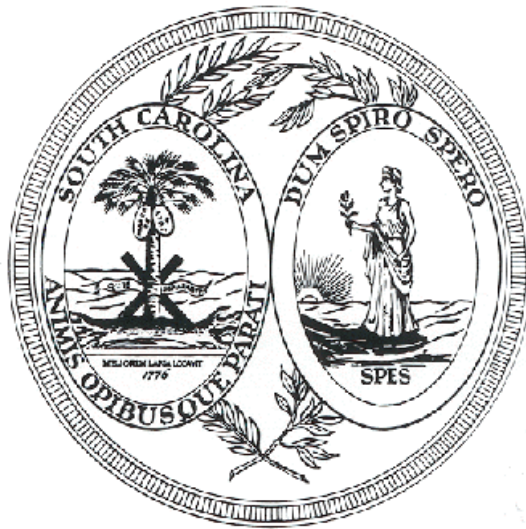


LAC

Report to the General Assembly

March 2002

**Issues Involved in the  
State Ports Authority's  
Expansion Plans**



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# Synopsis

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The South Carolina State Ports Authority (SPA) has been planning to build a new marine cargo terminal complex on a 1,300-acre, undeveloped piece of land it owns on Daniel Island. The full scope of the plans for the \$1.2 billion terminal, called the Global Gateway, were unveiled in a draft environmental impact statement published in September 1999. Almost immediately the plan was opposed by major environmental and citizen groups and local governments in the Charleston area. In June 2000, the General Assembly passed a provision requiring the authority to obtain legislative approval prior to constructing a terminal or railroad on Daniel Island. In February 2001, the SPA announced it was withdrawing the permit for the Global Gateway and was planning a scaled-down terminal on Daniel Island.

Because questions and uncertainties continue to surround the SPA's expansion plans, members of the General Assembly asked us to conduct a performance audit of the authority. Using available information, we reviewed the major issues involved in the proposed terminal expansion. Our purpose was to clarify the information needed by the General Assembly so that it can make an informed decision when the SPA requests permission to build a terminal on Daniel Island. Our findings include:

- ❑ The economic impact of the port is measured in jobs, revenues, and taxes. The SPA attributes a total of 83,085 jobs to port operations. However, only about 5,326 of these jobs are directly created by the port. If the SPA implements its development strategy, additional jobs are projected to occur in the area of port industry employment and indirect "spin-off" jobs, not manufacturing jobs.
- ❑ The SPA's chief customers, and thus sources of revenue, are the containership lines with which it has contracts and major port users which import and export goods. The SPA has reported that South Carolina-based businesses account for about 32% of the cargo imported or exported through Charleston.
- ❑ The SPA's 1998 Business Plan and Project Feasibility Study projected a 5.8% compound annual growth in the numbers of containers shipped through Charleston. We found no evidence that contradicts this projection. Similar rates of growth are projected across different trade routes and for other U.S. ports.
- ❑ The SPA is efficient in the use of its current land assets. We found, however, a wide variation in the SPA's use of container storage space and room for improvement in the management of empty containers.

- ❑ Other factors that are driving the perceived need for a new terminal include SPA's concern that it could lose a major containership contract, its need for new sources of revenue, its competition with the port of Savannah, and general shipping trends such as the increase in vessel size, which in turn places additional demands on ports to provide larger berths and more space for container storage.
- ❑ The draft environmental impact statement (DEIS) did not completely address possible environmental impacts of SPA expansion plans on Daniel Island, and the process was terminated when the SPA withdrew its request for the Global Gateway permit. However, major questions remain about the destruction of wetlands, traffic congestion, dredging, and the impact on air and water quality. At least one state agency has commented that Daniel Island may be the least desirable terminal location from a natural resource or social perspective.
- ❑ The SPA projects that the first phase of a new terminal on Daniel Island will cost \$451 million. However, this does not include funds already expended (\$56.6 million); the cost of a railroad; and improvements to existing interstate roads. The source of funding is also problematic. SPA's own revenue sources are inadequate. It may not be feasible to attract private funding, and there are already other priorities and commitments for funding with state general obligation bonds.
- ❑ Prior to 1992, the SPA investigated several potential terminal sites in the Charleston harbor. Excepting the former Navy Base in North Charleston, which was studied several times, the SPA did not seriously consider other sites for a new terminal once it bought the land on Daniel Island in 1992. An important part of the DEIS process also was to consider alternatives to the proposed Daniel Island site. The DEIS has been criticized for its analysis in this area; it relied on information provided by the SPA's contractor and did not provide an in-depth analysis of the alternatives.
- ❑ A plan to develop a container terminal on the Savannah River in Jasper County presents an opportunity for a new, large-scale container terminal. Under the same criteria that the SPA has applied to Daniel Island, the Jasper County site is comparable or superior in most areas.
- ❑ We reviewed the extent to which the State Ports Authority is accountable to the General Assembly and the public. The SPA has been given broad powers by its statutes, and legislative controls over the authority are limited.



- We found that the SPA has attempted to charge Freedom of Information Act requesters thousands of dollars for non-confidential information. This may discourage requesters from obtaining needed information on SPA decisions which affect the public.

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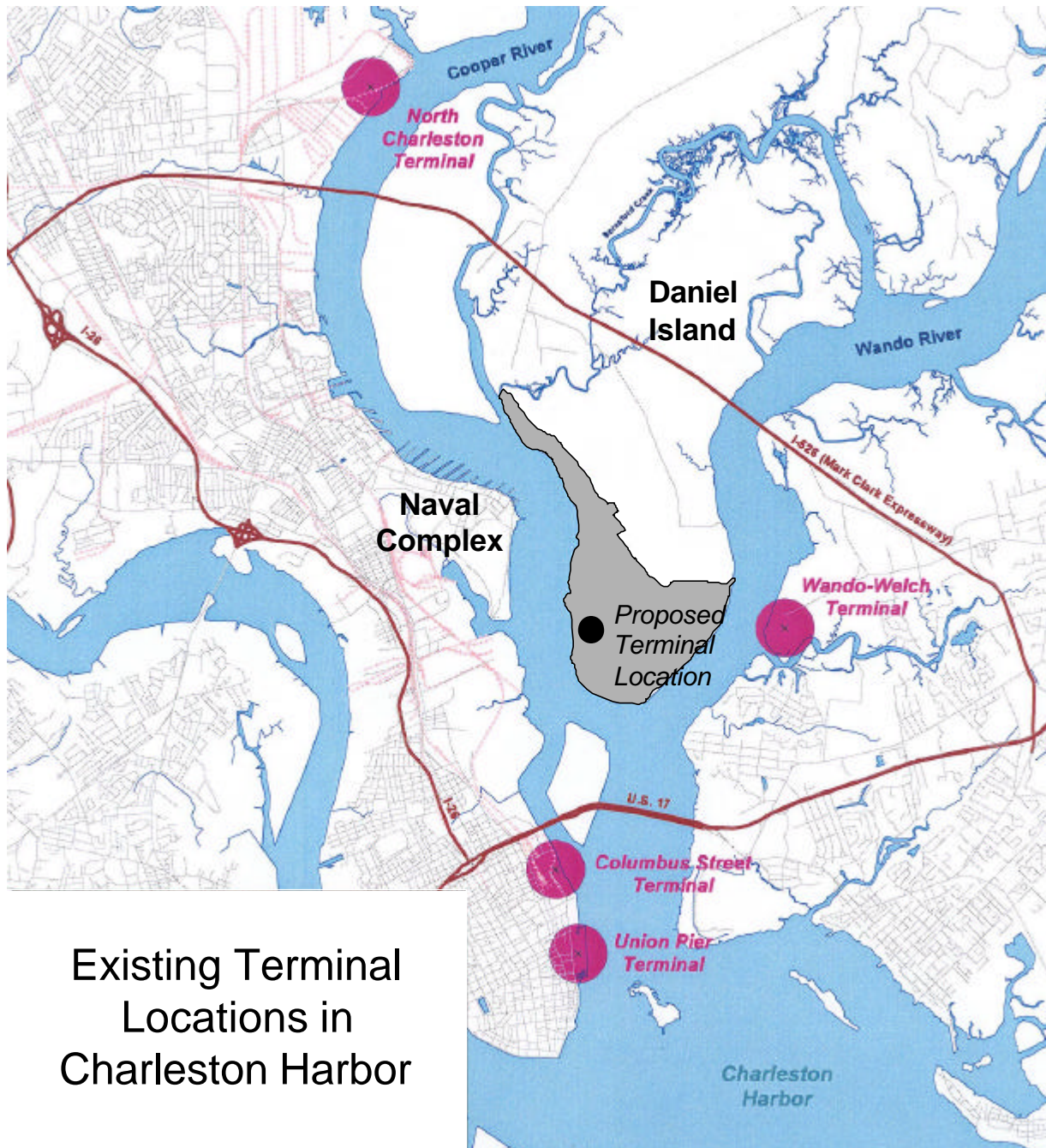
## Conclusion

The issue that will come before the General Assembly is whether to grant the State Ports Authority permission to build a new terminal and railroad on Daniel Island. It will be difficult for the General Assembly to make an informed decision until the SPA reports more fully on certain critical issues:

- The impact of port traffic on area roads and interstates;
- How the impact on wetlands will be mitigated;
- The potential cost and ultimate size of a terminal on Daniel Island;
- The source of funding for a new terminal; and
- Steps the SPA is taking to address the storage of empty containers.

The General Assembly will have to weigh the advantages with the disadvantages of expanding the port — whether, for example, the net economic gain outweighs the potential adverse consequences for the environment and the projected increase in traffic. Likewise, the SPA contends that, if it doesn't expand, it could lose a major containership contract. This should be weighed against projections that the increase in global container trade will create enough demand so that both Charleston and its competitor, the port of Savannah, will have enough business to support both ports.

A possible terminal site on the Savannah River in Jasper County has emerged as a viable alternative to building on Daniel Island. While there are unresolved legal and environmental issues, a terminal on the Savannah River in Jasper County could deliver the same terminal capacity and economic development benefits as an SPA terminal on Daniel Island, but without many of the major drawbacks. It has been suggested that South Carolina and Georgia, instead of competing, should cooperate to develop a regional port on this site. Therefore, the General Assembly may wish to more fully explore terminal development opportunities on the Savannah River in Jasper County before it votes on a terminal on Daniel Island.



Existing Terminal Locations in Charleston Harbor

Outlined area on Daniel Island represents the 1,300 acres owned by the SPA.

# Introduction

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## Background

The South Carolina State Ports Authority (SPA) is the agency responsible for operating the state’s public seaports and harbors. S.C. Code §54-3 *et. seq* describes the purpose of the SPA, “In general to do and perform any act or function which may tend to or be useful toward the development and improvement of such harbors and seaports of the State . . . .” The authority has jurisdiction over the waters and shores of the state’s harbors as well as the rivers and creeks flowing into them, and the ability to regulate vessels entering these waters. The mission of the Ports Authority is to contribute to the economic development of South Carolina by fostering and stimulating water-borne commerce and shipment of freight.

The SPA currently operates four main terminals in the Charleston area — Wando-Welch, North Charleston, Columbus Street, and Union Pier (see map on p. viii). It also operates two smaller terminals outside the Charleston harbor, one in Georgetown and one in Port Royal, which handle bulk products such as grain, minerals, and steel.

The SPA is primarily an “operating port.” That means it actively manages the docking, scheduling, loading, and unloading of ships; handles and tracks cargo; manages storage of containers and bulk goods; and manages the movement of cargo in and out of the terminal gates. The SPA currently has about 600 employees. In addition, other maritime groups play a major role in the activities of the port, including stevedoring companies, the International Longshoremen’s Association, harbor pilots, shipping companies, U.S. Customs officials, brokers, truckers, and warehouse operators.

The primary sources of SPA’s revenues are the fees it charges to ships docking at the port and for cargo-related services. The SPA also has the ability to raise capital through the sale of revenue bonds, which are backed by its own earnings. It currently has \$150 million in bonds outstanding to finance long-term capital improvements to its terminals. The following table presents the authority’s revenues, expenses, and earnings for FY 99-00 and FY 00-01.

**Table 1.1: SPA Revenues and Earnings — FY 99-00 to FY 00-01**

	<b>FY 99-00</b>	<b>FY 00-01</b>	<b>% CHANGE</b>
Operating Revenue	\$97,504,000	\$104,655,000	7.3%
Operating Expenses	\$76,809,000	\$85,860,000	11.8%
Operating Earnings	\$20,695,000	\$18,795,000	-9.2%
Net Earnings*	\$20,834,000	\$18,394,000	-11.7%

\*Earnings after non-operating income/expense and extraordinary losses.

Source: SPA Audited Financial Statements.

About 80% of SPA's revenues are generated by its container business segment. The larger shipping lines, under "licensed operator" contracts, lease space at the terminals to store their containers and manage their own container yard and terminal gate. Other shipping lines have "common user" contracts, in which SPA personnel provide the yard and gate services. All ships are loaded and unloaded by cranes operated by port personnel. Most of the contracts specify a fixed charge per container, usually at a discount from the published tariff. The bulk of SPA's revenues are based on contract rates, not the published tariff. Statistics in trade journals show that in 2000 the port of Charleston was the fifth busiest container port in the U.S.

In 1992, the SPA began purchasing land on Daniel Island, located in the Charleston harbor, for a new terminal location. Beginning in 1997, the authority held a series of meetings with its engineering consultant, state agencies, and citizen groups to initiate the permitting process. The full scope of the SPA's plans for the new terminal, called the "Global Gateway," were unveiled in a draft environmental impact statement in September 1999. The plans envisioned a \$1.2 billion terminal that would be built over 20 years on 1,300 acres and eventually handle close to two million containers.

Almost immediately the plan was opposed by major environmental and citizen groups and local governments in the Charleston area. In June 2000, the General Assembly passed a provision requiring the authority to obtain legislative approval prior to constructing a terminal or railroad on Daniel Island. In February 2001, the SPA announced it was withdrawing the permit application for the Global Gateway and was planning a scaled-down terminal on Daniel Island.

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## Objectives

Because questions and uncertainties continue to surround the SPA's expansion plans, members of the General Assembly asked us to conduct a performance audit of the authority. After consulting with the audit requesters, we defined our objectives as follows:

- Review the economic impact in South Carolina of port operations.
- Determine the percent of cargo handled by the Ports Authority that originates from or has a destination within the state.
- Review the source of statistics, figures, and other data used by the authority in public documents and hearings to justify the need and proposed location for the port expansion, and determine whether these figures can be verified.
- Review the draft environmental impact statement and any other sources of data regarding the positive and negative impacts of the proposed port expansion on Daniel Island.
- Determine whether the authority actively considered alternative sites for port expansion.
- Determine the kinds of information and statistics the authority keeps regarding its operations and whether this information is publicly available.
- Determine whether the authority has any performance indicators; whom it is accountable to; and what types of reports it is required to produce.

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## Scope and Methodology

This audit primarily covers the period of 1997 through 2001. We also reviewed the process followed by the SPA from 1987 to 1992 when it began planning for the expansion of its terminals. We reviewed the operations of the Ports Authority only to the extent that they were related to the audit objectives listed above.

Information for our review was obtained from multiple sources, including:

- Interviews with the SPA staff and the SPA consultant who developed its business plan.
- Interviews with staff from U.S. Customs, U.S. Army Corps of Engineers, and S.C. state agencies including the Department of Commerce, the Department of Natural Resources, the Department of Transportation, and the Department of Health and Environmental Control.
- Interviews with members of groups opposed to port expansion on Daniel Island, including “More than a Port,” “Contain the Port,” and the Coastal Conservation League.
- Interviews with local officials from Charleston and Jasper County, and on-site visits of SPA terminals as well as the proposed terminal site on the Savannah River in Jasper County.
- Interviews with members of the South Carolina Trucking Association and the port of Charleston Maritime Association, which included representatives from the International Longshoremen’s Association and other port industry groups.
- The SPA Business Plan and Project Feasibility Study of April 1998 and the Draft Environmental Impact Statement of September 1999, as well as numerous other studies related to proposed locations for port expansion.
- State statutes and the Ports Authority’s published tariff.
- SPA contracts, audited financial statements, capital improvement plans, internal financial reports, board minutes, and Freedom of Information Act correspondence.
- General research related to international shipping and the maritime industry.
- Correspondence from state and local chambers of commerce as well as from other business associations.
- Written and telephone surveys of other state port authorities.

We reviewed the information systems used by the SPA to track cargo shipped through the port. Most of this information is generated by U.S. Customs and is downloaded by the SPA through an automated manifest system. We determined what controls both the SPA and U.S. Customs have over the reliability and accuracy of this data, but did not perform any tests ourselves. Overall, computer-generated data were not central to the objectives of this report. This audit was conducted in accordance with generally accepted government auditing standards.

# Economic Impact of the Port

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## Jobs and Economic Benefits Reported by the SPA

Audit requesters were interested in the overall economic impact of the port and how it benefits South Carolina citizens and businesses. There is no doubt that the port of Charleston is important to the economic welfare of the state, but quantifying these benefits is difficult. However, the economic impact of the SPA will have to be considered by the General Assembly when it is asked to approve a new terminal on Daniel Island. Any net gain in the economic benefits produced by the port — more jobs, sales revenues, and taxes — should be weighed against the financial investment required as well as the negative environmental consequences of a new terminal. In this section we review information available on the impact of the port and terminal expansion on the South Carolina economy. Our conclusions are:

- ❑ Most of the 83,085 jobs attributed to the port are not directly generated by the port.
- ❑ The growth in port-related employment, if the SPA implements its development strategy, is projected to occur in the area of port industry employment and indirect “spin-off” jobs, not manufacturing jobs.
- ❑ About 32% of the cargo handled at the port of Charleston is imported or exported by a South Carolina business.

The SPA has used its 1998 Business Plan and Project Feasibility Study, prepared by Mercer Management Consulting, to illustrate the economic impact of the port and to devise a long-term container capacity development program. The economic impact of a port is primarily measured in jobs, sales revenues, wages, and taxes. We reviewed the methodology used to project the number of jobs attributed to the port.

The Mercer study estimated that, based on 1997 data, the SPA generated 83,085 jobs for the state’s economy. The report broke the number down between “direct jobs” and “indirect jobs.” Although the Mercer study reported 37,141 “direct jobs,” we concluded that only the 5,326 port industry jobs are directly generated by the port. Port industry jobs include those for stevedores, the longshoremen’s union, truckers, cargo brokers, freight handlers and other maritime employment. These jobs would not be in Charleston unless the port was located there, and the number of these jobs is affected by the volume of cargo that flows through the port.

**Table 2.1: Port-Related Jobs Reported in Mercer Study**

<b>TOTAL JOBS ATTRIBUTED TO SPA</b>	<b>83,085</b>
Direct Port Industry Jobs	5,326
Import and Export Jobs (Port Users)	31,815
Indirect Jobs Based on Multiplier Effect	45,944

Source: South Carolina State Ports Authority Business Plan and Project Feasibility Study.

The remaining “direct jobs” are 31,815 jobs that are linked to “port users,” which are businesses from a wide range of industries, such as textile and apparel, transportation equipment, machinery and electrical equipment, chemicals, rubber, and plastics, paper and printing, and trade and services. Mercer counted the jobs directly related to import/export activity of the shippers using the port. The SPA does not “generate” or create these jobs directly but rather facilitates them by creating the port infrastructure.

The 45,944 indirect jobs reported in the study are based on “input/output tables” created by the Bureau of Census. Indirect impacts result from the purchase of goods and services by port industry and user businesses. This stimulates further spending throughout the state’s economy resulting in a “multiplier effect.” An example would be that a person in a ‘direct job,’ such as a stevedore, would spend his net wages in the community for food, gas, clothing, etc. Those merchants would pay their employees, who, in turn, spend the money again.

### **Standard Methodology Used**

The methodology used by the SPA’s consultant has been used by other ports to quantify their impact on their state’s economy. Mercer used the Port Economic Impact Kit (Port Kit), developed by the U.S. Maritime Administration to assess the economic impact of maritime-related activities. The approach focuses on many sections in the economy and mathematically calculates the total economic impact or multiplier effect of port activities. The port authorities in North Carolina and Georgia, for example, each attribute 80,000 jobs to port operations (in a 1999 Southern Legislative Conference report.)

Neither Mercer Management Consulting nor the chief consultant for the study . . . were able to provide us the surveys and complete data. . . . Consequently, we were not able to verify all of the numbers.



The data for the economic impact analysis was obtained through surveys sent to 325 SPA customers in South Carolina, or approximately 10% of its total customer base, according to the SPA. The survey was targeted at three groups — port industry (79 surveys), port users (144 surveys), and inland transportation providers (102 surveys). The SPA reported that 47% of the survey forms were returned. Mercer used information provided by the SPA to choose the sample and analyze the responses. The SPA also provided support staff to mail and collect the surveys.

According to the SPA, no economic impact analyses other than the Mercer study have been performed. Neither Mercer Management Consulting nor the chief consultant for the study (who is no longer with Mercer) were able to provide us the surveys and complete data supporting the numbers and conclusions of the Mercer report. Consequently, we were not able to verify all of the numbers. Since the SPA has based a large part of its terminal development strategy on the Mercer report, it should have retained all the supporting documentation.

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## Gain in Jobs from Proposed Expansion

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Mercer projected that the “successful” implementation of the SPA’s terminal development strategy would increase port-related jobs to 101,078 by 2017, with an average of 91,784 sustained jobs. This job growth was projected to occur mostly in the direct port industry jobs and the indirect jobs linked by the multiplier effect to the direct employment. The 5,326 port industry jobs — stevedores, longshoremen, truckers, and others directly involved in cargo handling — were projected to increase by 150% within 20 years. The indirect jobs calculated by the Port Kit model were projected to increase by 133%. The Mercer report did not attribute any new jobs by port users — i.e., manufacturers and importers/exporters — to future SPA growth. According to its consultant, there was no reliable basis for projecting job growth in these areas.

The draft environmental impact statement (DEIS), in the portion dealing with socio-economic projections, estimated that, even without a new terminal, port-related employment would continue to grow. The DEIS projects total employment attributed to the port would be 90,558 by 2020. The DEIS estimation was based on the assumption that the SPA would continue to operate at a steady 5.2% increase in cargo through 2004 when the capacity of the existing terminals would be maximized. The DEIS also based its analysis on the data provided by the Mercer report.

The net impact of building a Daniel Island terminal, therefore, could mean anywhere from 1,226 to 10,520 new jobs, largely in the port industry sector and the resulting “spin-off” in indirect jobs.

We did not focus our review on the data reported for sales revenues, personal income, and taxes. We did note, however, the SPA’s consultant included port-related capital expenditures for terminal facilities, equipment, and dredging in determining the economic benefits to the state. The benefits from capital construction would accrue to the state regardless of the type of industry or project that was built.

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## Impact on South Carolina Businesses

Audit requesters wanted to know how the SPA affects state businesses in terms of how much of the cargo shipped through the port is imported or exported by a South Carolina business. U.S. Customs is the source of data on the amount of cargo imported and exported in the country. The Port Import Export Reporting Service (PIERS), a proprietary electronic data service of the *Journal of Commerce*, obtains Customs data and matches it with other information to create a comprehensive database about maritime cargo and global shipping. The SPA used statistics prepared by PIERS in 1999 to estimate that 24% of export cargo and 39% of import cargo originates from or is destined for South Carolina, for an overall cargo share of 32%. There have been problems with using this data to determine the exact origin or destination of goods, however. Some of the problems in the database are:

- Companies can disguise their names.
- There is no requirement that fields for ‘state’ or ‘origin/destination’ be filled in.
- The data in the consignee field can be the shipper, broker, freight forwarder, or others.
- The data may reflect a company’s billing address rather than place of delivery or origin.

In addition, PIERS data was based on total tonnages shipped through the port of Charleston customs district, which amounted to more than 15.5 million tons in 1999 and included private terminals as well as the SPA’s terminals and both containerized and breakbulk cargo. Because of these factors, it is difficult to confirm the accuracy of the SPA’s conclusion that 32% of the cargo was related to S.C. businesses. In making this estimate, SPA staff counted all the cargo shipments which did show South Carolina as the origin or destination, and then included a portion of the remaining cargo where the “state” and “origin/destination” fields were not filled in. In order to arrive at

a more accurate conclusion, the SPA would have to review individual shipments to make sure the consignee was actually a South Carolina business. Given the amount of cargo that is shipped through the port, this would be an onerous task. Therefore, we concluded that the SPA's approach was reasonable, and that 32% is most likely the best estimate available.

Also, SPA officials have noted that the South Carolina market alone is too small to use or supply the majority of the cargo that passes through the port. Containership lines would not call on Charleston for such limited loads. It is more accurate to view Charleston as a regional port that serves states in the southeast as well as Tennessee, Kentucky, and other states further inland.

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## Needs of the SPA's Customers

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Customers of the State Ports Authority include containership lines, port users, and port industry firms. The chief customers of the SPA are the global cargo carriers with whom it has contracts. Sixteen of the world's 20 largest container lines call on the port of Charleston, and the SPA has 31 contracts with individual containership companies.

In addition, the SPA has 42 contracts with the major importers/exporters and manufacturing firms for additional services, such as preparing cargo for shipment or unpacking containers. According to the SPA, more than 600 port user firms import and export cargo via its facilities. While the SPA obtains its revenues directly from the containership lines, import/export businesses and manufacturers are also the port's customers since they hire the containership lines which transport their goods via the port.

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In conclusion, the economic impact on shippers and port users (businesses which ship through the port) is extremely difficult to quantify.

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Correspondence from local and state chambers of commerce and business and industry groups indicates strong support for the SPA's expansion onto Daniel Island. The SPA has also stated that it wants to expand onto Daniel Island in order to meet the needs of Charleston-based customers as well as South Carolina businesses. The Mercer report likewise stated that, should the SPA be unable to implement its container terminal development strategy, state businesses would lose revenues and incur higher costs to ship via other ports. However, the Mercer report does not provide any further information or explanation to support this projected negative outcome.

In essence, one question that the General Assembly may be asked to consider is — "What would be the negative impact on South Carolina companies if the SPA were unable to build a terminal on Daniel Island and subsequently lost containership business to ports in other states?"

Research we reviewed concludes that advances in containerization have made it cheaper and easier to ship cargo, and therefore, it is no longer necessary for a business to be located close to a port in order to reduce its shipping costs. Advances in inland freight transportation, which make it cheaper to ship goods by truck or train, have also reduced importers/exporters' reliance on water transportation. Port customers are now more distant from port cities, and economic impacts on these cities from port activities have diminished over time. The cost to transport goods makes up a very small share of the business expenses of even major maritime freight customers. "Even large changes in water transportation costs would likely change overall costs in other industries very little."<sup>1</sup>

In some instances, the distance between a shipper and a port can add to transportation costs. For example, the SPA gave us information which showed mileage-based trucking rates tend to range between \$1.10 to \$1.25 per mile. If a company located in Greenville, for example, had to use the port of Savannah instead of Charleston, the difference in "practical" highway miles would be 46 miles. Therefore, the estimated increased cost would be from \$50 to \$57 each way or about \$100 round-trip per container.

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. . . the volume of containerized cargo is projected to increase overall, with both the port of Charleston and the port of Savannah eventually operating at capacity.

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However, this is only one possible scenario. In fact, according to the SPA's consultant, there are many factors which go into the price of transporting cargo, and it is impossible to generalize how a shipper's distance from a port might affect its costs. Other factors offset mileage, such as the balance of trade. If imports equal exports, then trucks will be carrying a full load each way, and the cost is split between two cargos. Also, sometimes containership companies give a single combined rate to shippers which includes the cost of inland transportation. Manufacturers that ship large volumes are also not as affected by the distance to the nearest port.

In conclusion, the economic impact on shippers and port users (businesses which ship through the port) is extremely difficult to quantify. As previously stated, the economic benefits of the SPA are most directly felt by the maritime industries and not necessarily by the inland manufacturers. Mercer did not include job growth in the manufacturing sector as part of the future economic impact of port expansion, because there is no reliable method for doing so. The SPA's consultant also told us that the potential for harm to shippers, should the port fail to expand, is more in terms of the frequency and geographic coverage of ocean services. Whereas today port users may have a choice between multiple ships calling at Charleston each week, this choice

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<sup>1</sup> Amy Helling and Theodore H. Poister, Georgia State University. "U.S. Maritime Ports: Trends, Policy Implications, and Research Needs." Economic Development Quarterly, Vol. 14, No. 3, August 2000.

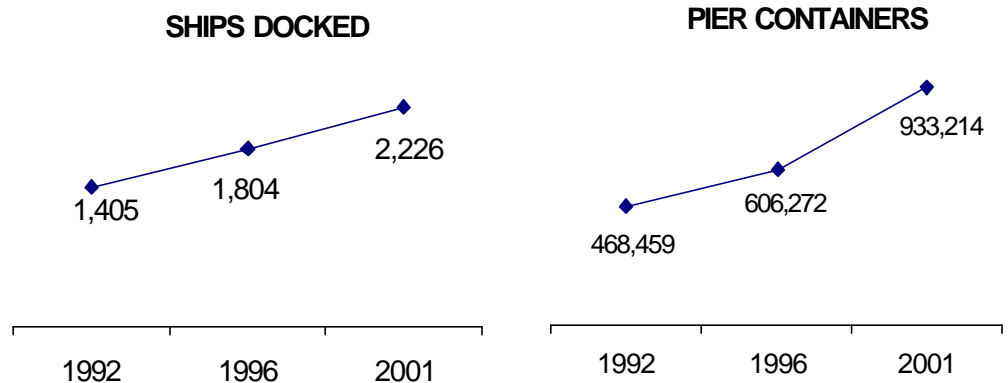
could become limited should Charleston lose a significant volume to another port. However, as noted on page 18 of our report, the volume of containerized cargo is projected to increase overall, with both the port of Charleston and the port of Savannah eventually operating at capacity.

## Growth Projections for Container Volume

Audit requesters were interested in the source and validity of the data used to determine the need for port expansion. The primary source of the projections underlying the need for increased port capacity was the 1998 Business Plan and Project Feasibility Study (Mercer report), which projected a 5.8% annual growth rate in the number of containers shipped through Charleston. By 2019, this would result in 4 million TEUs, more than doubling the port's 2001 volume of 1.6 million TEUs. [Containers are usually expressed in TEUs or "twenty foot equivalent units"; most containers are either one TEU (20 feet) or 2 TEUs (40 feet) in length.] This increase in container traffic is the chief justification used by the SPA in its quest to build a new terminal.

We found no evidence that contradicts this projection. For example, the Mercer study found increases not just for the Charleston port but across the South Atlantic and other trade zones. The following graph shows the increase in the number of ships docked and container volume at the port, an increase of 58.4% and 99.2%, respectively, over the past ten years.

Graph 2.2: 10-Year Growth in Number of Ships and Containers



Each container is approximately 1.7 TEUs.

Source: SPA records.

According to a Southern Legislative Conference report, between 1995 and 1999, 17 southern ports accounted for approximately one-third of the TEUs transported in the United States. The volume of TEUs in those ports increased 37% over the five-year period. An estimated 55% of all general cargo is moved by containers, and shipping experts project that 90% of all international liner freight will be shipped in containers by 2010. Data from other state port authorities (see Table 4.3, p. 43) show that these ports have experienced similar increases in cargo volumes over the past few years.

In this section we reviewed questions related to the growth in cargo volume, such as whether the SPA is trying to become more efficient in using the space it has. We found that while the SPA has become more efficient in using terminal assets, there is some room for improvement. Also, the authority is planning a \$320 million capital improvement program for its existing terminals. If the SPA is able to more fully use the capacity of its existing terminals, it may be able to further postpone the need for a new terminal.

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## Improvements in Efficiency and Capacity

SPA is currently improving the efficiency of existing terminals in order to meet the demand for additional container storage space. Capacity can be increased by more efficiently and effectively using available assets, and one measure of this is “throughput” or the number of containers handled per acre of terminal container space. We found that the SPA is becoming more efficient in this measure — average throughput increased from 2,817 TEUs per acre in 1997 to 3,731 TEUs per acre in 2001. We compared the throughput at the SPA’s terminals with other ports on the East Coast, and the SPA was the second most efficient (see p. 44).

Other factors also influence efficiency and thus capacity of a port, such as how fast the cranes can load and unload a ship at the dock and the ability of the transportation system to move containers to and from the terminals. SPA officials have indicated that the area where they are experiencing capacity problems is in terminal space, i.e., that part of the terminal or “yard” which is used to store containers before they are loaded onto the ship or a truck. The two most important factors driving throughput are “dwell time” (the amount of time a container remains in the terminal) and the density of container storage. The authority currently stacks containers three to four high in an effort to increase utilization of yard space, and has planned capital improvements to allow it to stack even higher. This has helped the SPA to increase its throughput 32% since 1997.

It is difficult to determine what improved throughput means for the SPA's future need for more terminal space. For example, we noted a large variation in throughput per acre between individual terminals and also between the licensed operator areas and the common user areas. Licensed operators are the larger shipping lines which lease terminal space and manage their own container storage space. Other shipping lines share a common user terminal space managed by the authority. An analysis of SPA's throughput per acre shows that the licensed users and the Wando-Welch terminal are the most efficient. The increased productivity of Wando may be due to it being the newest terminal with the most up-to-date cranes.

**Table 2.3: Annual TEU Throughput per Acre**

	1999	2000	2001
<b>North Charleston Terminal</b>			
Common User	1,814	2,175	2,492
License Operator	2,552	3,143	2,766
Total Terminal	2,220	2,677	2,618
<b>Columbus Street Terminal</b>			
Common User	2,673	1,565	1,899
License Operator	3,735	4,156	4,221
Total Terminal	3,192	2,861	4,070
<b>Wando-Welch Terminal</b>			
Common User	3,818	3,243	4,198
License Operator	3,526	4,573	4,298
Total Terminal	3,607	4,085	4,251

Source: SPA records of TEUs shipped through each terminal and net storage acres for each terminal.

The Mercer study reported in 1998 that by 2001, the SPA should be operating at 75% capacity with a total of 1.5 million TEUs *if* it could make certain improvements in efficiency. Recent data from the SPA shows that it handled 1.6 million TEUs in FY 00-01. If all three terminals were as efficient as Wando (4,251 TEUs per acre), then the SPA could handle 1.9 million TEUs per year based on current acreage of the container yards. The Mercer report projected that 2 million to 2.4 million TEUs would be the point at which the port would be operating at full capacity with significant congestion. Further analysis may be needed to determine if, in fact, 2.4 million TEUs is the upper limit the SPA can handle with existing terminals.

Any discussion of increased capacity is not complete without considering the ability of the road and railway system to efficiently move containers on and off the terminal. Increased terminal space is not enough to improve overall capacity if cargo is delayed due to traffic congestion. The Mercer report did not review transportation issues in conjunction with its capacity analysis.

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## Effect of Capital Improvement Spending

During FY 01-04, SPA anticipates capital spending of about \$180 million to expand capacity at its three container terminals — Wando, Columbus Street, and North Charleston. Total planned capital spending for 2002 through 2008 is more than \$320 million. The purpose of the planned improvements is to maximize capacity at existing terminals as well as to meet specific demands of the containership lines which use the terminals.

However, SPA officials have stated that, even with the investments in capital improvements and terminal yard capacity, they expect to run out of space by 2007, as projected by the Mercer study. The \$320 million in expenditures will also strain the SPA's own revenues and debt service capacity. Net earnings as a percent of revenues are projected to decrease from 17.6% in FY 00-01 to 5.8% by 2008. Therefore, the planned capital improvement spending will not make the SPA more efficient in terms of operating profits, and apparently will not forestall the need to expand the terminal.

On the other hand, most of the capital improvements planned by the SPA have not yet occurred, and it is conceivable that they could help increase throughput per acre. A higher throughput per acre can decrease the need for additional container storage space.

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## Dwell Time for Empty Containers

The SPA could also improve its use of terminal space by better management of empty containers. Many of the contracts with the containership lines limit the amount of time that empty containers may dwell in the terminal without penalty. The limit is usually 14 days. The licensed operators manage their own yards, and their length of dwell time for both empty and loaded containers is not known. We found that the SPA has not enforced provisions regarding the length of time empty containers remain on the common user areas of the terminals. Each container is listed on a daily report by container number, and the report also shows the number of days that the container has been in place. The report is updated daily, based on the number of containers coming in and going out of the common user yards. Numerous entries exceed the 14-day limit; many range from 100 to 500 days.



Authority management acknowledged that they have not compiled dwell days for empty containers; therefore, the shipping lines that own the delinquent containers have not been assessed penalties. SPA management explained that their current computers are not capable of compiling such data from the daily reports, but they are implementing a new yard management system that will have the capacity to deal with the empties. SPA's 1999 Strategic Plan also addressed empty containers as a high priority issue, stating "Dwell times for empty containers will need to be reduced."

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SPA officials have indicated that the scaled-down terminal on Daniel Island could eventually comprise 700 to 1,000 acres.

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Container sprawl is a problem at all U.S. ports. Expensive stacking equipment and changes in labor requirements may help reduce the dwell time that containers sit idle in terminals. Industry analysts agree that the flow of containers could be speeded up if ports restricted the length of time they allowed containers to be stored without paying extra charges, but competition with other ports makes it difficult to reduce free time. According to SPA management, they will start assessing storage charges in March 2002 for containers which remain on the terminal longer than the storage times allowed by contract.

Also, we noted that there are 129 acres of usable but undeveloped land at the Wando-Welch terminal. Twenty-five acres are planned for container storage space for one of the licensed user contracts. Another project is to include 30 – 40 acres to expand the empty yard, which is for short-term storage of empty containers. According to SPA officials, it may be difficult to obtain the permits needed to develop the remaining 64 acres because of new Charleston County land-use ordinances.

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## Potential Capacity of Daniel Island

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The initial phase of a scaled-down terminal on Daniel Island is planned to have a 200-acre container yard and take almost eight years to complete. At Wando terminal's present throughput capacity, this would enable the SPA to handle an additional 850,200 TEUs, for total port capacity of about 2.4 million TEUs per year. The Mercer report projects this level of container traffic to occur by about 2011, given a 5.8% rate of growth.

Even if construction on a Daniel Island container terminal began this year, by the time the first 200 acres were built the SPA would again be reaching the limits of its capacity. The Mercer container demand forecast stopped at 4 million TEUs by 2019. At the present throughput rate for the Wando-Welch terminal, the SPA would need to add a container yard of about 560 acres on Daniel Island. This does not include the acreage needed for other types of cargo, warehouses and support building, roads, and parking lots.

SPA officials have indicated that the scaled-down terminal on Daniel Island could eventually comprise 700 to 1,000 acres.

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## Recommendations

1. The State Ports Authority should continue to seek ways to be more efficient with the available container storage space.
2. The State Ports Authority should seek permits to develop the remaining acreage at Wando-Welch terminal.
3. The State Ports Authority should track the length of time empty containers dwell in excess of days limited by the contracts, enforce contract provisions regarding container storage, and charge fees for excess storage.
4. If the State Ports Authority requests permission to build a new terminal on Daniel Island, it should provide information to the General Assembly on the potential throughput per acre anticipated and the ultimate size of a terminal that would be needed over the next 20 years.

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## Other Reasons Cited for a New Terminal

In addition to the pressure on terminal capacity caused by the increase in containerized cargo, other factors drive the SPA's perceived need for a new terminal on Daniel Island. Chiefly, the State Ports Authority fears the loss of a major contract and subsequent loss of revenue, if it cannot meet the needs of the global container carriers in the future. Trends in the shipping industry and increased competition from other ports are factors underlying the SPA's concern.

However, the price of such competition is high. The capital improvements needed to accommodate the increased volume — newer cranes, more container yard space, and new technology systems — are expensive. Newer ships are bigger and require deeper dredging and pose other environmental problems. The need to move large numbers of containers to and from the port results in significant traffic congestion or the need to build new roads. One solution — possible cooperation between South Carolina and Georgia — has been suggested but was not acted upon by the SPA board.

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## Trends in the Shipping Industry

Two major changes in the container shipping industry have direct impact on the port. First, the industry has been consolidating through mergers and acquisitions, and also through alliances called “consortiums.” Increasingly fewer containership lines are carrying more of the cargo. Second, in order to achieve economies of scale, companies have been using larger and larger ships, including the “post-Panamax” ships, which are too wide to transit the Panama Canal. These ships can carry 6,000 or more TEUs and require deeper harbors to accommodate the draft of the ship. So far, a post-Panamax ship has called on the Charleston port three times, although shipping industry experts expect the bigger ships to transport a greater percentage of global maritime trade.

These trends are increasing the tendency of ships to use hub ports or “load-centers” — major ports which can accommodate the largest ships and cargo loads, and have the transportation infrastructure to move a high volume of containers in and out of the terminal. Second, the shipping lines are using their market power to force ports to compete for their business, pressuring ports to both lower their tariffs and provide the terminal infrastructure needed for the largest ships.

The SPA has based its terminal development strategy in part on its desire to compete for the containership business and become a major load center. The SPA was already the fifth largest container port in the U.S. in 2000. The authority has determined that, in order to keep its status, a new terminal on Daniel Island, with 1,000 foot berths and a greater capacity, is needed to handle the bigger ships which carry large numbers of containers.

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## Competition With Other Ports

SPA officials have expressed the concern that, if the port of Charleston cannot accommodate the needs of the container lines, they will go elsewhere. Charleston’s closest competitor for the South Atlantic region is the port of Savannah. Both ports are actively competing for container load center status.

According to the SPA, the global shipping lines want to see tangible evidence that the port can meet their capacity needs for the future before they will agree to a long term contract. If the SPA loses a contract, it is possible that an entire line will take all of its business — not just a few ships — to another port. Eight containership companies accounted for 72% of the SPA’s FY 99-00 earnings, while two of these companies accounted for 27% of earnings. Therefore, a large part of the port’s revenues depend on the eight global carriers that call at the port.

Since the SPA is dependent on eight containership lines for the majority of its revenues, the loss of a major contract could be detrimental. For example, it may have difficulty meeting its own debt service obligations. SPA is projecting to use all future cash flows for its capital improvement plan. According to the SPA, it also needs increased capacity in order to market the port to new customers, and needs to generate new sources of revenue in order to keep investing in the terminals and improving efficiency. The SPA sees increased volume as the key to increased profitability as well as increased local and regional economic activity.

In fact, two of Charleston's largest container line customers have relocated a limited number of their vessel calls to Savannah. Even so, the SPA is unable to document that this relocation is due to uncertainty about the SPA's future ability to expand its terminals. According to the SPA, there are many factors involved in competition between ports and in global carriers' decisions on which ports to use.

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The SPA currently handles twice the container volume, has terminals that are much closer to the open sea, and has a much higher net income than the Georgia Ports Authority.

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The SPA views Savannah as a competitive threat because Savannah currently has excess terminal capacity that it can market to SPA's customers. Savannah also has built a new container yard, has a somewhat deeper channel, and has better railroad capability to move cargo from the terminal.

It is difficult to verify the extent of the competitive threat posed by Savannah. The SPA currently handles twice the container volume, has terminals that are much closer to the open sea, and has a much higher net income than the Georgia Ports Authority. Dredging may also be a problem for Savannah because the port is so far up river (22 miles). Authorization for further dredging in Savannah's channel has raised concerns that it could possibly affect the fresh water aquifer.

In addition, a private consultant (hired by a stevedoring company which seeks to build a terminal in Jasper County) found that Savannah's excess capacity was limited and that Savannah would be at its maximum practical capacity by 2008. The consultant also concluded that the growth in container volume would be enough to keep all three ports — Charleston, Savannah, and a new Jasper County terminal — busy.

Finally, it has been suggested that, instead of competing, the two states should cooperate and jointly develop a regional load center. In July 2000, a member of the SPA board recommended that the board consider the possibility of South Carolina and Georgia jointly developing a port facility at the Jasper County site on the Savannah River (see p. 32). The SPA board did not act on this recommendation, and in February 2001 the board confirmed their commitment to a Daniel Island terminal.

# Daniel Island Environmental Issues, Costs, and Alternative Sites

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## The Proposed Expansion on Daniel Island

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The environmental and traffic issues have not been resolved since the permit application for the Global Gateway project was withdrawn.

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One of our audit objectives was to review the draft environmental impact statement (DEIS) and other related documents regarding the positive and negative impacts of the Global Gateway project on Daniel Island. The full scope of the authority's intended use of Daniel Island was unveiled to the public in September 1999 in the DEIS, which envisioned a \$1.2 billion terminal that would be built over 20 years and eventually handle up to two million new containers. The Global Gateway terminal would cover approximately 1,300 acres, and have berths located on both the Cooper River and Wando River sides of Daniel Island. At final build-out, the Global Gateway would have more than doubled the size of the SPA's current facilities. The announcement created an immediate controversy, and the plan was opposed by major environmental organizations, citizen groups, and local governments in the Charleston area.

We reviewed the draft environmental impact statement and the extent to which it adequately addressed potential environmental consequences associated with the proposed expansion. The DEIS contained a discussion of potential environmental consequences, including traffic, railways, dredging, air quality, water quality, wetlands, and habitat. According to written comments from the S.C. Department of Natural Resources, "We contend that the DEIS document does not contain sufficient justification for selection of the proposed project (Daniel Island) as the least damaging alternative from either a natural resource or social perspective."

The environmental and traffic issues have not been resolved since the permit application for the Global Gateway project was withdrawn. However, these issues should be addressed before the General Assembly grants the authority legislative approval to build a new terminal on Daniel Island. When potential environmental impacts are not fully investigated or understood, there is an increased risk that any port expansion will not be made in an informed manner. This could result in substantial unexpected costs, and have potential adverse environmental effects which could cause permanent damage to the South Carolina coast.

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## The DEIS Process

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The SPA initiated the DEIS process by submitting an application to the U.S. Army Corps of Engineers for a federal permit to allow it to develop a new marine cargo terminal complex on Daniel Island. As part of the permitting process, the Corps of Engineers developed a draft environmental impact statement to disclose and assess potential environmental consequences associated with the proposed expansion on Daniel Island. The National Environmental Policy Act establishes the process through which the

authority's permit application was processed. The DEIS was prepared under the direction of the Corps of Engineers acting as the lead federal agency. Cooperating federal agencies were the U.S. Environmental Protection Agency and the U.S. Coast Guard. Input was also solicited from other agencies such as the U.S. Fish and Wildlife Service and the South Carolina Department of Health and Environmental Control. The permitting process allows the public and state agencies to comment on the DEIS. Following the close of the comment period, the Corps of Engineers and other cooperating federal agencies would have developed a final environmental impact statement. However, in February 2001, prior to development of the final environmental impact statement, the authority withdrew the permit application for the Global Gateway project, and announced it was planning a scaled-down terminal on Daniel Island. The authority must submit another permit application for a smaller terminal on Daniel Island.

As part of the permitting process, the applicant hires and pays for engineering firms to conduct the required environmental and other studies. The Corps of Engineers approves the engineering firms and gathers and compiles the information submitted, but it does not conduct an independent review of the work. Therefore, the comments of state agencies are critical in assessing which issues require further investigation or analysis in order to fully understand the impacts of any proposed port expansion.

Since the DEIS was not developed into a final environmental impact statement, several of the issues were not fully resolved. Areas of serious concern were raised in comments submitted by the South Carolina Department of Transportation (DOT), the South Carolina Department of Health and Environmental Control (DHEC), the South Carolina Department of Natural Resources (DNR), and the Southern Environmental Law Center. On the following pages, we discuss the pertinent responses to the DEIS by state agencies and the Southern Environmental Law Center, which responded on behalf of the Coastal Conservation League.

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## Concerns Expressed In Response to the DEIS

The impact on traffic congestion on the interstate highways and roads leading into Charleston was a major concern raised through the DEIS process.

- The proposed Global Gateway was expected to generate approximately 4,000 vehicle (one-way) trips per day after it opened in 2004, and this was expected to increase to 27,000 trips per day by the year 2020. This assumes that 25% of the port's cargo would be transported by rail.

- As noted in comments by the Department of Transportation, the DEIS did not identify any funding sources for the required highway infrastructure. DOT noted, “Unless funding for widening I-526 is identified, development of the Daniel Island site as proposed will most likely impose large travel delays on commuters and cargo shippers.”
- The Southern Environmental Law Center commented, “The (D)EIS predicts that the project will correspond with the widening of I-26 to twelve lanes. The (D)EIS must assess the impacts of that widening (e.g., likely impacts on wetlands) as well as the secondary impacts induced by such expansion (e.g., increased traffic).”
- Since Daniel Island has no existing railroad, one would need to be constructed. According to a study conducted by an SPA consultant, the only feasible route would require 13 miles of a new rail track from the proposed terminal complex to the existing East Cooper and Berkeley Railroad. The proposed route would be constructed through tidal and freshwater wetlands. DOT noted the DEIS lacks an analysis of rail routes to major cargo destinations. DOT also listed several issues regarding delays and the ability and willingness of the railroads to make required improvements that should be investigated in order to obtain a full understanding of the obstacles facing the railway construction.

The DEIS identified the need for both federal and non-federal dredging to the Cooper and Wando Rivers in areas adjacent to the proposed Global Gateway terminal facilities.

- The Department of Natural Resources stated, “The available data suggest that at least some of the sediments proposed to be dredged may be unsuitable for ocean disposal. Therefore, the DNR recommends that, prior to any determination regarding the suitability of the various disposal options, additional bulk sediment, toxicity, and bioaccumulation testing be conducted.” The DNR also notes that bottom water quality may be adversely affected as a result of dredging; however, the extent and severity of damage to the water quality are not fully addressed by the DEIS.
- The Department of Health and Environmental Control stated if the material is not suitable for offshore disposal, then large amounts of upland spoil areas need to be identified for initial and maintenance dredging requirements.
- Finally, the Southern Environmental Law Center commented, “The DEIS fails to critically examine the asserted need for ocean disposal of dredged

material, under-reports the volume of dredged material requiring disposal, and fails to account for both the economic costs and the environmental impacts of dredged material disposal.”

According to the DEIS, Charleston, Berkeley, and Dorchester counties met air quality standards established by the Environmental Protection Agency (EPA). State agencies and the Southern Environmental Law Center, however, raised other concerns regarding the impact of a Daniel Island terminal on air and water quality.

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. . . the DEIS does not provide sufficient detail regarding the sources of emissions at the port, and that an increase in emissions could cause or contribute to future air quality non-attainment in Charleston.

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- The Department of Transportation stated the DEIS does not provide sufficient detail regarding the sources of emissions at the port, and that an increase in emissions could cause or contribute to future air quality non-attainment in Charleston. DOT also stated that, “Non-attainment could undermine the region’s ability to attract and/or expand the industries which are expected to contribute to traffic at the port, and may also constrain or prevent the highway capacity expansions needed to accommodate port-generated traffic.”
- The Southern Environmental Law Center commented, “The air quality component of the DEIS is inadequate to assess the impacts of the proposed Global Gateway.”
- In terms of water quality, the DEIS stated that, “No significant temporary or permanent groundwater impacts from the construction and operation of the port facility at Daniel Island should occur.” However, it continued, “Construction and operation of the proposed port facility would create sources for water quality degradation which presently do not exist in the area.”
- The Department of Natural Resources observed, “It should be noted that water quality changes in the vicinity of the Daniel Island facility cannot be accurately predicted based on existing water quality models.”

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## Remaining Issues to be Addressed for Port Expansion

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Currently, the authority is planning a scaled-down terminal on Daniel Island. The terminal would cover approximately 700 to 1,000 acres inclusive of the rail corridor, and have berths solely located on the Cooper River side of Daniel Island. Although the terminal would be built in phases, it would contain approximately 7,000 linear feet of berth space. The first phase would construct 3,000 linear feet of berth space and 200 acres for a container yard, plus other terminal infrastructure. The authority announced it would permanently restrict any future development along the Wando River side of



Daniel Island except for dike maintenance necessary to continue dredge disposal use.

Since the DEIS for the Global Gateway was not developed into a final environmental impact statement, several of the issues were not fully investigated. Issues regarding traffic, railways, wetlands, dredging, air quality, and water quality remain unresolved and must be fully investigated in order to obtain a full understanding of their impact on any port expansion on Daniel Island. Below we discuss the issues which merit further investigation.

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Notwithstanding the growth of the port, DOT had already identified Interstate Highway 526 as a major priority for road widening.

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### **Traffic**

The amount of increased truck traffic generated by a new terminal is still unknown. The DEIS assumed that a minimum of 25% of the containers would be carried by rail. However, only about 3% of containers currently leave SPA terminals by rail. Therefore, initial truck traffic projections were underestimated. Also, the possibility of building a railroad seems remote at this time. According to a DOT official, there is not an adequate model for estimating the effect of trucks on traffic. Also, DOT, in its comments dated April 13, 2000, noted that:

... [T]he proposed cargo terminal is a massive undertaking and will have major impacts on the existing highway infrastructure with or without natural and planned development in the area. We believe that the S.C. State Ports Authority should begin discussing the traffic impacts with the professional staff at SCDOT and the Federal Highway Administration.

Notwithstanding the growth of the port, DOT had already identified Interstate Highway 526 as a major priority for road widening. The Charleston metropolitan area will continue to grow and therefore experience significant traffic congestion. On December 12, 2001, the SPA Board recommended that the DOT and the South Carolina Public Railways Division of the Department of Commerce develop a comprehensive highway and intermodal rail plan to support the expansion of the port of Charleston. The plan was to include:

... construction of the terminal access road to I-526, improvements to existing truck routes and access to mainline rail yards, and development of alternative trucking and rail routes that meet port customer requirements and also recognize community traffic concerns.

The State Infrastructure Bank is currently funding a traffic study to determine how much the port contributes to Charleston area traffic and the destination of trucks leaving the port. The SPA had not previously developed this information.

Finally, any plan to increase the number of containers handled at the SPA's terminals should include highway and rail improvements in its calculations. If there is a bottleneck on the highway or inadequate rail service, then the port is still constrained in its capacity.

### **Wetlands**

The impact of the scaled-down terminal on both freshwater and saltwater wetlands is unknown. The DEIS indicated the Global Gateway project would have impacted 67 acres of saltwater wetlands and 127 acres of freshwater wetlands. According to a DHEC official, from 1990-2000, all permits to destroy wetlands in South Carolina totaled approximately 285 acres of saltwater wetlands and 3,343 acres of freshwater wetlands. Therefore, a terminal on Daniel Island could potentially increase by 24% the amount of saltwater wetlands impacted in the entire state over a 10-year period.

The permitting process for the scaled-down project will require the authority to obtain certifications to impact wetlands from the Corps of Engineers, DHEC's Division of Water Quality, and its Office of Ocean and Coastal Resource Management. In addition, the SPA will also be required to "mitigate" the impacts on the wetlands. Mitigation is a process which attempts to avoid, minimize, or compensate for the impacted wetlands. The mitigation process for the scaled-down terminal and its costs will also need to be addressed by the authority.

### **Dredging, Air Quality, and Water Quality**

There remain unresolved issues regarding dredging, air quality, and water quality. Current information is inadequate to assess the impact of port expansion on water quality in the vicinity of Daniel Island. Regarding air quality, Charleston County is currently not identified as an area of concern, based on monitoring data collected during 1999-2001. However, if the impact of increased traffic was underestimated, the impact on air quality may also be underestimated. Finally, the issue of potential toxicity of dredge material is still unresolved, as well as the impact on recreational and commercial fishing if dredging deeper than 45 feet is eventually permitted.

## Recommendations

5. The State Ports Authority should report to the General Assembly on the results of the truck traffic study and develop a plan to address transportation needs linked to the port.
6. The State Ports Authority should report to the General Assembly on the status of issues relating to wetlands, dredging, air quality and water quality associated with the scaled-down expansion on Daniel Island. This report should be submitted to the General Assembly prior to seeking permission to build the new terminal and railroad.

## Costs of a Daniel Island Terminal

One issue to be considered is the actual cost of a new terminal on Daniel Island. We found that the SPA has yet to fully report the potential costs of a terminal on Daniel Island. Neither has the authority developed a detailed strategy for financing a new terminal. It is questionable whether state bonds or revenues should be used to finance a new port. The use of government funding for ports has been justified by the fact that they are considered agents for economic development. However, we found that the economic benefits of the SPA are difficult to measure and its role in the state's economy possibly exaggerated (see p. 5).

## Total Cost Not Fully Established

The authority currently envisions developing only the Cooper River side of Daniel Island. Phase I of this development calls for 3,000 linear feet of berth space and a 200-acre container yard. SPA staff have developed a schedule of estimated costs for Phase I of Daniel Island, which would take almost eight years to complete and cost \$451 million. The SPA estimate, however, does not include other potential costs and \$56.6 million already expended.

**Table 3.1: Expenses Not Included for Daniel Island Development Cost Estimate**

Land Purchase*	\$15.7 million
Landfill on the Island to Stabilize Soil*	\$14.9 million
Highway Interchange and Railroad Right-of-way*	\$ 15.3 million
Other Funds Already Expended*	\$10.7 million
Railroad from Terminal to Existing Railway (Projected in the DEIS)	\$90 million (estimated)
Wetlands and Other Mitigation Costs	\$35 million (estimated)

\*Indicates funds already spent.  
Source: SPA records.

A railroad is currently not included in the SPA's cost projections but according to SPA staff, one could be built as the need arose. Since a terminal on Daniel Island would be expected to eventually handle almost a million TEUs a year or more, a railroad could be critical in the authority's ability to move containers efficiently from the terminal. Also, the SPA is required to mitigate any loss of wetlands. The current cost projections for Daniel Island terminal includes only \$6 million for mitigation. However, according to the SPA, mitigation costs for both the terminal areas and the proposed railroad right-of-way could be \$35 million.

Also not included are improvements to I-26 and I-526, which are needed with or without a new terminal but also will be impacted by a new terminal. For example, DOT has prioritized interstate widening needs through 2010, with top priority given to widening a segment of I-526 from four lanes to six lanes. If bridges need to be replaced, the cost of this segment alone would be more than \$145 million. No funds have been identified for these improvements.

Finally, the scope of the DEIS included only the direct impacts of a new terminal. As pointed out in a study commissioned by opponents to the Global Gateway, the secondary costs of a new terminal — pressure on other area roads, housing, schools and other infrastructure caused by development — must also be reviewed to understand the complete cost of port expansion onto Daniel Island.

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## Source of Funds for a New Terminal

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The SPA has indicated that financing for a new terminal could come from several sources. We reviewed the following potential sources of capital funding.

### **SPA's Own Revenues**

The SPA's own revenue sources will be inadequate to fund a new terminal. The SPA (which receives no state operating funds, see p. 37) currently reinvests net earnings back into its terminals. Improving the existing terminals will require all of the SPA's cash flows to support the needed revenue bonds. The SPA expects that even though total revenues will increase, its net return will be only 5.8% by 2008, and it will also have exhausted the amount of debt service it can fund. Therefore, the SPA will not be able to issue more revenue bonds to cover the costs of a new terminal.

## Private Investment

None of the investor and financing organizations interviewed in 1998 by the SPA's business consultant, Mercer Management Consulting, believed it would be feasible to attract private capital to fund the significant infrastructure costs of a Daniel Island terminal.

- The Daniel Island project must compete for private funding with other business opportunities available to private investors.
- Return on investment will be the primary criteria by which private funds are allocated.
- The financial return on the Daniel Island infrastructure will be insufficient to compete for private funds.

In June 2001, the Ports Authority issued a request for proposals for the development of a marine cargo facility on Daniel Island. The proposal was sent to containership companies, terminal operators, and other types of private companies involved in maritime shipping. Nine firms responded, but only one gave any indication it would be prepared to make an investment in a new terminal. Typically, port terminal financing is secured by port revenues and revenue bonds, without claim to the assets of the facility users (i.e., the maritime and containership companies) which may have initiated the project.

It may be difficult for the SPA to obtain private investment while at the same time retaining its control over terminal operations. According to its 1998-99 strategic plan:

As the Authority looks to outside funding sources to finance short-term and long-term expansion, it must be concerned about the loss of Authority control and the financial dependency that would come with state funding and/or private sector investment . . . .

## State General Obligation Bonds

The Mercer study also concluded that “. . . the State of South Carolina's financial support is critical to enabling the SPA to successfully implement its container terminal development strategy.” One potential source of capital funding is state general obligation bonds, which are secured by a pledge of the full faith, credit and taxing power of the state. The General Assembly authorizes permanent improvement projects to be financed from general obligation bonds in capital bond improvement acts. The debt service appropriation for general obligation bonds (other than highway and institution bonds) is limited by the Constitution and by statute. Both provide

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The Mercer study also concluded that “. . . the State of South Carolina's financial support is critical to enabling the SPA to successfully implement its container terminal development strategy.”

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that the debt service for general obligation bonds cannot exceed 5% of the previous year's general fund revenues, not including debt service transfers.

South Carolina's unused debt service capacity is not large enough to finance SPA's needs. For example, based on projections from the Senate Finance Committee, by FY 02-03 the debt service will be \$195 million on current issues and \$48 million on new bonds issued, leaving a capacity of only \$14 million for additional debt service. This projection includes new bonds authorized by the General Assembly but not yet issued. It does not include a \$395 million bond bill pending in the Senate for the January 2002 session. Furthermore, the Governor has proposed a new bond issue, also for about \$395 million, to fund capital improvements such as college and school buildings and the purchase of school buses. The governor's proposed bond issue includes \$24.6 million for Charleston Harbor dredging.

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## Recommendation

7. The General Assembly should require the State Ports Authority, if it seeks permission to build a new terminal on Daniel Island, to:
  - Fully disclose the potential costs of a new terminal on Daniel Island, including the associated costs of railway and other infrastructure;
  - Identify funding sources or have a financing plan for a new terminal.

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## SPA's Review of Alternatives to Daniel Island

One of our objectives was to determine whether the SPA actively considered alternatives to locating a new terminal on Daniel Island. We found that prior to 1992, the SPA actively considered other sites in the Charleston area. Further study of other sites, except for the former Navy Base, was not seriously pursued after the first piece of land on Daniel Island was purchased in 1992. Based on our review, we concluded that the SPA did not try to resolve problems associated with the former Navy Base. For example, issues such as cost and negative environmental impacts were used to disqualify the former Navy Base but were not seen as obstacles to using Daniel Island. We also concluded that the SPA did not give full consideration to locating a terminal on the Savannah River in Jasper County. These alternatives were measured by different standards than those used by the authority to choose Daniel Island as the "best" site.

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## Studies Conducted by the SPA Prior to 1992

Using either outside consultants or its own staff, the SPA conducted numerous studies on alternative port expansion sites from 1987 through 1991, before the 1992 land acquisition on Daniel Island. Sites that were considered by the SPA in the Charleston Harbor include Clouter Island, Drum Island, Thomas Island, the Coal Tipple site, the Charleston Naval Complex and Daniel Island (Cooper River and Wando River sides). The criteria by which these sites were assessed generally fell into ten categories — navigational access, bridge constraints, dredging requirements, available backland, land development constraints, road access, rail access, social impacts, environmental impacts, and potential cost. The majority of these sites did not meet the SPA’s criteria for terminal expansion and were ruled out by the SPA. Most of these sites had drawbacks such as poor soil conditions, difficult navigation access, a lack of road and railway access, and limited acreage.

The authority also considered the Savannah River at Jasper County in the early 1990s, although, according to one SPA board member, only superficial consideration was given to the Jasper County site.

The SPA then conducted a “Terminal X” location study in 1991 to determine the site characteristics that a new terminal location would require. After the study, the authority narrowed the selection down to three expansion alternatives: Clouter Island, Daniel Island – Cooper River side, and Daniel Island – Wando River side. The first purchase on Daniel Island was in 1992 with 825 acres on the Cooper River side. The SPA officially chose to use all of Daniel Island in its November 1995 report “Background on the Daniel Island Terminal Site Selection Process.” In 1997, the authority purchased 506 acres on the Wando River side of the island. While Daniel Island had most of the problems found with other sites in the Charleston area, it had more acreage available for terminal development.

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## Alternatives Reviewed in the DEIS

A large portion of the 1999 draft environmental impact statement (DEIS) is also devoted to a discussion of alternatives to the SPA’s proposed terminal on Daniel Island. As described by the Corps of Engineers, the alternatives section of the DEIS is the “heart” of the process, and is so important that the National Environmental Policy Act mandates the discussion of a wide range of alternatives.

The DEIS comparison of alternative sites has been criticized by opponents of the Global Gateway project for the following:

- A lack of independent information about alternative sites – the source of most of the information was the SPA or its contractor.
- No real comparison of the proposed site on Daniel Island with other potential sites in terms of environmental impacts.
- Skewing the criteria for terminal expansion so that only the Daniel Island project would fulfill the SPA's needs.

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## Alternate Site at the Former Navy Base

The former Charleston Navy Base property, known as the Charleston Naval Complex, was reviewed as a possible terminal site several times by the SPA and in the DEIS.

- The Base Reuse Planning Committee initially identified the Naval Complex as a possible port expansion site in 1993.
- An environmental impact statement was subsequently conducted in 1994 by the U.S. Navy, which identified using the southern portion of the former base for a "Maritime Cargo Terminal." However, local officials in North Charleston quickly passed an ordinance prohibiting any container operations at the base, and therefore, ruled out the base for port expansion.
- In its November 1995 report, the SPA asserted that it ". . . must move ahead at full speed with planning for the Daniel Island Terminal. It had become apparent . . . that the Navy property would not be offered for the authority's use. . . ."
- The DEIS also reviewed the Naval Complex as an alternative for terminal expansion, but dismissed it on the basis that the former Navy Base lacked reasonable and/or safe access for the largest new container ships.

Despite the SPA's abandonment of the Charleston Naval Complex site in 1995, it was again reviewed as a possible location for a new container terminal. In 2000, the authority evaluated a 270-acre site at the former Navy Base with assistance from private engineering firms. The engineering report concluded that building a container terminal on the Naval Complex could cost \$421 million, might encounter possible environmental clean-up problems, and could take at least ten years to build. This analysis also determined that the Naval Complex site is closer to existing railroad



connections than the Daniel Island site. The SPA again concluded that the Navy Base alternative was not viable. The issue of whether the Naval Complex could be used as a terminal was not settled at the time of our review, and we concluded that the SPA did not try to resolve problems associated with using the site for terminal expansion.

In addition, in July 2001, the Governor and other officials explored the idea of locating a container terminal at the Naval Weapons Station and Army Depot, further north on the Cooper River. However, the question of whether this would be a feasible alternative is not settled at this time.

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## Jasper County Alternative

The SPA, in its enabling legislation, is given the responsibility to promote commerce in South Carolina and to develop a port on the Savannah River. Several studies were done to evaluate the Jasper County site for its potential as a port development alternative.

- In 1987, the S.C. Coastal Council published a study entitled “Special Area Management Plan for the Lower Savannah River.” The study, completed at the request of the SPA, evaluated the natural and manmade conditions present within the lower Savannah River region and determined the potential for port development in the area.
- In 1991, the Lowcountry Council of Governments published a study entitled “Lower Jasper County Port/Industrial Development: A Regional Approach,” which concluded that it would be in the regional interest to develop the Jasper County site as a comprehensive port/industrial location. It states that, “Considering its great size and ideal location, the South Carolina site represents the most attractive area for regional port and industrial development.”
- Also in 1991, the S.C. Budget and Control Board produced “An Analysis of the Economic Potential of a Port in Jasper County,” which estimated the impact of locating a new port facility there. The study stated that although a port in Jasper County would help that area, and was feasible from an environmental standpoint, it would do so at the expense of costly subsidies by the state and job losses in Charleston. The SPA used similar reasons to justify excluding the Jasper County alternative from its list of viable expansion alternatives.
- In the summer of 2000, the chairman of the SPA board formed an ad hoc committee, comprised of the Governor’s chief of staff, the director of the Coastal Conservation League, and area business and government

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. . . in July 2000, one SPA board member . . . recommended that the board consider the possibility of South Carolina and Georgia jointly developing a port facility at the Jasper County site. . . .

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officials, to consider alternatives to the Daniel Island Global Gateway project. While no formal recommendations were made, the majority of the committee supported a terminal on the Cooper River side of Daniel Island. In addition, the committee recommended that, in the best interest of South Carolina, talks be initiated with the state of Georgia. However, we were unable to verify whether the two governors have initiated any talks.

- Also, in July 2000, one SPA board member wrote a letter to the chairman of the board, claiming that only superficial consideration was given to the Jasper County site. He further recommended that the board consider the possibility of South Carolina and Georgia jointly developing a port facility at the Jasper County site on the Savannah River.
- The Jasper County site came to the attention of Stevedoring Services of America, Inc., (SSA), a private company which was searching for undeveloped sites for port terminal development. In September 2000, Jasper County signed a “Memorandum of Understanding” with SSA to jointly participate in the development of the container terminal facility. The Jasper County site is owned by the state of Georgia and has been used by the state as a dump site for many years. Jasper County and the Georgia Department of Transportation are currently involved in a court battle over the proposed site (see p. 34).

SPA staff also took a tour of the proposed alternative site in Jasper County in 2000. After the visit, SPA officials decided that the site “could become an alternative to fully building out Daniel Island,” but that the Daniel Island plan was “much more developed and should be more viable in the near term.” Officials admitted that the Jasper County site has long-term potential but worried that a port located outside the Charleston Harbor would greatly split SPA port assets and infrastructure, as well as strain its relationship with customers located in the Charleston Harbor. Even after the SPA withdrew its permit application for the Global Gateway project, the authority discounted Jasper County as a viable alternative.

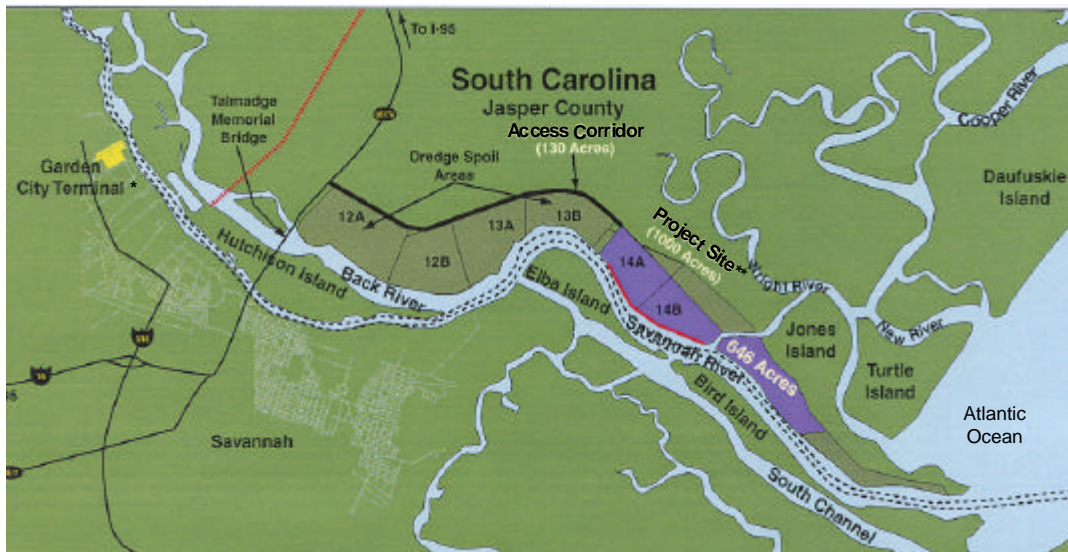
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## Jasper County — A Viable Site

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A plan to develop a container terminal on the Savannah River in Jasper County may be an opportunity for a large-scale new terminal. We found that this location does present a realistic alternative to Daniel Island when matched with the SPA’s criteria. This site merits the consideration of the General Assembly or at least a definitive explanation from the SPA as to why it is not viable alternative.

**PROPOSED JASPER COUNTY PORT FACILITY**



\*Georgia Ports Authority Container Terminal

\*\*Proposed SSA terminal project site which consists of 1,776 total acres.  
Source: Stevedoring Services of America, Inc.

There are still details that would have to be worked out between Jasper County, South Carolina, the state of Georgia, and Stevedoring Services of America, Inc. (SSA). SSA, a private, Seattle-based firm with over 150 operations worldwide, wants to build a \$400 million cargo terminal, South Atlantic International Terminal (SAIT), on 1,776 acres along the Savannah River in Jasper County. The SAIT would be located approximately 7 miles down the Savannah River from open sea, about 12 – 20 miles from the port of Savannah River on the Georgia side and about 80 miles south of the port of Charleston. In addition, the Jasper County site would also have to undergo an environmental impact study before a terminal could be constructed on the site.

In September 2000, Jasper County signed a “Memorandum of Understanding” with SSA to jointly participate in the development of the container terminal facility. SSA has agreed to spend \$250,000 to study the soil properties of the land and compensate Jasper County for the legal fees the county has incurred in the legal battle with Georgia over the land. If Jasper County is successful in acquiring the land, SSA will lease the site for 99 years.

Jasper County and the state of Georgia currently are involved in litigation for the proposed terminal site, which is owned by the Georgia Department of Transportation (GDOT) and has been used as a spoil site for dredge from the Savannah River. In November 2000, Jasper County held a public hearing on the proposed condemnation of the 1,776 acres. At the hearing, the county stated its intent to seek condemnation of GDOT's property in order to construct and operate an industrial, commercial warehousing, and mercantile business park to include railroad links and a marine terminal.

Georgia challenged Jasper County's authority to condemn the property on statutory and constitutional grounds and sought to move its case to federal court. However, it failed in this attempt and the case was remanded to South Carolina Circuit Court. GDOT's complaint asserted 14 causes of action; Jasper County won summary judgment on 11 of the 14 claims after a hearing last August. The judge will rule on the three remaining issues sometime after March 2002.

## Jasper County Compared to Daniel Island

We identified several ways in which a terminal in Jasper County presents a valid alternative to one on Daniel Island. Under the same criteria that the SPA has applied to Daniel Island, the Jasper County site is comparable or superior in most areas.

**Table 3.2: Comparison of Jasper County and Daniel Island Sites**

CRITERIA	SAVANNAH RIVER IN JASPER COUNTY	DANIEL ISLAND IN CHARLESTON HARBOR
Availability	Not currently available; owned by Georgia and under litigation	Available; owned by SPA
Size of Property	1,776 acres	1,300 acres
Navigational Access	7 miles to sea	8 miles to sea
Soil Conditions	Sandy soil conditions	Soil quality poor; would require landfill and stabilization before building could occur
Need for Highway & Rail	Current 2-lane road to existing highway system needs to be widened; 10 miles from abandoned railway spur that connects to CSX railroad	New access road of 2.4 miles needed to connect to existing interstate; 13-mile railway needed to connect to existing system
Environmental Impact	Unknown at this time	Potential impacts on 67 acres of saltwater wetlands and on water quality
Traffic Impact	No severe impact projected; area is rural	Area is urban; traffic already congested and severe impact projected
Funding for Terminal	Private sources	Unknown; possibly a mix of public and private funding
Economic Impact	Creation of jobs, sales revenues, and shipping opportunities for S.C. businesses	Creation of jobs, sales revenues, and shipping opportunities for S.C. businesses

In essence, a private terminal in Jasper County could deliver the same terminal capacity and economic development benefits that a new SPA terminal on Daniel Island could, but without many of the major drawbacks and without the need for state-supported capital funding.

In addition, SSA officials believe that future growth in containerized shipping will create enough port capacity demand so that all three terminals — Savannah, Charleston, and SSA — will have enough business. While the private terminal might initially compete with Charleston or Savannah for the same business, regional growth in container traffic will generate excess demand soon after the first phase of the SSA terminal is completed.

If Jasper County is unsuccessful in its condemnation of the site, it may be up to the state to pursue the matter. The land on the Jasper County side of the Savannah River could have enormous economic development potential because of its quality and location. In the long term, using the property only as a dredge spoil site both wastes a valuable resource and denies Jasper County the economic and other benefits that such development would bring.

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## Recommendations

8. The General Assembly may wish to more fully explore terminal development opportunities on the Savannah River in Jasper County before it votes on a terminal on Daniel Island.
9. The General Assembly may wish to coordinate with Jasper County officials to begin a process which would involve a comprehensive study of the environmental and economic impacts of a Jasper County port terminal.

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**Chapter 3**  
**Daniel Island Environmental Issues, Costs, and Alternative Sites**

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# Accountability Issues

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We reviewed the extent to which the State Ports Authority is accountable to the General Assembly and the public. In general, accountability is established by an agency's enabling legislation; by whom the agency reports to and what kinds of reports it is required to produce; and by the Freedom of Information Act (FOIA). The Freedom of Information Act is a critical accountability tool because the SPA is making decisions that affect public policy and that have local and statewide impacts lasting 20 years or more. Therefore, the activities of the SPA should be conducted with as much openness and public scrutiny as possible. In addition, the State Ports Authority is also a public agency, and therefore it is accountable for its decisions to the public. Finally, the General Assembly needs information about the SPA in order to make decisions in matters concerning the authority, such as funding for dredging or state transportation needs.

However, the SPA only gives the General Assembly an annual financial report. We also found that the SPA has charged FOIA requesters substantial amounts to obtain information. This may discourage members of the public from seeking information about port activities.

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## SPA Enabling Legislation

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The authority receives its powers from §54-3-10 *et al.* of the S.C. Code of Laws, which gives the SPA broad jurisdiction over the harbors and seaports and their tributary streams within the state. Section 54-3-130 states the SPA has the power to:

(2) [a]cquire, construct, equip, maintain, develop and improve such harbors or seaports and their port Facilities; (9) [i]n general, to do and perform any act or function which may tend to or be useful toward the development and improvement of such harbors and seaports of this State and to the increase of water-borne commerce, foreign and domestic, through such harbors and seaports.

The SPA is self-funding through fees and charges assessed on those who use the port and its related services, and does not receive an appropriation from the General Assembly. In effect, the authority is able to operate independently of state government. We identified only three areas where the statutes specifically establish legislative or gubernatorial controls:

- The nine-member, unsalaried governing board of the State Ports Authority is appointed by the Governor, with the advice and consent of the Senate, for terms of seven years.
- The authority is required to report annually to the General Assembly.
- The authority must obtain the approval of the General Assembly prior to constructing a terminal or railroad on Daniel Island.

In addition, even though the SPA does not receive an annual appropriation from the General Assembly, it does receive state funds for the non-federal share of dredging costs. The authority has requested approximately \$74 million from 1998-2003 as the state's share for the harbor deepening dredging project. Also, SPA employees are state employees and receive full state benefits.

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## Reporting to the General Assembly and Oversight by the SPA Board

Section 54-3-860 of the South Carolina Code of Laws requires the SPA to “. . . annually report to the General Assembly the amounts received for fees, harbor or port charges, fines and penalties and the disbursement thereof and also generally its acts and doings under this article.” This broad statutory requirement does not specify the amount or types of information that must be reported to the General Assembly. According to an SPA official, the General Assembly is provided only an annual financial report. The SPA also publishes general information on its website, the Port Encyclopedia, and the “Port News” magazine. Port tariffs are also published on the internet. These sources of information are generally available to the public.

According to an SPA official, its board is provided with annual and monthly financial statements and must approve capital expenditures exceeding \$250,000.

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## Freedom of Information Act Requests

The South Carolina Freedom of Information Act governs which information must be disclosed by the SPA to the public. Information that is exempt from disclosure includes trade secrets, efforts of a public body to attract business to South Carolina, and confidential information provided to a public body for economic development. The SPA must respond to all FOIA requests. When the information requested is exempt from disclosure, the authority must report the basis for denying the information to the requester.



We reviewed all FOIA requests received by the SPA from November 1999 through October 2001. The SPA received and responded to approximately 52 requests during this time. Eleven (21%) of the 52 requests were denied either in whole or in part on the basis that the information requested was exempt from disclosure. For example, the SPA withheld its strategic plan from a requester on the basis that it contained trade secrets.

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We found five instances where the SPA invoiced FOIA requesters thousands of dollars for information that was required to be disclosed.

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We found five instances where the SPA invoiced FOIA requesters thousands of dollars for information that was required to be disclosed. For example, one FOIA requester was sent an invoice of \$2,779 for information regarding the Global Gateway project and the draft environmental impact statement. At various times, the SPA billed FOIA requesters for information in the amounts of \$2,545, \$2,621, \$3,594, and \$7,389. Even if the SPA does not collect these amounts, the size of the bills may discourage FOIA requesters from seeking access to government information.

The General Assembly found it is vital that public business be performed in an open and public manner so that citizens are advised of the performance of public officials. Section 30-4-15 states:

Toward this end, provisions of this chapter must be construed so as to make it possible for citizens, or their representatives, to learn and report fully the activities of their public officials **at a minimum cost** or delay to the persons seeking access to public documents or meetings. [Emphasis added.]

Moreover, an attorney general's opinion dated February 25, 1998, stated, "[T]his Office has consistently cautioned that where particular records relate to and concern how public monies or taxpayer funds are spent, there is 'all the more reason for public disclosure.'"

The FOIA further provides, "The records must be furnished at the lowest possible cost to the person requesting the records." SPA adopted an FOIA request policy which charges \$65 per hour for executive staff time, \$37 per hour for administrative staff (middle management and supervisors) time, \$17 per hour for clerical staff time, and \$0.07 per page for copies. However, this has resulted in bills which have created barriers to persons seeking access to government information.

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## Recommendations

10. The State Ports Authority should ensure government information is provided to FOIA requesters at the lowest possible cost. One method of reducing the amounts charged is to allow clerical staff to primarily perform this function.
11. General Assembly may wish to impose additional reporting requirements on the SPA to ensure that the General Assembly is informed of its future acts and plans. These reporting requirements could include an annual accountability report as well as more detailed reports on its terminal expansion plans.

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## Performance Measures and Comparison With Other Ports

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We compared the SPA with other public port authorities located in the eastern United States on measures such as throughput and market share. We also examined the characteristics of other ports and sources of port funding. Overall, our analysis shows that the port of Charleston is an efficient and competitive port.

We attempted to collect information, through individual surveys as well as from published sources, about East Coast ports located at:

Hampton Roads, VA  
Jacksonville, FL  
Miami, FL  
Port Everglades, FL  
Savannah, GA  
Wilmington, NC  
New York /New Jersey

## Terminal Cargo and Type

In order to understand how different ports operate, it is important to determine the types of cargo that the port handles and the type of port that handles the cargo. There are several different types of cargo that a port may handle, including bulk, breakbulk, ro/ro (roll-on, roll-off), or container (see Glossary).

Ports can also be either landlord, operating or a combination of both. A landlord port means that the port owns the property but leases its land out to private companies for use. Operating ports own their land and run the port with their own employees.

Charleston predominantly handles container cargo but also handles bulk, break bulk and vehicles. Virginia, New York and Charleston are the ports that handle the majority of containerized cargo on the East Coast.

**Table 4.1: Types of Cargo Handled (in Short Tons) and Type of Port — 1999**

	BREAKBULK, LIQUID AND DRY BULK	CONTAINERIZED	AUTOMOBILES AND OTHER RO/RO	TYPE OF PORT
SC STATE PORTS AUTHORITY	20%	80%	0%*	Operating/Landlord
VA PORT AUTHORITY (HAMPTON ROADS)	5%	94%	1%	Landlord
JACKSONVILLE, FL PORT AUTHORITY	33%	55%	12%	Landlord
PORT AUTHORITY OF NY/NJ	27%	70%	3%	Landlord
PORT OF MIAMI, FL	3%	62%	35%	Landlord
PORT EVERGLADES, FL	81%	18%	0%	Operating/Landlord
GA PORTS AUTHORITY (SAVANNAH)	44%	54%	3%	Operating
NC STATE PORTS AUTHORITY (WILMINGTON)	86%	14%	0%	Operating

\* Included in Breakbulk.

Source: "Public Port Finance Survey for FY 1999" by the U.S. Maritime Administration Office of Ports and Domestic Shipping, and Information from SCSPA.

## Profitability

In order to estimate how satisfactory the port's activities have been for a particular year, we looked at profit ratios, or what percent of the revenues are left after operating and other costs are deducted. The net profit ratio is a good guide to comparing different ports, regardless of size. Charleston produced one of the highest net profit ratio (21.4%) of eight ports that were reviewed, meaning that for every \$1 of revenue earned, the authority was able to retain 21.4¢ in "profit."

**Table 4.2: Profitability Statistics of Ports**

	1999			2000		
	OPERATING REVENUE	NET INCOME	NET PROFIT RATIO	OPERATING REVENUE	NET INCOME	NET PROFIT RATIO
	(IN THOUSANDS)			(IN THOUSANDS)		
SC STATE PORTS AUTHORITY	\$84,801	\$16,072	19.0%	\$97,504	\$20,834	21.4%
VA PORT AUTHORITY (HAMPTON ROADS)	128,639	1,495	1.2%	129,312	(11,615)	-9.0%
JACKSONVILLE, FL PORT AUTHORITY	27,934	(1,869)	-6.7%	26,502	(7,954)	-30.0%
PORT AUTHORITY OF NY/NJ	111,581	(18,055)	-16.2%	114,290	(6,062)	-5.3%
PORT OF MIAMI, FL	64,550	1,330	2.1%	72,539	2,713	3.7%
PORT EVERGLADES, FL	72,831	31,222	42.9%	74,332	33,701	45.3%
GA PORTS AUTHORITY (SAVANNAH)	89,180	4,588	5.1%	88,270	1,071	1.2%
NC STATE PORTS AUTHORITY (WILMINGTON)	27,987	216	0.8%	25,870	(1,933)	-7.5%

Source: "Public Port Finance Survey for FY 1999 and FY 2000" by the U.S. Maritime Administration Office of Ports and Domestic Shipping, and Information from SCSPA.

## Number of Containers

TEU, twenty-foot equivalent unit, is a measurement of the cargo-carrying capacity on a containership and refers to a common container size of 20 feet in length. This number is an important indicator of how much volume a port is handling each year. We found that all ports had an increase in container volume from 1995 to 1999. For 1999, Charleston ranked second out of the eight ports in the number of containers handled.

**Table 4.3: Container Traffic in TEUs**

	1995	1996	1997	1998	1999	PERCENT INCREASE
PORT AUTHORITY OF NY/NJ	2,262,792	2,269,500	2,456,886	2,466,013	2,828,878	25%
SC STATE PORTS AUTHORITY	1,023,903	1,078,590	1,217,544	1,277,514	1,482,995	45%
VA PORT AUTHORITY (HAMPTON ROADS)	1,077,846	1,141,357	1,232,725	1,251,891	1,306,537	21%
GA PORTS AUTHORITY (SAVANNAH)	626,151	650,253	734,724	730,611	793,165	27%
PORT OF MIAMI, FL	656,175	656,798	761,183	813,761	777,821	19%
JACKSONVILLE, FL PORT AUTHORITY	529,547	613,448	675,196	753,823	771,882	46%
PORT EVERGLADES, FL	632,789	701,281	719,685	704,390	715,585	13%
NC STATE PORTS AUTHORITY (WILMINGTON)	104,038	103,579	105,786	112,940	133,926	29%

Source: American Association of Port Authorities Web Site.

## Throughput

Another indicator of port efficiency is throughput, or the number of TEUs per acre per year. This measurement takes into account how efficiently a port uses its assets. For this measure, the total numbers of TEUs that have moved through a port for one year are divided by the acres of the container terminal (not total terminal acres). This analysis found that Charleston, when compared to other East Coast ports, is one of the most efficient in asset use.

**Table 4.4: TEUs Per Acre Throughput**

	TOTAL TEUs HANDLED IN 2000	CONTAINER TERMINAL ACREAGE*	TEUs PER ACRE
PORT OF MIAMI, FL	955,700	265	3,606
SC STATE PORTS AUTHORITY	1,574,400	456	3,453
JACKSONVILLE, FL PORT AUTHORITY	698,900	222	3,148
GA PORTS AUTHORITY (SAVANNAH)	950,000	405	2,346
PORT AUTHORITY OF NY/NJ	3,010,000	1,286	2,340
NC STATE PORTS AUTHORITY (WILMINGTON)	NA	NA	507

\* Net container storage acreage, not total terminal acreage, as reported by the various authorities and other sources.

Sources JoC Week, October 1-7, 2001, The Wall Street Journal, July 9, 2001, LAC Survey of Ports and other reports.

## Market Share

Another way to gauge how well a port performs is to compare its share of the trade market. Over the last five years, Charleston has consistently held from 17% to 20% of the East Coast market.

**Table 4.5: United States Each Coast Market Share**

	1995	1996	1997	1998	1999
NEW YORK, NY	29%	32%	31%	25%	25%
PORT OF VIRGINIA	18%	18%	20%	19%	19%
CHARLESTON, SC	18%	17%	20%	18%	19%
SAVANNAH, GA	14%	13%	15%	15%	14%
BALTIMORE, MD	13%	11%	12%	10%	10%
PHILADELPHIA, PA	5%	7%	0%	10%	10%
WILMINGTON, NC	3%	3%	3%	3%	2%

Source: [www.vaport.com/data\\_show\\_Market\\_Share\\_asp](http://www.vaport.com/data_show_Market_Share_asp).

## Port Characteristics

A port's natural characteristics can influence its ability to be competitive in the shipping industry. Proximity to open water and the depth of the channel can affect how efficiently a port operates and how well a port can attract customers. The SPA is located near the open sea and maintains a competitive channel depth.

**Table 4.6: Port Characteristics**

	NAUTICAL MILES TO OPEN SEA	MAINTAINED CHANNEL DEPTH IN FEET *	AUTHORIZED CHANNEL DEPTH IN FEET **
SC STATE PORTS AUTHORITY	5.50	40	45
VA PORT AUTHORITY (HAMPTON ROADS)	18.00	50	55
JACKSONVILLE, FL PORT AUTHORITY	8.00	38	40
PORT AUTHORITY OF NY/NJ	22.00	40	45
PORT OF MIAMI, FL	1.50	42	42
PORT EVERGLADES, FL	1.20	42	42
GA PORTS AUTHORITY*** (SAVANNAH)	22.20	42	48
NC STATE PORTS AUTHORITY (WILMINGTON)	26.00	38	38

- \* Maintained Depth means that the United States Army Corps of Engineers (USACE) has been authorized by the U.S. Congress to maintain this depth in the harbor channel.
- \*\* Authorized depth means the future channel depth that has been approved; however, USACE must provide economic justification, verification of technical feasibility, environmental compliance and await congressional appropriations prior to project implementation.
- \*\*\* Currently part of a feasibility study with final depth to be determined.

Source: Port Web Sites and LAC Survey of Various Ports; also, JoC Week August 27-September 2, 2001.

## Port Funding

As more public port authorities seek to invest in their facilities, funding becomes a critical issue. We attempted to determine the source of revenues used by most ports. The SPA is primarily self-funded through its own revenues and revenue bonds. It has received state appropriations for the non-federal share of dredging. This table shows the funds that port authorities receive from the state and other sources. It does not show ports' earned revenues, federal funds received for dredging, or federal and other funds for rail and highway facilities.

**Table 4.7: Port Funding**

	SOURCE OF FUNDS
SC STATE PORTS AUTHORITY	State Appropriations for Dredging
VA PORT AUTHORITY (HAMPTON ROADS)	Virginia Transportation Trust Fund
JACKSONVILLE, FL PORT AUTHORITY	Legislative Appropriation from Transportation Trust Fund (Gas Tax Revenue)
PORT AUTHORITY OF NY/NJ	Not Available
PORT OF MIAMI, FL	Matching grants and funds generally available to Florida seaports from the Florida DOT
PORT EVERGLADES, FL	Not Available
GA PORTS AUTHORITY (SAVANNAH)	State grants and repayable, contributed capital
NC STATE PORTS AUTHORITY (WILMINGTON)	Capital funding from the state

Source: LAC Survey of Various Ports.



# Glossary

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Berth	A place in which a vessel is moored or secured.
Breakbulk Cargo	Cargo which is shipped as a unit (e.g., palletized cargo, boxed cargo, large machinery, trucks, and pre-slung cargo).
Bulk Cargo	Loose cargo that is loaded directly into a ship's hold.
Common User	Customers who use the yard and gate services provided by the SPA.
Consignee	The receiver of freight shipped by the shipper (consignor).
Container	An open or enclosed structural unit designed for intermodal transport of commodities; many have standard corner fittings to secure them to highway chassis, rail cars, or ocean vessels, facilitating interchange among carriers in international trade.
Containership	A cargo vessel designed and constructed to transport, within specifically designed cells, portable freight containers and tanks that can be loaded and unloaded with their contents intact.
Draft	The depth of a vessel's keel below the waterline when carrying a full cargo.
Dredge	To clean, deepen, or widen waterways with a vessel equipped with a scooping or suction device.
Inland Waterway	Navigable waters located within the boundaries of the contiguous 48 states and Alaska.
Intermodal	This refers to the capacity to go from ship to train to truck or the like.
Licensed Operator	Customers who lease space at the terminals to store their containers and manage their own container yard and terminal gate.
Maximum Practical	A terminal's sustainable throughput at the high-end Capacity of a realistic operating scenario.
Port Industry	Maritime companies engaged in port activities essential to handling and transporting cargo through authority facilities; for example, stevedores, longshoremen, brokers, steamship agents, etc.
Port Users	Firms that import and export cargo such as raw materials, component parts and finished goods through the port of Charleston.
Post-Panamax Ship	A vessel too wide to transit the Panama Canal.

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**Appendix A  
Glossary**

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RoRo (Roll on/ Roll-Off) Vessel	A ship designed to accommodate cargo, such as vehicles or tractors, that is rolled on and rolled off. Some Ro/Ro vessels can accommodate containers and/or breakbulk cargo.
Stevedore	One who works at or is responsible for loading and unloading ships in port.
Tariff	A general term for any listing of rates or charges. The port tariff also lists certain maritime rules and regulations.
Terminal	An area or enclosed structure that is used to load or unload passengers or cargo or to transfer them between different vehicles on the same transportation modal network.
(TEU) Twenty Foot Equivalent Unit	A measurement of cargo-carrying capacity on a containership, referring to a common container size of 20 feet in length.
Throughput	The amount of cargo that can be moved through a port facility in a specific amount of time using conventional equipment and best practical management practices.
Transshipment	The transfer of a shipment from one carrier to another in international trade, most frequently from one ship to another.
Wharfage	A charge assessed by a pier or dock owner against the cargo or a steamship company for use of the pier or dock.

# Agency Comments

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**Appendix B**  
**Agency Comments**

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**The South Carolina State Ports Authority's Response  
To the Legislative Audit Council's Report Entitled  
Issues Involved in the State Ports Authority's Expansion Plans**

At the direction of members of the general assembly, the legislative audit council (lac) spent nine months completing a performance audit of the south carolina state ports authority's (spa) terminal expansion plans.

The lac's report is replete with inaccuracies and inconsistencies, ignores information and documentation that was supplied to them, and contains unsubstantiated conclusions that are misleading. Nevertheless, the lac has made 11 recommendations to the general assembly. The following is a response to those recommendations and to the report itself. It includes a summary response, an executive summary and background comments.

**SUMMARY RESPONSE**

**Nine of the LAC's 11 recommendations are already being addressed by the SPA or can only be**

- A.** **addressed by completing the permitting process and feasibility studies associated with the compromise terminal expansion plan.** Therefore, the General Assembly should authorize the SPA to move forward with the port expansion project. Developing a project scope and submitting federal and state permit applications initiates the permitting process that will identify and address impacts of the project.
- B.** **The LAC states that it may be difficult for the General Assembly to make an informed decision until the SPA reports more fully on critical issues. All of these critical issues will be thoroughly analyzed and addressed after the General Assembly authorizes the SPA to move forward with the project.**
- C.** **The LAC minimizes the port's economic impact and state's that it is difficult to quantify, despite the fact that the economic impact study was developed using a nationally recognized and verified model.** The PortKit economic impact model was developed by the USDOT's Maritime Administration and is widely used by ports and governments across the country. Two USC economists confirmed a previous study using the same model and wrote, "the results, rather than being inflated, may tend to understate the total impact of port activity in South Carolina." Waterborne trade moving through the State's port system makes a major, quantifiable contribution to the businesses and citizens of South Carolina.
- D.** **The LAC's conclusion that the proposed Jasper County location for a new container terminal is a realistic alternative to Daniel Island is not based on any substantive, fact-based analysis.** Further, the LAC reaches this conclusion without conducting any of the studies and analyses that the SPA has conducted on Daniel Island and other sites. As early as 1991, the State Budget & Control Board concluded that a port in Jasper County would help Jasper County "at the expense of costly subsidies by the State of South Carolina and job losses in Charleston and other areas of the state."
- E.** **The LAC's report does not conform to generally accepted government audit standards,** which are very explicit in terms of the process to be used in conducting the audit and the qualifications and expertise to be possessed by the auditors. The SPA provided detailed documentation to the LAC regarding this point as part of its comments on the draft report.

**South Carolina's port system is at a crossroads.** It is time for South Carolina to send a clear message to the business community, both in the U.S. and around the world, that it supports the strong, competitive Port of Charleston and intends to keep it that way. Delays have occurred in port expansion, our competitive position has weakened and now is the time to act.

## EXECUTIVE SUMMARY

**A. The LAC's report contains 11 recommendations. Four of these recommendations will be addressed as part of the permitting process. Five are either currently being addressed or will be addressed by the SPA as part of its feasibility studies related to terminal expansion. The remaining two are not for the SPA to answer.**

**Recommendations that will be addressed by the permitting process or other government agencies**

- ✓ Recommendation 4. If the State Ports Authority requests permission to build a new terminal on Daniel Island, it should provide information to the General Assembly on the potential throughput per acre anticipated and the ultimate size of a terminal that would be needed over the next 20 years.
- ✓ Recommendation 5. The State Ports Authority should report to the General Assembly on the results of the truck traffic study and develop a plan to address transportation links to the port.
- ✓ Recommendation 6. The State Ports Authority should report to the General Assembly on the status of issues relating to wetlands, dredging, air quality and water quality associated with the scaled down expansion on Daniel Island. This report should be submitted to the General Assembly prior to seeking permission to build the new terminal and railroad.
- ✓ Recommendation 8. The General Assembly may wish to more fully explore terminal development opportunities on the Savannah River in Jasper County before it votes on a terminal on Daniel Island.

**Recommendations currently being addressed or to be addressed by the SPA as part of its feasibility**

**studies related to terminal expansion**

- ✓ Recommendation 1. The State Ports Authority should continue to seek ways to become more efficient with the available container storage space. **The SPA has invested \$192 million since 1996 and its current six-year capital plan includes \$322 million to improve efficiency and maximize capacity at its existing container terminals. The LAC was provided this information during the audit process.**
- ✓ Recommendation 2. The State Ports Authority should seek permits to develop the remaining acreage at Wando Welch Terminal. **The SPA has prepared the development plans and is evaluating the legal issues associated with the new Charleston County permitting process. The SPA informed the LAC that it was conducting this evaluation.**
- ✓ Recommendation 3. The State Ports Authority should track the length of time empty containers dwell in excess of days limited by contracts, enforce contract provisions regarding container storage, and charge fees for excess storage. **The SPA does track dwell days on empty containers and is implementing a process to bill customers for excess dwell days. The SPA explained this system to the auditors during the audit process.**
- ✓ Recommendation 7. The General Assembly should require the State Ports Authority, if it seeks permission to build a new terminal on Daniel Island to: fully disclose the potential costs of a terminal

on Daniel Island, including the associated costs of railway and other infrastructure; identify funding sources or have a financing plan for a new terminal. **The SPA will address these items as part of its feasibility studies related to port expansion.**

✓ Recommendation 10. The State Ports Authority should ensure government information is provided

to FOIA requestors at the lowest possible cost. One method of reducing the amounts charged is to allow clerical staff to primarily perform this function. **The SPA manages its business on a self-sufficient basis, which means it must cover all of its costs. Despite this goal, the SPA has charged FOIA requestors a very small portion of the actual total costs incurred in responding to voluminous and complex FOIA requests. The SPA has endeavored to work cooperatively with FOIA requestors to optimize their requests. Requestors were informed in advance of the costs associated with their requests and agreed to pay for the requested information, however, a majority of FOIA requests are fulfilled at little or no cost to the FOIA requestors.**

**The SPA has neither the authority nor the responsibility to respond to the remaining two recommendations.**

- Recommendation 9. The General Assembly may wish to coordinate with Jasper County officials to begin a process which would involve a comprehensive study of the environmental and economic impacts of a Jasper County port terminal.
- Recommendation 11. The General Assembly may wish to impose additional reporting requirements on the SPA to ensure that the General Assembly is informed of its future acts and plans. These reporting requirements could include an annual accountability report as well as more detailed reports on its terminal expansion plans.

## **B. The LAC's questions about the impacts of the compromise expansion plan on Daniel Island will be answered through the permitting process if the SPA is allowed to proceed with the project.**

It is very unlikely that any federal agency will agree to spend the time and taxpayer dollars required to undertake the permitting process without assurances from the SPA and the State that the SPA is authorized to proceed with the project.

Granting the SPA permission to proceed with the compromise project on the Cooper River side of Daniel Island will enable the SPA to proceed with the federal and state permitting processes, including environmental studies. The permitting process, which will identify and evaluate environmental impacts and include mitigation plans for identified environmental impacts, includes the following steps:

- The U.S. Army Corps of Engineers and all cooperating federal agencies initiate the federal permitting process
- State agencies are actively involved in both the federal and state permitting processes
- Qualified, experienced experts are required to conduct the studies identified by the U.S. Army Corps and cooperating federal agencies
- A draft report on impacts is produced and released

- Provide for public review and comment
- Public comment is reflected in a final permit document, including mitigation plans
- The issuance of a state permit is required before a federal permit can be received

**C. The LAC states that the economic impact of the port on the state is difficult to quantify, despite the fact that the SPA uses a recognized and verified model.**

The model and methodology used to study the Ports Authority’s economic impact was previously verified on at least two separate occasions by two independent economists from the University of South Carolina’s College of Business Administration.<sup>1</sup>

While the LAC minimizes the port’s economic impact and suggests that the SPA overstates the impact, the USC economists said exactly the opposite about previous studies that had similar results. “The State Ports Authority only examined part of state business activities directly tied to the port’s use. This may also underestimate the total effects in the state’s economy because some of these businesses would not exist at all if not for the port.”

The evaluation of the prior economic impact study continued, “Our impression is that where the study may have erred... the SPA erred on the conservative side. Again, the results, rather than being inflated, may tend to understate the total impact of port activity in South Carolina.”

The LAC report also questions the port’s role in attracting business investment and economic development opportunity. The economists’ evaluation suggests a much different picture, “if the port contracted or became overburdened, the state could lose entire businesses, not just that part of their activities that directly relates to the port.”

Finally, the USC evaluation said of the Ports Authority’s previous economic impact study research, “The analysts use sound procedures...It should serve as a reliable benchmark of port activities and their total economic impacts.”

The economic benefits generated by the public port facilities managed by the SPA, as reported in the 1997 Mercer study, are substantial:

- 83,000 direct and indirect jobs. Many of these jobs, because they are related to the port and manufacturing industries, pay above average wages and provide above average fringe benefits
- \$10.7 billion in sales revenues. Examples of companies whose employment is in part dependent on the State’s seaports include BP Amoco (Berkeley county), Frigidaire Home Products (Orangeburg), BMW (Greer), Westvaco (North Charleston) Michelin (Greenville), and Springs Industries (Lancaster)
- \$314 million in corporate, sales, excise, property and personal income taxes to local and state governments
- \$2.6 billion in wages to South Carolina citizens

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<sup>1</sup> Evaluation of the South Carolina Ports Authority 1990 Economic Impact Analysis, September 1991



**D. The LAC’s conclusion that the proposed Jasper County location for a new container terminal is a practical alternative to Daniel Island is not based on any substantive, fact-based analysis.**

The LAC also draws this conclusion without performing any of the studies and analyses that the SPA has conducted on Daniel Island and other sites. The SPA has evaluated marine terminal expansion options for 14 years, using both internally and externally produced studies.

The LAC’s auditors possess no formal education, training or experience in the container shipping, port or marine terminal design and construction industries. Yet, within a timeframe of less than nine months, the LAC concluded, reportedly using the same criteria but without the benefit of either the requisite technical expertise or the time invested by the SPA, that the Jasper County site is a practical alternative to Daniel Island.

The LAC reaches this conclusion despite the following facts:

- The Jasper County property is owned by the State of Georgia, which is litigating to retain ownership of the site. Georgia and the U.S. Army Corps of Engineers use the site for depositing dredge spoils associated with maintaining the federally mandated channel depths in the Savannah River. The LAC report does not address the practicality of eliminating Georgia’s and the U.S. Army Corps of Engineers’ dredge spoil disposal site.
- The LAC fails to note that the site also contains federal government easements that would need to be addressed prior to developing the site as a marine terminal.
- Information reviewed by the SPA does not support the LAC’s conclusion that the soil conditions are materially better than Daniel Island.
- While the LAC criticizes the SPA for not adequately addressing road and rail access to the proposed Daniel Island terminal, the LAC has not conducted any technical, fact-based studies that support its conclusion that Jasper County is comparable or superior to the Daniel Island site in terms of highway and rail access.
- Neither a Draft Environmental Impact Statement nor a Final EIS has been conducted on the Jasper County site, yet the LAC concludes that the Jasper County site is comparable or superior.
- The LAC concludes no severe traffic impact is projected from the Jasper site. However, there have been no fact-based traffic studies to support this conclusion. There has been no consideration of what percentage of the proposed terminal’s truck traffic would move to warehouses, distribution centers, shippers’ locations or rail facilities in Savannah or Georgia.
- The LAC has conducted no fact-based analyses of the financial, operating and cost effects of a Jasper County terminal on the SPA, the GPA or most importantly the State of South Carolina’s public port investments.
- The LAC criticizes the SPA’s economic impact as being difficult to quantify, despite the fact that the analysis is based on the U.S. Maritime Administration’s model. However, the LAC concludes without having conducted any analysis and without understanding the methodology, that a Jasper County terminal would generate comparable economic impacts while handling only one fourth of the volume of the Port of Charleston.
- The State Budget & Control Board reviewed the Jasper County site in 1991 and concluded that most of the

economic benefits associated with a Jasper County terminal would accrue to the State of Georgia and that Jasper County would benefit “at the expense of costly subsidies by the state, and job losses in Charleston and other areas of the state.”

**E. The LAC’s report does not conform to generally accepted government audit standards. The SPA provided detailed documentation to the LAC regarding this point as part of its comments on the draft report.**

The SPA has worked cooperatively with the LAC throughout their review to insure the auditors had every opportunity to prepare an audit that conforms to generally accepted government auditing standards and completely and accurately addresses the SPA’s expansion plans. Despite the SPA’s efforts, the LAC’s report is replete with errors, inconsistencies and unsubstantiated conclusions.

The SPA believes the LAC’s report does not meet the generally accepted government auditing standards for the following reasons:

- **First**, and most importantly, the report does not contain an objective, systematic examination of evidence, either organizationally or in terms of accurately describing the SPA’s 14-year terminal expansion evaluation process.
- **Second**, the auditors do not possess the requisite industry knowledge, training and experience to conduct an audit of the SPA within the context of the specific or unique environment in which the SPA operates. This unique environment includes the international container shipping industry, the U.S. Atlantic Coast port industry, the U.S. Southeast inland freight transportation industry, U.S. environmental regulations and processes, terminal planning and construction and standard economic impact methodologies used by ports, governments and universities throughout the U.S. port industry.
- **Third**, the report fails to sufficiently, competently and objectively describe the SPA’s communications and interactions with the Governor’s Office of South Carolina, members of the General Assembly, state agencies and the public regarding its terminal expansion evaluation program.

## **SPA'S BACKGROUND COMMENTS**

### **1. The General Assembly has given the SPA the authority to develop and expand marine terminals.**

Chapter 3 of the Code of Laws of South Carolina 1976 addresses the creation and assignment of powers and authorities to the State Ports Authority. Section 54-3-130 sets forth the purposes of the authority and lists nine specific purposes. The first three require the SPA to accomplish developing and improving harbors or seaports in Charleston, Georgetown and Port Royal; to acquire, construct, equip, maintain, and develop and improve such harbors or seaports and their port facilities; and foster and stimulate the shipment of freight and commerce through such ports, whether originating within or without the State.<sup>2</sup>

The SPA's 14-year terminal expansion evaluation process, the process by which the SPA selected Daniel Island as the optimum site for future terminal development, has been undertaken in fulfillment of the SPA's purposes as mandated by the General Assembly. The SPA's 14-year terminal expansion evaluation process is an ongoing, sequential, comprehensive series of studies and analyses whose purpose is to determine the optimum location for expansion of its marine container terminal facilities to fulfill its purpose as mandated by the General Assembly.

No other entity in the State of South Carolina has invested the time, money, resources or expertise to evaluate, in good faith and with the highest degree of professionalism, the optimum location for expanding the SPA's marine terminal facilities. The major elements of this 14-year program include:

- 1987, August: Future Terminal Site Alternatives, SPA.
- 1988, October: Strategic Business Plan Update, Cresap for the SPA.
- 1990, September: Conceptual Cost Estimate for a Container Terminal in Jasper County, SPA.
- 1991, March: An Analysis of the Economic Potential of Port in Jasper County, Division of Research and Statistical Services, Office of Research, State of South Carolina.
- 1991, Daniel Island Planning, Vickerman Zachary Miller for SPA and the Guggenheim Foundation.
- 1991, June: Shiphandling Simulation Based Evaluation of Alternate Terminal Sites in the Port of Charleston, Computer Aided Operations Research Facility, National Maritime Research Center for the SPA.
- 1991, October: Terminal X Conceptual Planning Study, Frederic R. Harris, Inc. for the SPA.
- 1992, April: Terminal X Conceptual Plan, Daniel Island Development Project, Vickerman Zachary Miller for Olympia York Company.
- 1992, November: Study of Rail Access Alternatives for the Daniel Island Terminal, Wilbur Smith Associates for SPA.

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<sup>2</sup> Section 54-3-130 of Title 53 of the Code of Laws of South Carolina 1976, Titles 51-55; page 187.

- 1994, June: Charleston Naval Complex Reuse Plan, Trident's Best Committee (Charleston, Berkeley, and Dorchester Counties).
- 1994, October: Draft Environmental Impact Statement for Disposal and Reuse of the Charleston Naval Base, US Navy.
- 1995: Background on the Daniel Island Terminal Site Selection Process, SPA.
- 1996: Daniel Island Maritime Plan, Cooper Robinson and VZM/TranSystems for the SPA.
- 1997-1998: Business Plan & Project Feasibility Study, Mercer Management Consulting for the SPA.
- 1999, September: Draft Environmental Impact Statement for the Proposed Daniel Island Marine Cargo Terminal, US Army Corps of Engineers.
- 1999, September: Charleston Business and Community Leadership Forum Presentation, Norbridge, Inc. for the SPA.
- 1999, October: SCSPA's Marine Terminal Development Strategy, Forecast and Capacity Update, Norbridge, Inc. for the SPA.
- 2000, May-June: SCSPA's Marine Terminal Development Strategy, Financing Initiative, SPA, Norbridge, Inc., Goldman Sachs, Lehman Brothers, Merrill Lynch, McNair & Moffat Nichol.
- 2000, October: Port Terminal Development - Charleston Naval Complex, Davis & Floyd, S&ME, General Engineering for the SPA.
- 2000, November: Container Cargo Forecast Study, Norbridge, Inc. for the SPA.
- 2000, November: Site Characteristics of Daniel Island, Jasper County and the Navy Base, SPA.
- 2001, February: Review of Site Selection Process, State Budget & Control Board.

**2. The SPA is one of few financially self-sufficient public port authorities in the United States. It is also one of the most efficient on the Atlantic Coast.**

According to the American Association of Port Authorities (AAPA), the industry organization representing public port authorities in the U.S., Canada, Mexico and Latin America, there are 127 public port authorities in the U.S. These authorities have a variety of governance structures including state, county, and municipal and in two instances bi-state. With few exceptions, the core purposes of these public authorities are the planning, developing, management and promotion of harbors, seaports and marine terminals.

According to the AAPA's financial surveys, most of the major container ports within the United States receive significant external funding, including state grants or assistance, tax revenues or other sources, to supplement cash generated from operations. The SPA has relied on its own funds, not taxpayer funds, to fulfill its purpose of planning, developing and managing the State's harbors and seaports. The LAC report confirms the SPA's superior financial performance relative to other major U.S. container ports (see page 42 of LAC report).

The SPA has also continuously invested in improving productivity and efficiency of its marine terminal operations. Its container line customers consistently rate Charleston as one of their most productive, efficient, cost-effective ports.

Crane productivity analyses consistently show that Charleston is significantly superior to its Atlantic Coast competitors. Analysis of industry statistics also shows Charleston to have one of the East Coasts' highest container terminal utilization levels, as measured by twenty-foot equivalent container units, or TEUs, per gross acre of container terminal. The LAC report also confirms this (see page 44 of LAC report).

Since the completion of the last major expansion phase of the Wando Welch Terminal in 1995, the SPA's capital investment program has focused on maximizing efficiency and capacity of its existing marine terminals. During the past six years, the SPA has invested \$192 million in equipment, operational improvements and capacity enhancements to its existing facilities. These investments have enabled the SPA to continue to meet the growing needs of its customers without building new facilities.

These investments, in combination with the SPA's current \$322 million six-year capital investment program, have "bought the time" the SPA has needed to prepare its rigorous, comprehensive and thorough analysis of terminal expansion alternatives and to prepare a long-term terminal expansion program.

That program, which has been under continuous analysis since 1988, has provided the SPA with the flexibility to withdraw its original Global Gateway project in a spirit of compromise to the Charleston community and propose its current proposal to develop the Cooper River side of Daniel Island.

The SPA's ability to develop, maintain and manage efficient marine terminals and thus provide shipping lines with efficient access to Southeastern markets has resulted in 16 of the world's top 20 shipping lines (as measured by fleet capacity) calling at the Port of Charleston. These global container shipping lines provide South Carolina businesses with high levels of service frequency at competitive prices to most world markets.

The levels of geographic coverage and service frequency offered by these global shipping lines are far greater than could be sustained by the South Carolina market alone. However, the fact that container lines can serve many other markets via Charleston enables them to offer superior levels of service coverage and frequency. This situation would be tantamount to the Charleston or Columbia airports functioning like a Charlotte, Pittsburgh, St. Louis or Denver hub.

While the populations of the aforementioned cities cannot alone sustain nonstop service to most US cities, the fact that major airlines have selected these cities as hubs has resulted in the citizenry of these cities enjoying vastly superior levels of air service. South Carolina businesses realize similar benefits via the Port of Charleston.

### **3. The SPA makes a major, quantifiable contribution to the South Carolina economy and businesses.**

Economic impact analysis is an econometric-based methodology for measuring the contribution an activity makes to a particular area. Economic impact analyses are used by government authorities, universities and the private sector to measure the economic contribution specific activities or projects have on an area.

Economic impact analyses have been used to quantify the economic benefits airports or seaports have on local, regional or state economies; to quantify the economic benefits generated by certain types of legislation; or the

economic benefits associated with major capital investments such as the construction of new manufacturing facilities (auto plant, steel plant, etc.) on a local, regional or state economy.

The Maritime Administration, the branch of the U.S. Department of Transportation entrusted with overseeing the nation's maritime and port industries, has developed a computer-based model specifically for quantifying the economic benefits generated from seaport development and activities.

This model, known as the PortKit, has been widely used for more than 10 years throughout the U.S. port industry. The SPA has used this industry standard model and methodology to measure the economic contributions of the seaports it manages to the State economy.

It is important to note that the SPA has never claimed that the Authority itself generates the benefits contained in its economic impact studies, as the LAC report implies. The SPA has simply measured, using a widely accepted model, the economic benefits associated with cargo moving through its terminals.

#### **4. South Carolina's port system is at a crossroads.**

The State of South Carolina needs to decide if the Port of Charleston, the businesses that use it and the benefits they generate for South Carolina citizens are important.

If they are, then the State should authorize the SPA to fulfill the purpose the General Assembly gave it and allow the SPA to proceed with the compromise terminal expansion project on the Cooper River side of Daniel Island.

The SPA has demonstrated the significant contribution that port-related activities generate for the State of South Carolina and South Carolina businesses.

Reflecting this impact, the South Carolina business community has strongly endorsed the SPA's terminal expansion program and believes that the Port of Charleston needs to expand in order to accommodate the future growth of their importing and exporting.

The SPA is committed to sustaining its superior performance and fulfilling its mission as mandated by the General Assembly. But growing demand for shipping services requires expanded facilities.

It is time for South Carolina to send a clear message to the business community, both in the U.S. and around the world, that it supports the strong, competitive port of Charleston and intends to keep it that way.

Delays have occurred in port expansion, our competitive position has weakened and now is the time to act.

Bernard S. Groseclose, Jr.  
President & Chief Executive Officer  
South Carolina State Ports Authority

Submitted: March 15, 2002