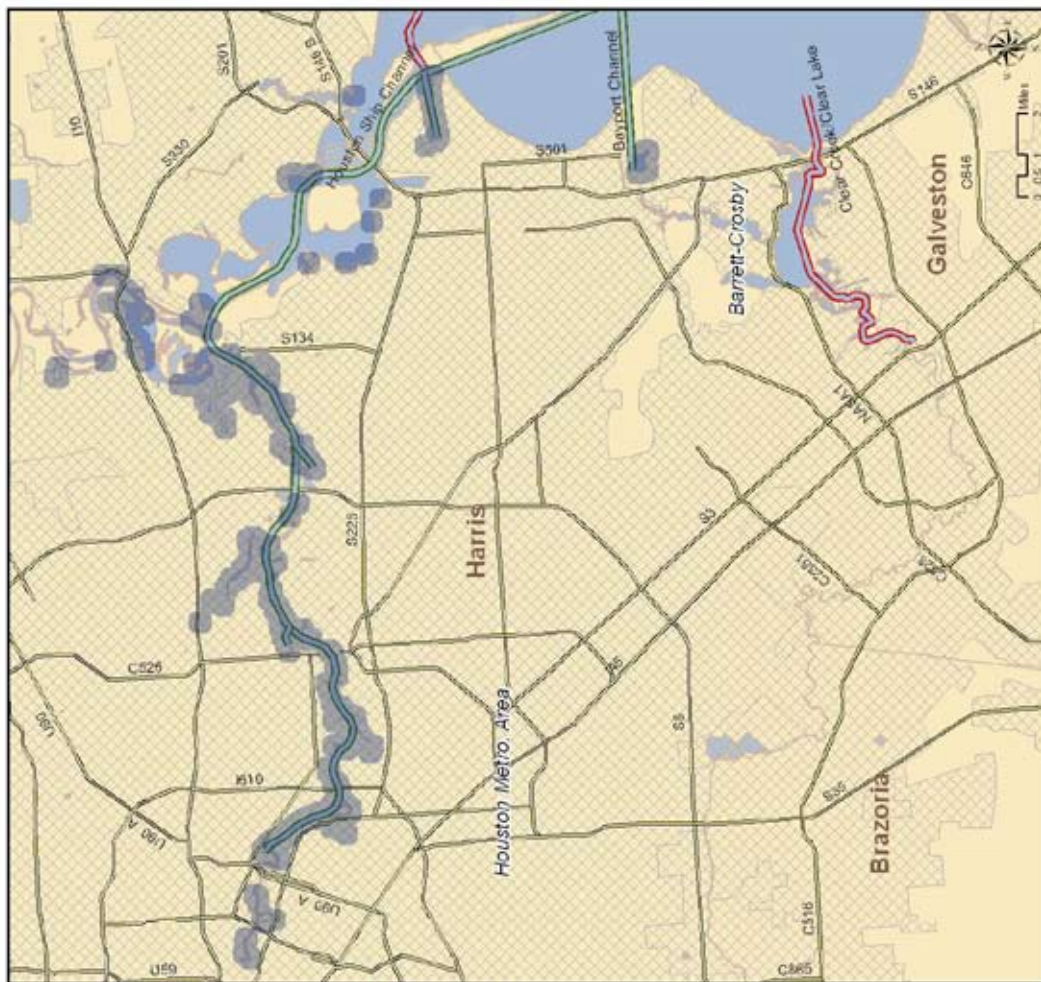
## **Legend**

- Deep Draft Channel
- Shallow Draft Channel
- Houston City Area Port Activity
- Cities of Texas
- Major Roads



Source: Port of Houston  
August, 2008

Source: Port of Houston (PHH), USACE, NOAA,  
Bureau of Ocean Energy Management (BOEM),  
Bureau of Reclamation (BOR), Texas Department of  
Transportation (TxDOT), and U.S. Army Corps of  
Engineers (USACE).  
Note: Data were last updated in 2008.  
Port of Houston Authority (PHH)  
Port of Houston Authority (PHH)



# Port of Orange

The port is located on the Sabine-Neches waterway and is linked to the “Golden Triangle” ports of Port Arthur, Beaumont and Sabine Pass – an area that has become strategically more important to Texas ports growth since 2003. It has handled an annual tonnage of around 800,000 since 2001 and traditionally has acted as a successful landlord port, complementing activities at larger ports on the Sabine-Neches channel. The following table gives the principal activities and throughput for 2001-2004, and describes facilities which are likely to change significantly as the port grows.

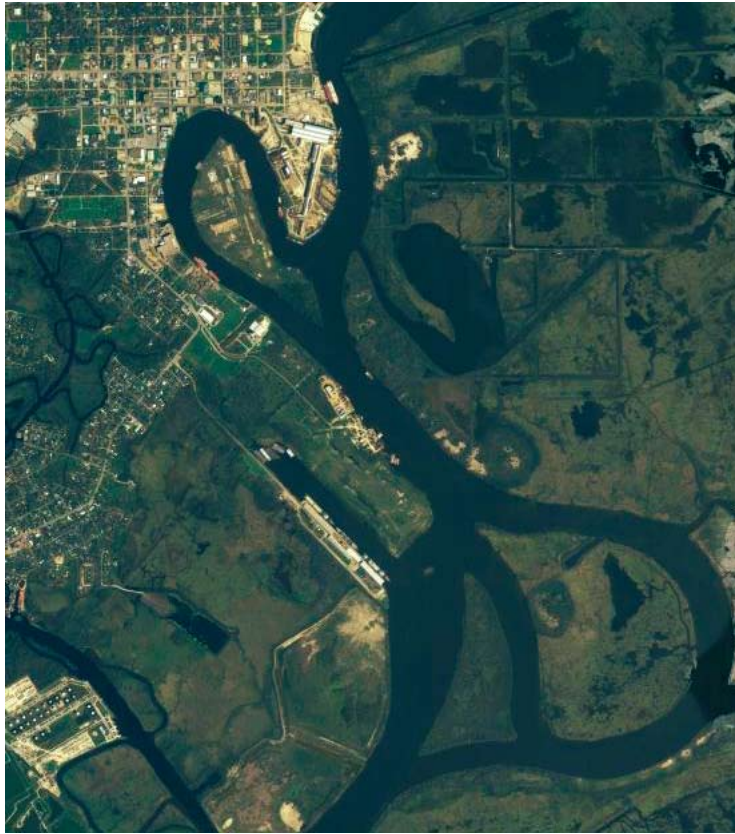
Job creation at the port grew after 2005, following the storing of vessels and the first stage of rehabilitating the Union Pacific link to port property. The refurbished UP rail link was also complemented by an improved road link to the port, built by an oil company at a cost of \$300,000. One important initiative at the port is the mechanical, electrical repair, and fabrication of ocean-going barges of the type used to service deep water Gulf oil rigs. An input-output evaluation of the port economic benefits was postponed until the port and its tenants had fully recovered from the devastation caused by the 2008 Hurricane Ike.

## Principal Activities and Products:

- The Port facilities and equipment include four berths with a total of 2,300 feet of docking space at a depth of 30 feet, a grain elevator and bagging facility, and eight warehouses.
- The Port docks are currently used for layberth and ship repair. The docks are regularly used by MARAD, which is a division of the U.S. Department of Transportation, to service, repair, and maintain the military ready reserve fleet.

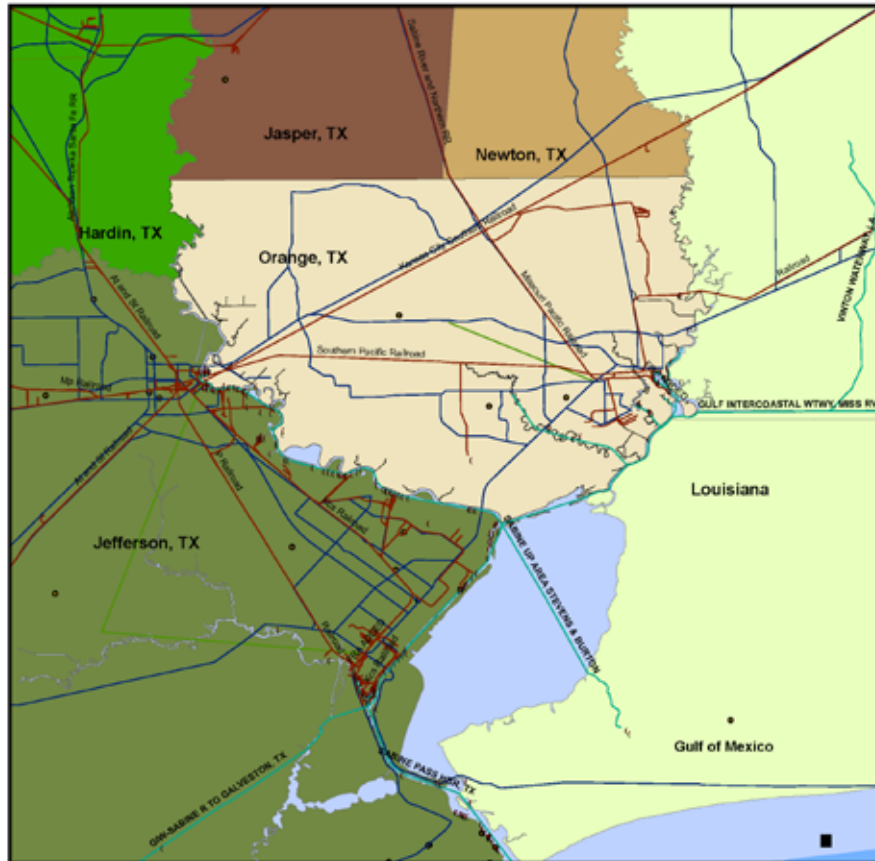
	2001	2002	2003	2004
Cargo (tons)	798,000	764,000	825,000	609,000
Revenues*	\$2,260,521	\$1,889,001	\$1,990,561	\$1,969,975

\* Port revenues



**Figure 10. Port of Orange. Source: Microsoft Live Maps**

## Orange County Maritime Transportation Network Detail



0 0.035 0.07 0.14 0.21 0.28  
Decimal Degrees

### Maritime Transportation Network Elements

- ◁ Port Facilities
- National Waterway Network
- National Rail Network
- National Highway Planning Network
- Freight Analysis Framework (FAF) Network
- Public Use Airports
- Calhoun County, TX
- Hydrographic Features

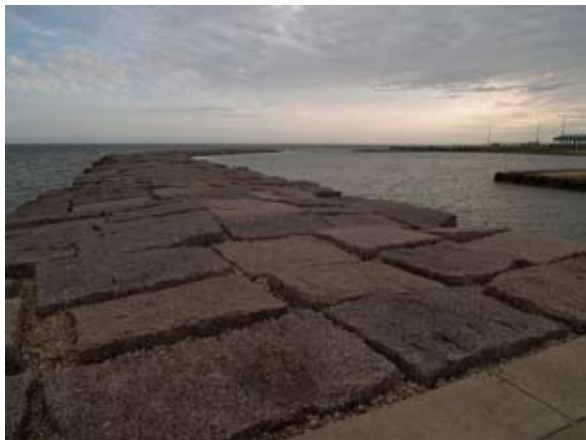




**Port of Palacios** (Matagorda County Navigation District #1)

The Port of Palacios is located on the Upper Gulf Coast approximately 110 miles south of Houston in Matagorda County. Traditionally, Palacios’ chief industry has been shrimping. Although the shrimping industry in Texas has suffered steep declines under pressure from rising operational costs and falling shrimp prices, recently there were as many as 300 operational shrimp and oyster boats in Palacios. In Texas, the Port of Palacios is the second largest shrimping port, behind the combined ports of Brownsville and Port Isabel. In 2005, the shrimpers at the Port of Palacios caught 12.1 million tons of shrimp. Palacios and its environs also offer recreational marina facilities and tourist accommodations.

The Port of Palacios has also traditionally had a significant ship repair and service industry which served the shrimp fleet. As the shrimp fleet has declined in size, some facilities have been converted to serve a growing barge and boat building industry.



***Table 10. Port of Palacios Economic Impact***

<b>EMPLOYMENT</b>	<b>658</b>
Direct Jobs	541
Indirect Jobs	74
Induced Jobs	43
<b>LABOR INCOME (in millions of US \$)</b>	<b>10.9</b>
Direct	7.9
Indirect	1.8
Induced	1.1
<b>OUTPUT (in millions of US \$)</b>	<b>41.2</b>
Direct Revenues	31.1
Indirect Revenues	6.1
Induced Revenues	4.1
<b>TAXES (in millions of US \$)</b>	<b>2.1</b>
State and Local Taxes	0.8
Federal Taxes	1.3



**Figure 11. The Port of Palacios. Source: Microsoft Live Maps**





## Port of Port Arthur

The Port of Port Arthur is situated directly on the Gulf Intracoastal Waterway (GIWW) and only 19 miles from the Gulf of Mexico. Port Arthur's strategic location on the GIWW provides easy barge transportation on the U.S. inland waterway system to cities along the Mississippi, Ohio, Arkansas, Tennessee, Missouri and Illinois Rivers plus its many tributaries. Panamex size vessels began taking advantage of the ports new 2000 terminal expansion for lay berthing. Port Arthur has emerged as a major breakbulk port for forest products, project cargo, steel and military redeployments. Port Arthur's principal trading partners include South America, the European Continent, United Kingdom, Mediterranean Area, Middle East and Mexico.

Table 11 illustrates the economic importance of the Port of Port Arthur to the local economy.

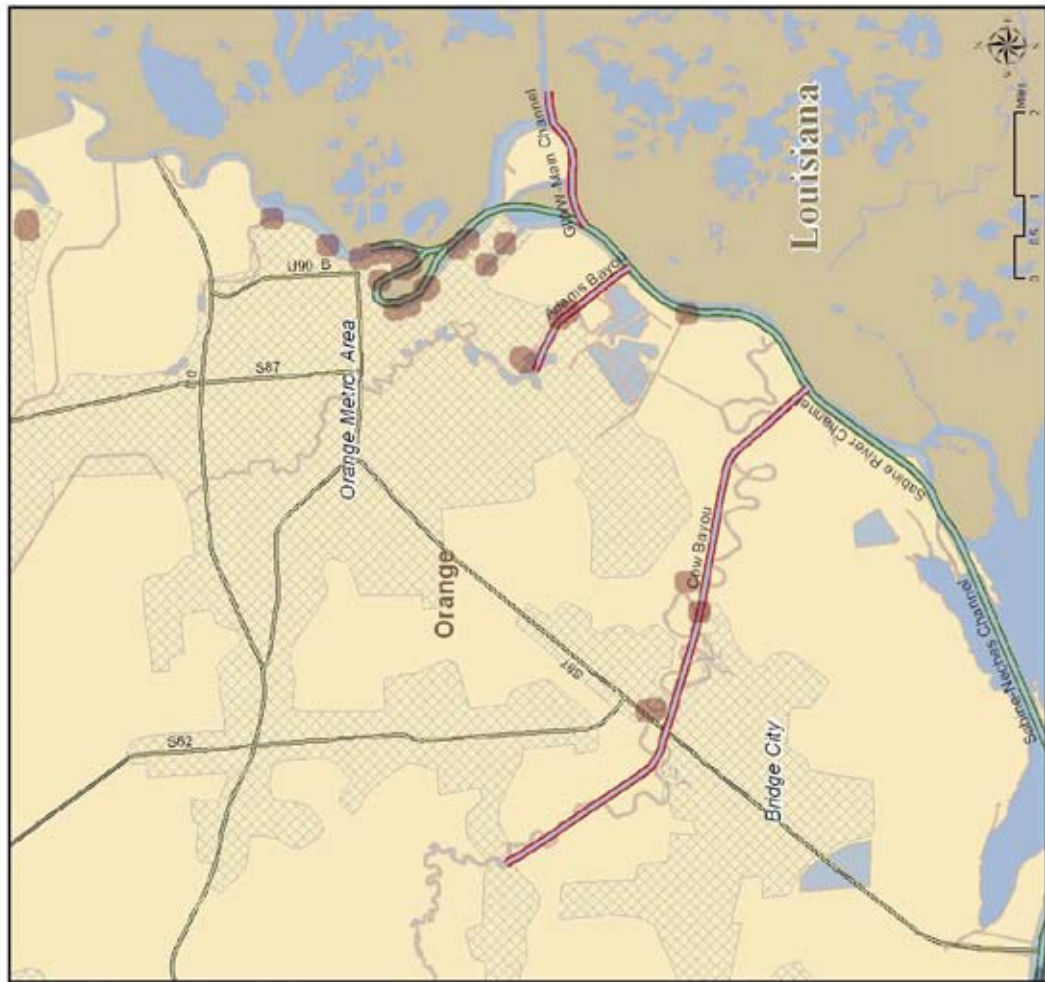
**Table 11. Port of Port Arthur Economic Impact<sup>1</sup>**

<b>JOBS</b>	<b>5,926</b>
<b>Direct Jobs</b>	<b>1,509</b>
<b>Induced Jobs</b>	<b>1,132</b>
<b>Indirect Jobs</b>	<b>192</b>
<b>Related Jobs</b>	<b>3,093</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>177.8</b>
<b>Direct</b>	<b>74.0</b>
<b>Re-Spending / Consumption</b>	<b>83.1</b>
<b>Indirect</b>	<b>20.7</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>128.0</b>
<b>Direct Revenues</b>	<b>112.6</b>
<b>Local Purchases</b>	<b>15.4</b>
<b>TAXES (in millions of US \$)</b>	<b>42.7</b>
<b>State and Local Taxes</b>	<b>11.1</b>
<b>Custom Receipts</b>	<b>31.6</b>

1 The Local and Regional Economic Impacts of the Port of Beaumont and Port Arthur. Martin Associates, 2006.



**Figure 12. Port of Port Arthur. Source: Microsoft Live Maps**





General Location

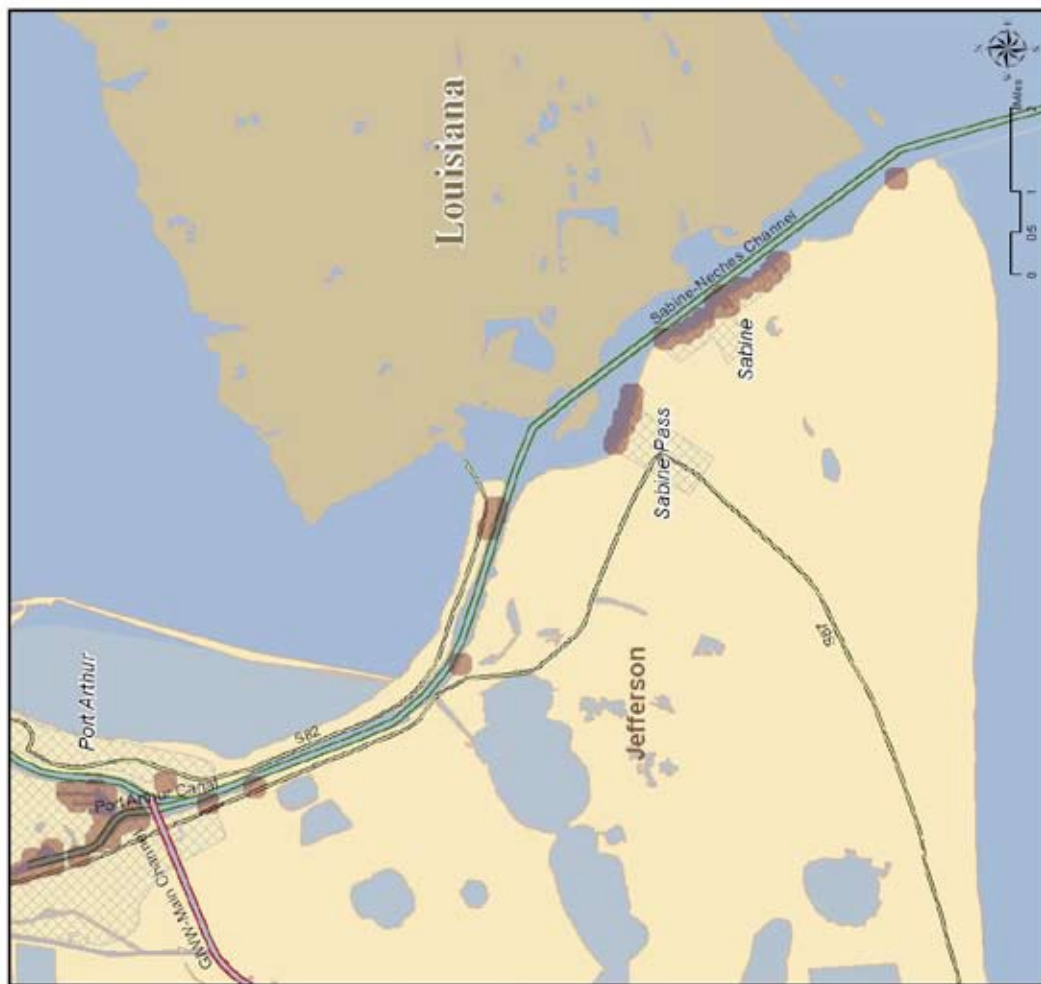
## FEDERAL NAVIGATION CHANNELS IN THE PORT ARTHUR (South) PORT AREA

### Legend

- Deep Draft Channel
- Shallow Draft Channel
- Port Arthur Port Activity
- Beaumont Port Activity
- Louisiana State
- Cities of Texas
- Major Roads

Source: Port Arthur & Sabine Pass  
Navigation Channel Study  
August, 2000

Source: Port Arthur & Sabine Pass  
Navigation Channel Study (2000) (2000).  
Beaumont (1999) (1999) and 17500 (1999) of Texas  
Sabine Pass - Land area (2000) (2000) of Texas  
Port Arthur (1999) (1999) and 17500 (1999) of Texas  
Beaumont (1999) (1999) and 17500 (1999) of Texas  
Beaumont (1999) (1999) and 17500 (1999) of Texas  
Beaumont (1999) (1999) and 17500 (1999) of Texas









**Port of Port Isabel** (Port Isabel San Benito Navigation District)

The Port of Port Isabel is located approximately 35 miles southeast of Harlingen in Cameron County near South Padre Island and is an important tourist center. Port Isabel’s businesses include various seafood processing operations, concrete mix preparation, and boat construction and repair companies.<sup>1</sup> While the port has traditionally had an offshore exploration presence, there have been substantial recent petroleum discoveries in the Gulf of Mexico. These discoveries have made Port Isabel the closest deepwater port to major gulf petroleum deposits, and this is causing major changes at the port as it supports exploration and extraction operations in the Gulf. This means that the economic impact estimates in the report are likely to grow strongly in the next few years. Although the ongoing shift toward oil services at the port will likely change the dimensions of Port Isabel’s international trade, Port Isabel has recently facilitated trade with the Rio Grande Valley and on an international basis with Honduras, El Salvador, Guatemala, and Belize.<sup>2</sup>

**Table 12. Port of Port Isabel Economic Impact**

<b>EMPLOYMENT</b>	<b>948</b>
<b>Direct Jobs</b>	<b>605</b>
<b>Indirect Jobs</b>	<b>189</b>
<b>Induced Jobs</b>	<b>154</b>
<b>LABOR INCOME (in millions of US \$)</b>	<b>23.4</b>
<b>Direct</b>	<b>14.0</b>
<b>Indirect</b>	<b>5.2</b>
<b>Induced</b>	<b>4.2</b>
<b>BUSINESS REVENUE (in millions of US \$)</b>	<b>85.6</b>
<b>Direct Revenues</b>	<b>58.2</b>
<b>Indirect Revenues</b>	<b>15.1</b>
<b>Induced Revenues</b>	<b>12.3</b>
<b>TAXES (in millions of US \$)</b>	<b>5.8</b>
<b>State and Local Taxes</b>	<b>2.7</b>
<b>Federal Taxes</b>	<b>3.1</b>



1 Bates, Valerie D., “Community Profile,” 2007, [http:// www.portisabel-texas.com/info/profile1.html](http://www.portisabel-texas.com/info/profile1.html)  
2 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-16.





***Figure 13. Port of Port Isabel. Source: Microsoft Live Maps***

## Port of Port Lavaca–Point Comfort

The Port of Port Lavaca is located close to the center of the Gulf Coast. It includes cargo handling facilities along with marinas and other recreational facilities<sup>1</sup> and Texas chemical manufacturing industries.<sup>2</sup> The Port of Port Lavaca also trades with the Caribbean, the Far East, Mexico and South America. This trade resulted in nearly 4.9 million tons of cargo operated by the Port in 2005.<sup>3</sup>

The table below outlines the economic importance of the Port of Port Lavaca to the local economy. The jobs created and revenues and taxes generated by port-related companies in Port Lavaca are shown below.

**Table 13. Port of Lavaca Economic Impact<sup>4</sup>**

<b>JOBS</b>	<b>16,583</b>
<b>Direct Jobs</b>	<b>5,300</b>
<b>Induced Jobs</b>	<b>4,590</b>
<b>Indirect Jobs</b>	<b>6,693</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>988.1</b>
<b>Direct</b>	<b>273.0</b>
<b>Re-Spending / Consumption</b>	<b>469.8</b>
<b>Indirect</b>	<b>245.3</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>2,292.0</b>
<b>Direct Revenues</b>	<b>1,9454.0</b>
<b>Local Purchases</b>	<b>338.0</b>
<b>Related Output</b>	
<b>TAXES (in millions of US \$)</b>	<b>266.7</b>
<b>State and Local Taxes</b>	<b>88.9</b>
<b>Federal Taxes</b>	<b>177.8</b>

\*includes all vessel and cargo activity

1 <http://www.portlavaca.org>

2, 3 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-17.

4 Economic Impacts of the Port of Port Lavaca – Point Comfort and the Matagorda Ship Channel. Martin Associates, 2005



**Figure 14. Port of Port Lavaca. Source: Microsoft Live Maps**

**Port of Port Mansfield** (Willacy County Navigation District)

The Port of Port Mansfield is located in South Texas approximately 31 miles northeast of Harlingen in Willacy County. It is one of the smaller Texas ports and although it has been a base for gulf oil services operations in the past, today it is primarily a fishing community that attracts vacationers from around the state and beyond. Fishing at Port Mansfield takes several forms and there are over fifty fishing guides in Port Mansfield that offer instruction and transportation for both bay and offshore fishing. This is a significant source of income to a community with less than 500 residents. The port also attracts non-fishing visitors who purchase or lease property in the area. There are also RV facilities for so-called “winter Texans,” a substantial number of visitors who spend the colder months in temperate south Texas.

In recent years, the channel leading to the offshore fishing has silted up many jetties, creating hazards for fishermen and inhibiting them from taking advantage of lucrative offshore fishing. Some fishing guides have been forced to relocate to Port Isabel as the channel has become shallower and has at times, damaged their boats. Although bay fishing has remained feasible and has been a source of income to the locals, recently the mouth of the port (in addition to the jetties that provide access to the gulf) has silted to the point that it may close the port. Locals have raised money and acquired a dredging barge, operated with local labor. This should mitigate the risk of imminent closure of the port but it may be infeasible in the long term.

**Table 14. Port of Port Mansfield Economic Impact**

<b>EMPLOYMENT</b>	<b>167</b>
Direct Jobs	102
Indirect Jobs	9
Induced Jobs	56
<b>LABOR INCOME (in millions of US \$)</b>	<b>5.6</b>
Direct	3.6
Indirect	0.3
Induced	1.7
<b>BUSINESS REVENUE (in millions of US \$)</b>	<b>11.3</b>
Direct	6.2
Indirect	0.8
Induced	4.3
<b>TAXES (in millions of US \$)</b>	<b>1.2</b>
State and Local Taxes	0.6
Federal Taxes	0.6

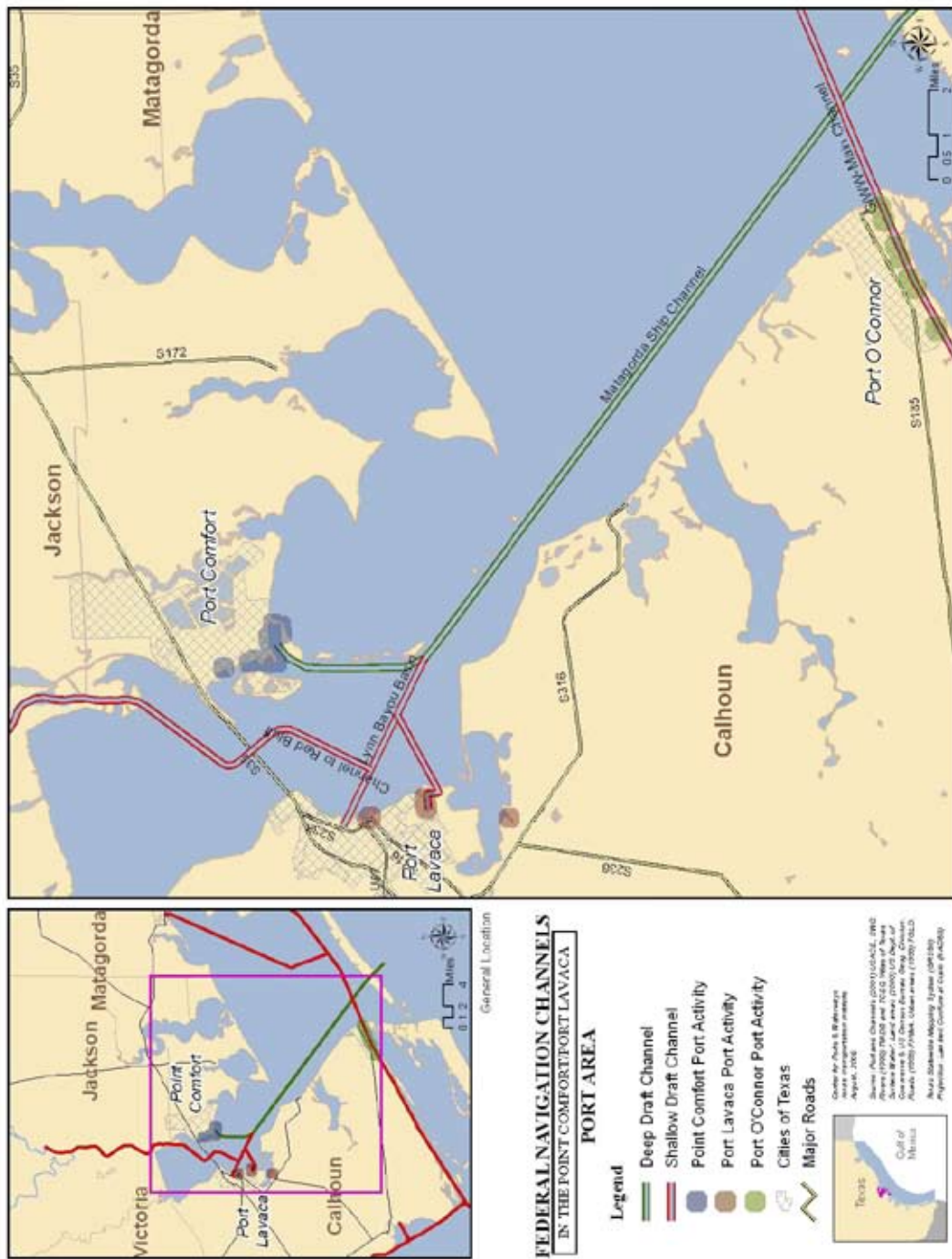


**Figure 15. Port of Port Mansfield. Source: Microsoft Live Maps**



**Figure 16. Port of Port Mansfield's channel. Source: Microsoft Live Maps**









## **Port of Texas City** (Texas City Terminal Railway Company and Port of Texas City)

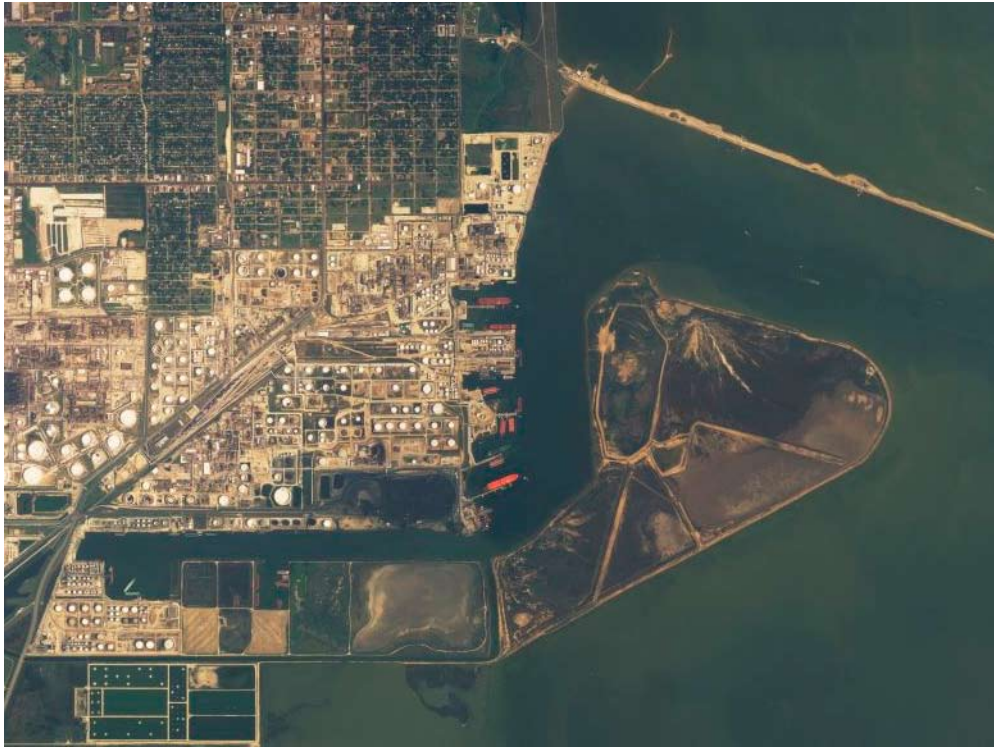
The Port of Texas City is the third largest cargo port in Texas, located approximately 10 miles northwest of Galveston in Galveston County. One advantage of the Port of Texas City is that it has a railway system that is highly integrated with its water transportation system.<sup>1</sup> This facilitates multi-modal movement of cargo including crude petroleum oil and refined petroleum products. The Port of Texas City includes 1500 acres of land leased to various industrial entities that operate petrochemical plants and refineries and tank and terminal facilities.<sup>2</sup> This makes the Port of Texas City one of the most vital ports in petroleum transportation and refining and in 2005, the Port of Texas City handled over 60.5 million tons of cargo.<sup>3</sup>

The regional and statewide impacts of the Port of Texas City, as reported in a report from Martin and Associates dated February 15, 2005 are as follows.

**Table 15. Port of Texas City Economic Impact**

<b>JOBS</b>	<b>15,050</b>
<b>Direct Jobs</b>	<b>4,452</b>
<b>Induced Jobs</b>	<b>4,293</b>
<b>Indirect Jobs</b>	<b>6,305</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>919.5</b>
<b>Direct</b>	<b>260.5</b>
<b>Re-Spending / Consumption</b>	<b>448.1</b>
<b>Indirect</b>	<b>210.9</b>
<b>BUSINESS REVENUE (in millions of US \$)</b>	<b>4.2</b>
<b>LOCAL PURCHASES</b>	<b>663.4</b>
<b>TAXES (in millions of US \$)</b>	<b>248.3</b>
<b>State and Local Taxes</b>	<b>82.8</b>
<b>Federal Taxes</b>	<b>165.5</b>

1 <http://www.railporttc.com>  
2,3 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-24



**Figure 17. Port of Texas City. Source: Microsoft Live Maps**



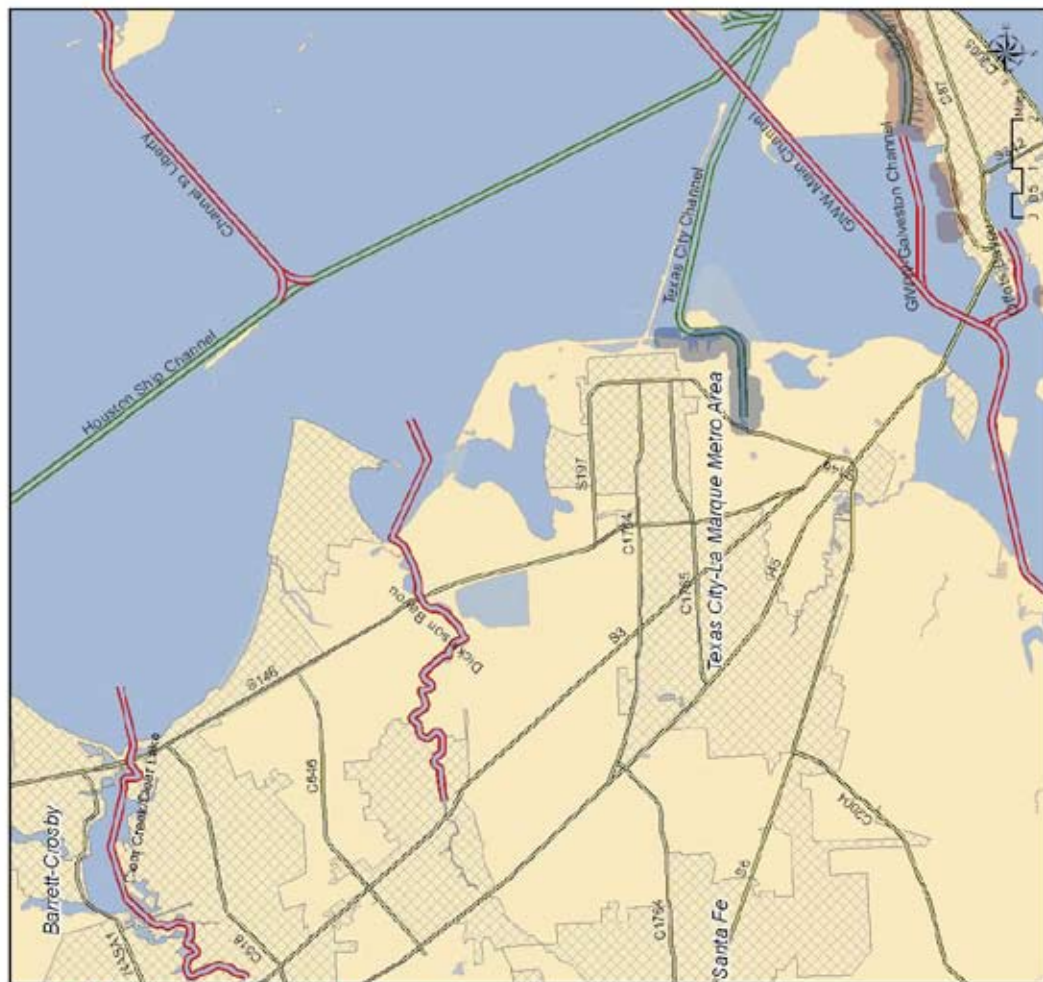
General Location

# FEDERAL NAVIGATION CHANNELS IN THE TEXAS CITY PORT AREA

- Legend**
- Deep Draft Channel
  - Shallow Draft Channel
  - Texas City Port Activity
  - Galveston Port Activity
  - Cities of Texas
  - Major Roads



Center for Public & Environmental Health  
State Transportation Institute  
August, 2002





## Port of Victoria (Victoria County Navigation District)

The Port of Victoria is located approximately 80 miles northeast of Corpus Christi and recent expansions should significantly increase the tonnage operated by the port. These include nearly doubling the size of the harbor and adding a 400 ft by 150 ft barge slip.<sup>1</sup> The Port serves all other ports along the Inland Waterway System within the United States. The main products traded at the port include chemicals and petrochemicals, sand and gravel, grain, project cargo and fertilizers. The Port of Victoria handled nearly 6.3 million tons of cargo in 2005.<sup>2</sup>

The table below demonstrates the economic importance of the Port of Victoria to the local economy, giving the jobs created and revenues and taxes generated by port-related companies.

**Table 16. Port of Victoria Economic Impact<sup>3</sup>**

<b>JOBS</b>	<b>9,235</b>
<b>Direct Jobs</b>	<b>2,896</b>
<b>Induced Jobs</b>	<b>2,685</b>
<b>Indirect Jobs</b>	<b>3,654</b>
<b>PERSONAL INCOME (in millions of US \$)</b>	<b>587.3</b>
<b>Direct</b>	<b>161.8</b>
<b>Re-Spending / Consumption</b>	<b>278.3</b>
<b>Indirect</b>	<b>147.2</b>
<b>ECONOMIC VALUE (in millions of US \$)</b>	<b>1,453.3</b>
<b>Direct Revenues</b>	<b>1,228.5</b>
<b>Local Purchases</b>	<b>224.8</b>
<b>TAXES (in millions of US \$)</b>	<b>158.5</b>
<b>State and Local Taxes</b>	<b>52.8</b>
<b>Federal Taxes</b>	<b>105.7</b>

1 <http://www.portofvictoria.com>

2 Texas Ports 2007 – 2008 Capital Program, Texas Department of Transportation, page A-25.

3 Economic Impacts of the Port of Victoria. Martin Associates, 2005.



**Figure 18. Port of Victoria. Source: Microsoft Live Maps**







## **Appendix A.**

### **Texas Port Directory**

Port of Beaumont (Port of Beaumont Navigation District of Jefferson County, Texas)

1225 Main Street

Beaumont, TX 77704

(409) 835-5367

[www.portofbeaumont.com](http://www.portofbeaumont.com)

Port of Brownsville (Brownsville Navigation District)

1000 Foust Road

Brownsville, TX 78521

(956) 831-4592

[www.portofbrownsville.com](http://www.portofbrownsville.com)

Port of Corpus Christi (Port of Corpus Christi Authority)

222 Power Street

Corpus Christi, TX 78401

(361) 882-5633

[www.portofcorpuschristi.com](http://www.portofcorpuschristi.com)

Port Freeport (Brazos River Harbor Navigation District of Brazoria County, Texas)

200 W. Second St.

P.O. Box 615

Freeport, TX 77542

(979) 233-2667

[www.portfreeport.com](http://www.portfreeport.com)

Port of Galveston (Board of Trustees of the Galveston Wharves)

123 Rosenberg Ave., 8th Floor

Galveston, TX 77550

(409) 766-6100

[www.portofgalveston.com](http://www.portofgalveston.com)

Port of Harlingen (Port of Harlingen Authority)

P.O. Box 2646

4 Miles E on FM 106

Harlingen, TX 78551

(956) 423-0283

[www.portofharlingen.com](http://www.portofharlingen.com)

Port of Houston (Port of Houston Authority)  
111 East Loop North  
Houston, TX 77029  
(713) 670-2400  
[www.portofhouston.com](http://www.portofhouston.com)

Port of Orange  
1201 Childers Road  
P.O. Box 2410  
Orange, Texas 77631  
(409) 883-4363  
[www.portoforange.com](http://www.portoforange.com)

Port of Port Arthur  
P.O. Box 1428  
221 Houston Avenue  
Port Arthur, Texas 77641  
(409) 983-2011  
[www.portofportarthur.com](http://www.portofportarthur.com)

Port of Port Isabel (Port Isabel San Benito Navigation District)  
250 Industrial Dr.  
Port Isabel, TX 78578  
(956) 943-7826  
[www.portofportisabel.com](http://www.portofportisabel.com)

Port of Port Lavaca - Point Comfort  
P.O. Box 397  
Point Comfort, TX 77978  
(361) 987-2813  
[www.portofplpc.com](http://www.portofplpc.com)

Port of Port Mansfield (Willacy County Navigation District)  
400 W. Hidalgo, Suite 200  
Raymondville, TX 78580  
(956) 689-3332  
[www.portofmansfield.com](http://www.portofmansfield.com)

Port of Palacios (Matagorda County Navigation District #1)  
P. O. Box 551  
1602 Main Street  
Palacios, TX 77465  
(361) 972-5556  
[www.portofpalacios.com](http://www.portofpalacios.com)

Port of Texas City (Texas City Terminal Railway Company and Port of Texas City)  
2425 Hwy. 146  
Texas City, TX 77590  
(409) 945-4461  
[www.railporttc.com](http://www.railporttc.com)

Port of Victoria (Victoria County Navigation District)  
1934 FM 1432  
Victoria, TX 77905  
(361) 570-8855  
[www.portofvictoria.com](http://www.portofvictoria.com)





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