

**Attachment to City of Shoreacres' Comments to TCEQ
On Bayport Container Terminal 401 Certification
April 3, 2003**

The Port of Houston Authority released a document titled "A Comparative Analysis Between the Spilman's Island and Bayport Sites" dated February 2003 that concludes that the Spilman's Island site would cost an additional \$336,808,000 to develop as a container port than the Bayport site. This economic analysis is incorrect and incomplete, leading to an erroneous conclusion.

The following are some of the major problems with this study.

1. Cruise Terminal Co-Located with Container Terminal. The Port continues to insist that the Cruise Terminal be co-located with the Container Terminal, even though separating the two is desirable from security and land use perspectives. There are alternate acceptable locations—including Bayport—where the Cruise Terminal could be located. Since space is more constrained and site preparation costs are higher on Spilman's Island than at Bayport, assuming the Cruise Terminal must also be developed at Spilman's Island biases the economic analysis. Specifically, about **\$90 million** of the additional costs reported by the Port for Spilman's Island are associated with development of the Cruise Terminal.

2. Inefficient Design. The size and layout of the Port's proposed container terminal drive the costs up for the Spilman's Island site by at least **\$172.8 million**.

- The Port of Houston Authority's design for the container terminal requires about 900 acres. Modern container terminals with similar capacity require only about 400 acres, as demonstrated by the design of the Shoal Point Container Terminal (proposed Texas City facility). Since Spilman's Island requires more site preparation than Bayport, increasing the size of the footprint disproportionately increases the costs of the Spilman's Island alternative. If the facility generously covers only 500 acres (100 acres of which do not require stabilization, as assumed by the Port in its study), the cost to stabilize Spilman's Island decreases by \$80.2 million. In addition, the cost per acre of stabilization and required wharf piling depth are a function of the soil conditions. The unit costs used by the Port in their study (and assumed here as well) may be reasonable, but they are not based on recent or complete core samples or geotechnical study. They are based on data that range in age from 1978 to 1996.
- The Port's proposed layout for a container terminal on Spilman's Island would require the dredging of 22 million cubic yards of material, which would then require disposal. The layout of a similar capacity container terminal on Spilman's Island in the Shoal Point (Texas City) Environmental Impact Statement would require the dredging of only 9.6 million cubic yards of material. The cost to dispose of the additional material adds over \$64 million to the Spilman's Island alternative.
- The Port's study lists \$50 million for pipeline relocations from Spilman's Island. If the site size were reduced by more than one-half, these costs would be reduced as well.

Without knowing exactly where these pipelines are located, the comparative costs are assumed to be cut in half, saving another \$25 million.

- The Shoal Point design would also eliminate the need for armoring the banks of Spilman's Island that face the Houston Ship Channel, because the wharves would face the channel instead. This design change eliminates \$3.6 million of bank armoring costs.

3. Inflated Dredge Disposal Costs. The Port's study includes at least **\$22.6** million in unnecessary expenditures for maintenance dredge disposal.

- If the proposed Container Terminal only uses half of Spilman's Island, the other half could continue to be used for dredge spoil placement at zero additional cost. Therefore, half the cost of acquiring an additional dredge disposal site, or \$3.4 million, would be saved.
- The Port assumes that all additional dredge spoil will be placed at Cedar Point, requiring additional pumping costs. If half of that dredge disposal remains at Spilman's Island, the pumping costs would be reduced by \$19.2 million. The Port does not examine the additional costs or benefits associated with beneficial use disposal (such as wetlands or islands) nor do they examine other potential sites for dredge disposal. These alternatives could reduce costs further.

The items listed above total to \$285.4 of the reported additional \$336.8 million, leaving a net cost for Spilman's Island of \$51.4 million. With better geotechnical data and a closer examination of other differential costs reported such as wharf piling depths and power line relocation, this differential may shrink even further.

The study also fails to include other significant differential economic impacts.

1. Located in the middle of a residential and recreational area, the Bayport site would significantly reduce property values in surrounding communities. The Shoal Point FEIS finds property value reductions around the Bayport site of up to 30% based on noise impacts alone. The Spilman's Island site, by contrast, would abut existing industrial and Port facilities. Reduced property values take equity from property owners and reduce tax base and tax revenues in the affected cities, school districts, and county.

2. The Port's study shows that the Spilman's Island site would require \$22.4 million of roadway improvements (compared to at least \$95 million at Bayport). However, most of these \$22.4 million improvements would benefit the operation of the existing Barbour's Cut Container Terminal as well, while the roadway improvements listed for the Bayport site are specific to the new container terminal. The \$95 million does not include any of the cost of additional mainlane capacity of SH 146 to carry the additional truck traffic.

3. Monetizing the impact of environmental impacts is difficult, but the economic impact of environmental degradation can be seen in areas other than property values such as sales tax

income, loss of fisheries income, loss of tax base growth, and reduction in economic development opportunities (as quality of life declines).

A complete and accurate economic analysis will reveal that the cost of developing Spilman's Island is not prohibitive and, in fact, is less costly than the Bayport site. A similar economic impact comparison should likely be completed for other alternative sites, such as Pelican Island, as well.