

Apportioning the Cost of the  
2005 Captiva Island Beach Maintenance Cost

A Report to the Captiva Erosion Prevention District

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Benefits of the 2005 Beach Maintenance Project

The private benefits from the 2005 Beach Maintenance Project were distributed among Captiva properties as in TABLE 1 on the basis of a benefit analysis accepted by the CEPD Board in 2004. About one-third of the benefits were for the increased protection of gulf-front properties from storm damage, and two thirds were for the increased value of properties occupied by persons who use the beach for recreational purposes. A little over one-third of the storm protection benefits went to properties in the Upper South Seas Golf Reach including the golf course, where a \$2 million groin was constructed as part of the project, and a similar share was received by properties in the High Erosion Gold Coast Reach at the south end of the island.

TABLE 1 Private Benefits from 2005 Beach Maintenance Project	
Benefit Category	Percent of Private Benefits
<u>Storm Protection:</u>	
Golf Course	9.8
Upper South Seas Golf Course Reach	2.4
Upper South Seas Residences	1.9
Lower South Seas	1.9
Village	5.6
Tween Waters	0.1
Upper Gold Coast	1.2
High Erosion Gold Coast	11.2
East Turner Beach	0.3
Sub-Total Storm Protection	34.3
<u>Recreation:</u>	
Single Family Residences	11.1
Multi-Family Residences	29.0
Interval Properties	11.8
Commercial Properties	13.8
Sub-Total Recreation	65.7
<b>TOTAL</b>	<b>100.0</b>

Note: items may not add to totals because of rounding.

The Cost of the 2005 Beach Maintenance Project

The cost of the 2005 Beach Maintenance Project was \$20.2 million and the details are provided in TABLE 2. This was considerably higher than the \$15.7 million projected at the time of the referendum in 2004. An important reason for the increase in costs was the series of hurricanes in 2005 that disrupted construction of the project. Parts of the project were constructed twice as a result of storm damage. The additional cost of the project was more than covered by an increase in the grants received from the Federal and State governments, so that the cost to the Captiva property owners was less than projected in 2004. The delay in completing the project due to the hurricanes led to a delay in implementing the tax assessment program and required an unanticipated second annual interest payment on the bond to be paid by the CEPD. This extra payment is included in the cost figures given in TABLE 2.

TABLE 2 Cost of the 2005 Captiva Beach Maintenance Project Millions of Dollars	
Type of Cost	Amount
Construction	\$15.8
Engineering – Army Corps of Engineers	\$ 1.5
Engineering – CEPD Engineer	\$ 1.7
Monitoring & Environmental Costs	\$ 0.5
Financing, including two bond interest payments	\$ 0.7
Economist & Legal Costs	\$ 0.1
<b>Total</b>	<b>\$20.2</b>

Note: items do not add total because of rounding.

About three-fourths of the project cost was accounted for by construction, that is, placement of sand on the beach, construction of the groin south of Redfish Pass, and dune vegetation. Some of the monitoring costs will take place in the next three to five years

and are a condition of the construction permit issued by the state. The costs include construction of the Bowman's Beach project on Sanibel Island. All of these costs were covered by county and state grants –no part of these costs is being covered by the tax assessments collected from Captiva property owners.

Grants from the Federal Government, State Government and Lee County

The grants received by the CEPD from the Federal and State governments and from Lee County are detailed in TABLE 3. A total of \$6.2 million was received from Federal Government agencies, \$4.1 million was received from the State of Florida and \$3.5 million was received from Lee County.

TABLE 3 Grants Received From the Federal and State Governments and From Lee County For the 2004 Captiva Island Beach Maintenance Project Millions of Dollars	
Granting Agency	Amount
Federal Government –Army Corps of Engineers	\$ 4.8
Federal Government – FEMA	\$ 1.4
State of Florida	\$ 4.1
Lee County	\$ 3.5
Total	\$13.7

Note: the final amount of the state and federal grants will be determined after future audits by the granting agencies are conducted. A small contingency fund has been established by the CEPD in this regard.

Cost Shares By Benefit Category

The total cost of the project (\$20.2 million) less the grants received from the state and federal governments and Lee County (\$13.7 million) results in a cost to Captiva property owners of \$6.5 million. The CEPD Board used \$1,000,000 in reserves to reduce the cost to property owners to \$5.5 million. This is the total amount that must be collected by the 2007 tax assessment program. The amount charged to the properties in each of the benefit categories in TABLE 1 is proportional to the share of benefits received by each category as detailed in TABLE 1. The resulting cost shares are given in TABLE 4.

TABLE 4 Cost Shares By Benefit Category Millions of Dollars		
Benefit Category	Amount	Percent
<u>Storm Protection:</u>		
Golf Course	\$538,059	9.8
Upper South Seas Golf Course Reach	\$133,341	2.4
Upper South Seas Residences	\$104,546	1.9
Lower South Seas Village	\$101,954	1.9
Tween Waters	\$306,405	5.6
Upper Gold Coast	\$4,584	0.1
High Erosion Gold Coast	\$65,722	1.2
East Turner Beach	\$616,291	11.2
Sub-Total Storm Protection	\$14,266	0.3
	\$1,885,168	34.3
<u>Recreation:</u>		
Single Family Residences	\$613,040	11.1
Multi-Family Residences	\$1,593,905	29.0
Interval Properties	\$619,823	11.8
Commercial Properties	\$760,170	13.8
Sub-Total Recreation	\$3,616,938	65.7
<b>TOTAL</b>	<b>\$5,502,106</b>	<b>100.0</b>

The cost shares were distributed among the properties within each benefit category in proportion to their market (“just”) values as determined by the Lee County Property Appraiser as of May 2007. These values do not make the “Save Our Homes” adjustment which results in the Appraiser’s “assessed” values, nor the further adjustment for the homestead exemption which results in the Appraiser’s “taxable” values.

The procedures outlines above have been used by the CEPD Board to determine tax assessments since the first project was undertaken in 1989. Cost shares in a category were distributed by property values because project benefits to a property increase as the value of the property increases. This is most obvious in the case where a vacant property is improved. If the property is on the Gulf, the construction of a structure means that the beach project is protecting greater value on the parcel than previously. Similarly, if the property is off the Gulf, the new structure is likely to be occupied by persons enjoying recreational benefits from the beach which was not the case when the property was vacant.

Benefits also rise for improved properties as values rise relative to neighboring properties. Improved properties on the Gulf that experience increases in value obtain greater storm protection benefits; improved properties off the Gulf experience greater recreational benefits since the willingness to pay for recreational benefits increases with income and wealth.

Millage Rates By Benefit Category

Millage rates were calculated for each benefit category by dividing the cost share for the category by the aggregate just value in the category and multiplying by 1000 to express the result in mills. The results are given in TABLE 5. The millage rate is multiplied by the just value of each property expressed in thousands of dollars to determine the tax assessment for the property due to the benefit indicated by the category name. Properties in more than one category, because they receive both storm protection and recreation benefits, will have a total tax assessment composed of the sum of the two tax assessment figures.

TABLE 5 Millage Assessment Rates By Benefit Category Mills			
Benefit Category	Cost Share	Just Value	Millage Rate
Golf Course	\$538,059	\$9,456,920	56.8958
Upper South Seas Golf Course Reach	\$133,341	\$13,221,200	10.0854
Upper South Seas	\$104,546	\$114,662,400	0.9118
Lower South Seas	\$101,954	\$131,608,860	0.7747
Village	\$306,405	\$39,861,090	7.6868
Tween Waters	\$4,584	\$165,454,140	0.0277
Upper Gold Coast	\$65,722	\$92,411,120	0.7112
High Erosion Gold Coast	\$616,291	\$156,599,500	4.9355
East Turner Beach	\$14,266	\$6,128,750	2.3277
Single Family Residences	\$613,040	\$949,018,280	0.6460
Multi-Family Residences	\$1,593,905	\$227,090,180	7.0188
Interval Properties	\$649,823	\$66,009,700	9.8444
Commercial Properties	\$760,170	\$73,745,540	10.8822

Notes: one mill is one thousandth. Commercial Just Value includes the Captiva Yacht Club.

Adjustments to Millage Rates

Previous CEPD Boards have made additional adjustments for a small number of properties and the results are given in TABLE 6. These have included the phasing of storm protection millage rates between adjacent reaches of beach where there is a substantial jump in millage rates and where the conditions on the beach indicate that the change between the reaches is gradual rather than sudden. Phasing has been applied to two pairs of gulf-front reaches, namely, the transition between the Upper South Seas Golf Course and the Upper South Seas Residences Reach and the Upper Gold Coast and High Erosion Gold Coast reaches. In each of these cases the increase in the millage rate was phased in the reach characterized by the higher millage and the cost of the phasing was distributed within the adjacent reaches with the lower millages.

TABLE 6 Adjusted Millage Rates Mills	
Benefit Category	Adjusted Rate
Golf Course	56.8958
Upper South Seas Golf Course Reach	6.6379*
Upper South Seas Residences	1.3093
Lower South Seas	0.7747
Village	7.6868
Tween Waters	0.0277
Upper Gold Coast	0.7517
High Erosion Gold Coast	3.9116*
East Turner Beach	2.3277
Single Family Residences	0.6460
Multi-Family Residences	7.0188
Interval Properties	9.8444
Commercial Properties	10.8822
<b>TOTAL</b>	

\* Averages of the millage rates of phased properties.

A second adjustment applied the single family millage rate to condominiums which had homestead exemptions. This adjustment was made because the reason for the higher millage rate for condominiums was the units generated more intense beach usage. This occurred because of the frequency with which condominiums are occupied by short term renters and studies have shown that such occupants spend a larger fraction of their time on the beach. Homesteaded condominiums may not be rented on either a short term or long term basis and so they generate a beach usage that is more similar to single family homes.