



February 16, 2011

Mr. Herbert J. Malone, Jr.  
President/CEO  
Alabama Gulf Coast Convention and Visitors Bureau  
P.O. Box 457  
Gulf Shores, AL 36547

Via e-mail: hmalone@gulfshores.com

***Re: Analysis of the Proposed Payment Options, Eligibility and Substantiation Criteria, and Final Payment Methodology (collectively, the "Proposed Plan") Suggested by the Gulf Coast Claims Facility***

Dear Mr. Malone:

In accordance with our previous discussions, we have completed our analysis of the Proposed Payment Options, Eligibility and Substantiation Criteria, and Final Payment Methodology (collectively, the "Proposed Plan") suggested by the Gulf Coast Claims Facility (the "GCCF"). Specifically, we developed our opinion as to the reasonableness of the Proposed Plan with a focus on:

- (1) Is the method to calculate economic loss appropriate for the lodging industry?
- (2) Is the Loss of Income ("LOI") calculation appropriate given the fixed/variable cost structure of lodging operations?
- (3) Given the proposed approach, is adequate consideration being given to the recorded strength of the lodging industry recovery in 2010 and the enhanced outlook for continued growth in 2011 and 2012?
- (4) The GCCF estimates that the stigma associated with the oil spill will be fully dissipated within two years. Is this assumption reasonable?
- (5) Are there other factors that should be considered?

At this time we have only analyzed the components of the proposed GCCF economic loss calculation methodology. Going forward, after fully vetting the issues addressed in this report, we are prepared to assist you, or the appropriate parties, in the development of alternative formula(s) that estimate the economic loss of lodging facilities caused by the Gulf oil spill.

Our findings and conclusions concerning these issues are provided in the report that follows. We appreciate the opportunity to be of service to the Alabama Gulf Coast Convention and Visitors Bureau.

*Colliers PKF Hospitality Research*

### **Executive Summary**

**Question 1: Is the method to calculate economic loss appropriate for the lodging industry?**

*No. The recovery pattern for lodging differs in terms of timing and the potential for permanent or long-term impairment.*

**Question 2: Is the Loss of Income (“LOI”) calculation appropriate given the fixed/variable cost structure of lodging operations?**

*No. The approach suggested by the GCCF ignores the fixed/variable cost structure and the seasonality of business patterns that characterize transient lodging operations.*

**Question 3: Given the proposed approach, is adequate consideration being given to the recorded strength of the lodging industry recovery in 2010 and the enhanced outlook for continued growth in 2011 and 2012?**

*No. As noted above, 2008 and 2009 were extremely poor years for hotels and condominium rental facilities in the area served by the AGCCVB. Transient lodging demand experienced a strong rebound in the vast majority of lodging markets across the nation as well as in resort locations. The year over year decline in essentially all critical industry measures experienced in 2010 in the areas served by the AGCCVB can be comfortably attributed to the BP oil spill.*

**Question 4: The GCCF estimates that the stigma associated with the oil spill will be fully dissipated within two years. Is this assumption reasonable?**

*No, this does not appear to be a reasonable assumption; particularly in view of the opinions expressed by experts engaged by the GCCF.*

**Question 5: Are there other factors that should be considered?**

*Yes. A notable omission is any consideration for the potential diminution of property values.*

**Rationale supporting the observations noted above is provided in the following pages.**

**Question 1: Is the method to calculate economic loss appropriate for the lodging industry?**

*The Loss Formula*

The GCCF derives an economic loss for claimants based on an equation with the following form:

$$L_t = X_{10} + (.7 X_{10}) + (.3 X_{10}) \quad (1a)$$

where  $L_t$  is the total payment to a claimant paid in period  $t$  due to economic loss and  $X_{10}$  is actual documented losses of the claimant in 2010. The Facility specifies that the loss in 2011 will be 70 percent of the actual documented loss in 2010 (i.e., 0.7 times  $X_{10}$ ), and in 2012, 30 percent of the actual documented loss. These percentages appear to come from the GCCF's consultant report (Tunnell, January 31, 2011) whose estimates are based on professional and academic studies of recovery following catastrophic events that include earlier oil spills, terrorist activities, and storms (i.e. Katrina in 2005). The underlying assumptions of the GCCF formula are:

1. The economic impact on businesses in the affected area dissipates to zero beginning in 2013. Hence, there will be no permanent loss (otherwise known as impairment) experienced by claimants.
2. The dissipation rate of losses over the two year period goes from 70 percent to 30 percent.
3. The businesses in the affected area forgo any growth in their incomes during 2011 and 2012 since  $X_{10}$  is unadjusted.
4. Aside from certain fishery businesses, all types of businesses will experience the same recovery pattern.
5. The economic losses of claimants are limited to losses of operating incomes and no loss will be experienced by claimants who own the real estate underlying their businesses (i.e., property value loss).

Hypothetically assuming that  $X_{10} = \$100$ ,  $L_t$  becomes \$200 when calculated using Equation 1a and shown in Equation 1b. As noted in the GCCF announcement (GCCF 2011), claimants' economic recovery is capped at twice  $X_{10}$ .

$$200 = 100 + 70 + 30 \quad (1b)$$

We propose an alternative to the GCCF equation that relax the first three assumptions cited above and adds the reality of claimants' business situations following the spill. The last two assumptions are discussed elsewhere in this report. Our equation has the following form:

$$L_t = X_{10} + \alpha_{11}[X_{10}(1+g_{11})] + \alpha_{12}[X_{10}(1+g_{12})] + \dots + \alpha_N[X_{10}(1+g_N)] \quad (2a)$$

where  $L_t$  and  $X_{10}$  are as before;  $\alpha_{11}, \alpha_{12} \dots \alpha_N$  are loss dissipation parameters for 2011, 2012, and beyond; and  $g_{11}, g_{12} \dots g_N$  are the growth rates in business incomes in 2011, 2012, and beyond. This equation recognizes three realistic possibilities that the GCCF equation does *not* consider:

**First:**

The businesses in the Gulf region may have grown from April 20, 2010 into the future. This growth was partially forgone to business owners due to the spill. Our equation recognizes income growth after 2010. In other words  $X_{10}$  is treated as a fixed amount set by GCCF based on loss records.

**Second:**

The dissipation parameters may differ from those specified in the GCCF equation. Hence, these parameters may vary by year and across types and locations of businesses – even for businesses in the same industry. We recognize that GCCF created their equation structure and loss dissipation parameters to avoid the cost and administrative effort of devising a loss formula for each affected business, but we also recognize that the GCCF equation represents an oversimplification with respect to growth and inflexibility with respect to the length of time for recovery of different fixed-location, service businesses in the Gulf region.

**Third:**

Periods beyond 2012 are assumed to account for extended recovery in our equation and the equation can be modified slightly to account for impairment.

Putting the hypothetical numbers into Equation 2a for expository purposes begins with the following simplifying assumptions.

- $X_{10} = \$100$ .
- Recovery occurs over 4 years.
- $\alpha_{11}, \alpha_{12}, \alpha_{13}, \alpha_{14} = .7, .3, .3, \text{ and } .3$ .
- $g_{11}, g_{12}, g_{13}, g_{14} = .03$

The result becomes,

$$270.48 = 100 + .7[100(1+.03)] + .3[100(1+.03)^2] + .3[100(1+.03)^3] + .3[100(1+.03)^4] \quad (2b)$$

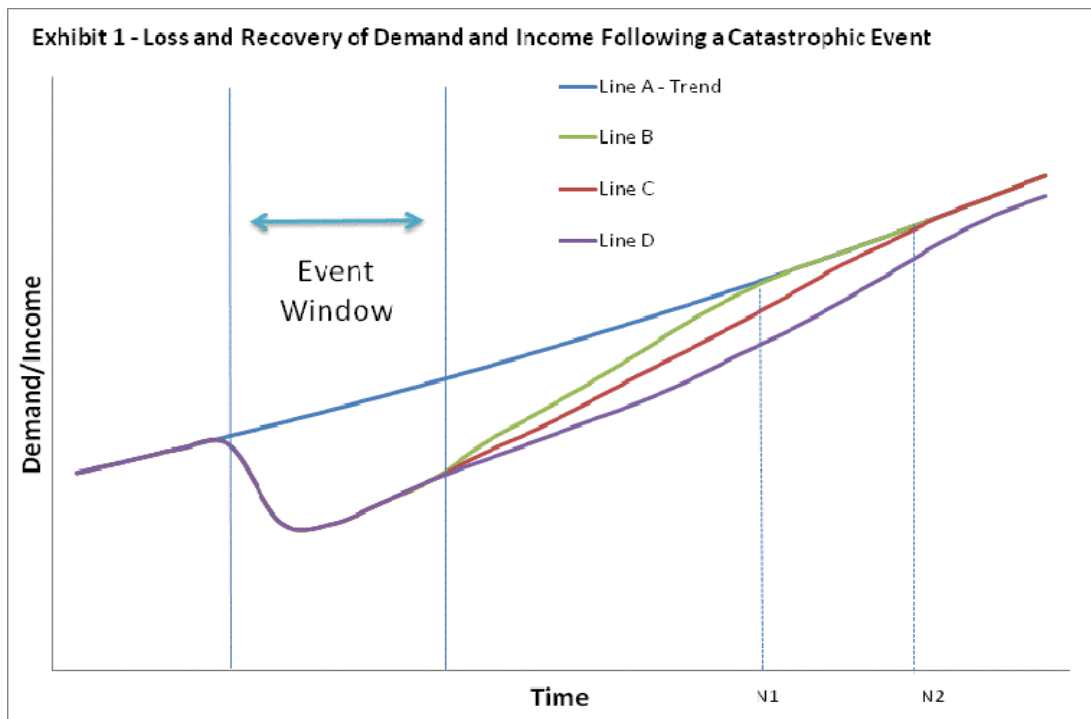
\$270.48 in dollars.

This amount, using fairly conservative assumptions for growth and loss dissipation, is approximately 35 percent greater than the amount calculated using the GCCF equation. Growth accounts for roughly four percent of the difference (i.e., \$203.93 – \$200, using only the first three terms of Equation 2b) and extended dissipation accounts for the balance. If the GCCF equation ultimately missed the length of the recovery and impairment, claimants' loss payments derived from the equation may substantially under-compensate claimants for their losses.

*How Long Will Recovery Take and at What Rate?*

The discussion in the previous section indicates that loss payments to claimants derive from  $X_{10}$  and assumptions about loss dissipation, business income growth, the length of recovery and impairment. From a business loss perspective following catastrophic events, assumptions about the length of recovery and impairment have the greatest potential impact on the calculation.

Exhibit 1 demonstrates the various dimensions of the problem of estimating demand recovery following an event that shocks the market from a catastrophic event. In the absence of catastrophic events, demand, and consequently financial performance in terms of dollar equivalents, may be assumed to follow the long-run trend line shown as Line A. Note that the long-run trend includes a modest, average growth factor. The event causes an immediate decline in demand (and sometimes supply) followed by recovery back to the trend line. The extent of the decline is proportional to the severity of the event and no intervening events, such as economic recession, are assumed.



Source: Colliers PKF Hospitality Research

Recovery paths may be affected by several factors. First, remediation efforts and expenditures shorten recovery periods if remediation is aggressively pursued by officials. These actions may be direct as for clean-up activities and indirect as for positive marketing to the public in the aftermath of the event. For example, the events sponsored by the Alabama Gulf Coast Convention and Visitors Bureau in October 2010 (two widely-attended concerts and other related, and highly promoted activities) stimulated significant demand for area hotels and rental facilities.

Second, demand may not completely return to the trend line by the end of the remediation period because those who demand the affected products and services believe that remediation has not returned the area to (near) its pre-catastrophic state, or they believe follow-up catastrophic events seem likely. We label this effect stigma. Additional discussion of stigma appears on page 11. Third, the availability of substitutes for the affected products and services influences recovery. Recovery is slower when consumers have many good substitutes. The presence of stigma and available substitutes not only delays recovery but raises the probability that demand in the affected area will never return to the trend. *The present value of difference between the monetary equivalent of demand at the end of recovery and the monetary equivalent at the trend line equals the impairment charge.*

Line B of Exhibit 1 shows an initial sharp decline of business demand and income following the first recognition of the event and a gradual and full recovery back to trend by period  $N_1$ . An extended and slightly different recovery slope (i.e., dissipation rate) than B is presented as Line C. Line D indicates the case in which recovery is slowed by stigma and never recovers to trend, this suggesting impairment.

#### *The GCCF Assumptions Regarding Recovery Time and Dissipation*

The GCCF makes the assumptions that complete recovery of business income will occur over a two-year period – 2011 and 2012 – and the rate will be 30 percent in 2011 then 70 percent in 2012. These estimates do not conform to relevant information contained in reports supplied by GCCF and consultants. Some discrepancies are as follows:

- 1) The Oxford Economics report provides results from a survey of Gulf Coast area travelers following the spill. This report contains a wealth of information leading to the conclusion that the effects of the spill will linger for five years or longer (p.8), that clean up will take three years (p. 10) and that recovery from larger spills may take three years. Note that the Tunnell report repeatedly refers to this spill as the “largest accidental marine oil spill in history after releasing over 200 million gallons (p.1).” The Oxford report also highlights the widespread availability of trism substitutes to the Gulf area, several of which exist outside the Southeastern U.S. (p.7).

- 2) The GCCF estimates seem to overweight smaller non- oil spill catastrophic events since several of the studies of disease-related catastrophic events were followed by recovery within two years (ARPC p. 31). The larger events, such as Katrina and 9/11, have documented recovery times of three to five years. One study of 9/11 impacts states that “However, by 2004 tourism in Hawaii had fully recovered from 9/11 and other terrible international events after 2011, but this was not the case for the U.S overall. (Bonham et. al. p.8)”
- 3) Information regarding how the dissipation estimates were derived is difficult to find in the GCCF supporting documents. It seems only right that claimants be better informed about how the 70/30 percent loss ratio was derived.

*Could Losses be Permanent?*

Another omission in the GCCF’s presentations is a discussion of the possibility that business impairment may result from the spill. The assumption is that Gulf area visitation will completely return to trend. Many businesses today are taking impairment charges following the financial crisis. The analogy of the financial crisis impact on financial services businesses and the spill impact on tourism businesses is possible. The GCCF’s formula fails to distinguish among businesses that will and will not fully recover.

**Question 2: Is the Loss of Income (“LOI”) calculation appropriate given the fixed/variable cost structure of lodging operations?**

The GCCF appears to apply a constant, or uniform, Loss of Income (“LOI”) factor to the estimated Lost Revenues (the difference between reported revenues for 2010 and the average of Actual Revenues for 2008 and 2009). Research of lodging industry behavior reveals that this approach is inappropriate. In the paragraphs that follow, we discuss several operating conditions for hotels, motels, and vacation rental units that create the need to develop multiple LOIs to apply to the various forms of lodging facilities that operate in the Alabama Gulf Coast region.

*Profitability Varies By Property Type*

The profitability of lodging operations varies greatly depending on the extent of facilities and services offered. Since 1936, Colliers PKF Hospitality Research (“PKF-HR”) has conducted an annual survey of hotel financial performance entitled *Trends® in the Hotel Industry*. The 2010 *Trends®* survey incorporates data from 6,500 hotels and motels located all across the nation.

With the data collected from the *Trends®* survey, we are able to calculate the net operating income (“NOI”) and profit margin ratios for the wide variety of hotels that operate within the United States. For purposes of this analysis, net operating income is

defined as income before deductions for capital reserves, rent, interest, income taxes, depreciation and amortization. Profit margin is calculated by dividing NOI into total hotel revenue.

In general, the greater the facilities and services offered at a lodging facility, the lower the profit margin, but the higher the dollar value of the NOI. Full-service hotels (properties that operate food and beverage outlets) and resorts (properties that provide recreational facilities) fall into this category. Because of the extra amenities, full-service hotels and resorts typically charge higher rental rates, but have greater operating expenses.

Conversely, limited-service hotels achieve the greatest profit margins, but lower dollar net operating incomes. Because these hotels do not operate restaurants, lounges, or golf courses, they have less of a need for labor and other operating expenses. However, in general, they typically charge lower room rates.

Exhibit 2 summarizes the average profits (measured on a dollar-per-available room basis) and profit margins achieved in 2007 and 2009 by the hotels that participated in the *Trends® in the Hotel Industry* survey (2010 data is currently being collected and processed). These data are presented to demonstrate how hotel profits and profit margins vary by property type during both prosperous (2007) and recessionary (2009) years for the U.S. lodging industry.

### Exhibit 2

#### Hotel Profitability\* by Property Type

| Property Type         | 2007                       |               | 2009                       |               |
|-----------------------|----------------------------|---------------|----------------------------|---------------|
|                       | Dollars Per Available Room | Profit Margin | Dollars Per Available Room | Profit Margin |
| Limited Service Hotel | \$ 8,403                   | 40.4%         | \$ 6,025                   | 34.6%         |
| Full Service Hotel    | \$ 16,814                  | 27.9%         | \$ 9,580                   | 20.1%         |
| Resort                | \$ 26,824                  | 26.5%         | \$ 17,447                  | 20.2%         |

Note: \* Profits are defined as income before deductions for capital reserves, rent, interest, income taxes, depreciation, and amortization.

Source: Colliers PKF Hospitality Research, *Trends® in the Hotel Industry*

#### *Profitability Is Influenced By Consistency of RevPAR*

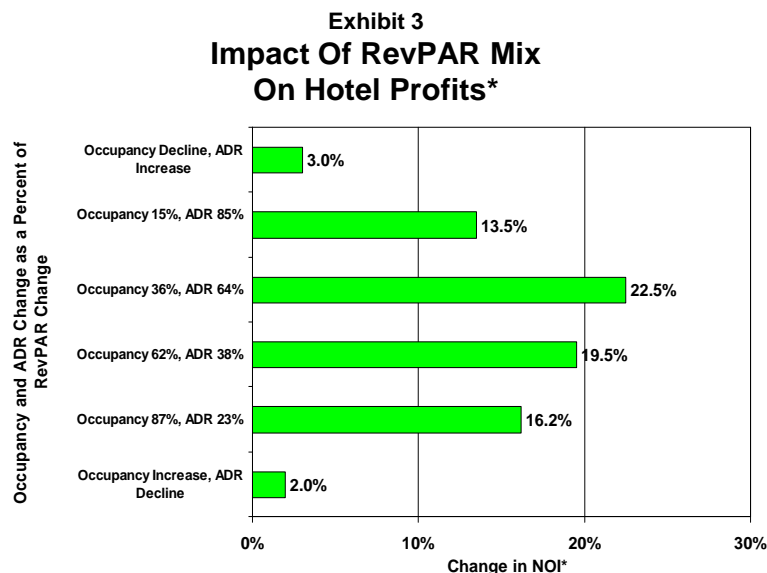
The amount of rooms revenue (Revenue per Available Room, or “RevPAR”) earned by a lodging facility is driven by the number of rooms rented and the price paid to rent each room. In the lodging industry, the number of rooms rented is measured as a percent of the number of rooms available. This ratio is known as the occupancy rate. The average price paid to rent a guest room is defined as average daily room rate (“ADR”). In summary, the product of multiplying occupancy times ADR equals the room rental revenue (RevPAR) realized by a lodging facility.

Hotel profitability is influenced by the mix of occupancy and ADR driving RevPAR. In general, when the influence of ADR on RevPAR is greater than the influence of occupancy, hotels are more profitable. This finding was the result of an analysis conducted by PKF-HR on the performance of hotels in our *Trends® in the Hotel Industry* database during the period 1995 to 2009. The following equation summarizes the results of our analysis:

$$\text{NOI change} = -0.02 + 2.07 \text{ ADR} + 1.38 \text{ Occupancy}, r^2=.97.$$

Stated differently, a 1.0 percent increase in ADR will have a roughly 50 percent greater impact on NOI than a 1.0 percent increase in occupancy. The primary reason is the additional variable expenses associated with servicing incremental rooms sold.

For the November 2010 issue of *Lodging* magazine, PKF-HR conducted an analysis of the consistency of RevPAR growth and increases in NOI. The purpose was to provide parameters of profit growth that U.S. hoteliers could expect while recovering from the 2008 – 2009 industry recession. Accordingly, we analyzed changes in hotel performance from 2003 to 2004, a comparable period of recovery from the 2001-2002 industry recession. Exhibit 3 presents the results of our analysis.



Note: \* Before deduction for capital reserve, rent, interest, income taxes, depreciation, and amortization.

Source: Colliers PKF Hospitality Research, 2003 - 2004 *Trends® in the Hotel Industry* database.

As shown in Exhibit 3, NOI growth was greatest when RevPAR change was predominantly driven by ADR. However, some growth in occupancy did contribute to gains on the bottom-line because of the increased patronage at other revenue generating sources within the hotels (ex. restaurants, lounges, retail and recreation).

Based on data provided by the Alabama Gulf Coast Convention and Visitors Bureau (“AGCCVB”), the peak season for lodging facilities in the region occurs during the

summer months of June, July, and August. From 1998 to 2009, the ADR of the hotels in the region achieved an ADR premium multiple of approximately 1.31 during these months compared to the annual ADR. For condominium room rentals, the ADR premium ratio was an even greater 1.52.

Since ADR levels are at their highest during the summer months, it can be assumed that the profit margin for lodging facilities in the region are also at their highest during this period. Because the regional hotels and condominium rentals are most “profit efficient” during the summer months, the impact on profitability was most likely greatest during the time period impacted by the oil spill, as opposed to during other months of the year. Accordingly, the impact of lodging profits needs to be analyzed on a seasonal basis, not just one annualized profit margin, or LOI.

*Profitability Is Influenced By Fixed / Variable Expense Ratios*

Like many industries, expenses at lodging facilities can be divided into three categories:

- Fixed
- Variable
- Semi-variable.

Variable expenses are incurred when there is a change in business volume. At lodging facilities, business volume is mostly dictated by changes in the number of rooms occupied, or guests staying at the property. On occasion, higher operating expenses can also be influenced by increased local patronage and growth in revenue. Examples of variable expenses within a lodging facility include such items as rooms supplies, housekeeping labor, and the cost of food sold. In addition, management and franchise fees are frequently calculated as a percent of revenue, and therefore move in sync with changes in revenue.

Fixed expenses are costs that do not materially change with business volume. Within a lodging facility, examples of fixed expenses include the labor costs for minimum staffing levels, year-round management salaries, property taxes, and insurance.

Most variable expenses have both a fixed component to them, and vary to some degree based on business volume. For example, a lodging facility must provide a minimum level of heating and air conditioning year round to preserve both the building and its contents. However, this expense does increase as more guest rooms are occupied and more patrons are eating in the restaurant.

Like profit margins, the ratio of fixed to variable expenses differs among property types. Exhibit 4 presents estimated fixed / variable ratios for the major cost centers within a lodging facility.

**Exhibit 4****Range of Fixed and Variable Expenses In A Hotel**

| <u>Department</u>          | <u>Percent Fixed</u> | <u>Percent Variable</u> | <u>Index Of Variability</u> |
|----------------------------|----------------------|-------------------------|-----------------------------|
| Rooms                      | 50 to 70             | 30 to 50                | Occupied Rooms              |
| Food and Beverage          | 35 to 60             | 40 to 65                | Food and Beverage Revenue   |
| Administrative and General | 65 to 85             | 15 to 35                | Total Revenue               |
| Sales and Marketing        | 65 to 85             | 15 to 35                | Total Revenue               |
| Repairs and Maintenance    | 55 to 75             | 25 to 45                | Total Revenue               |
| Utilities                  | 80 to 95             | 5 to 20                 | Total Revenue               |
| Management Fee             | 0                    | 100                     | Total Revenue               |
| Property Taxes             | 100                  | 0                       | Total Revenue               |
| Insurance                  | 100                  | 0                       | Total Revenue               |

Source: Hospitality Valuation Services

Because of the “24/7” nature of the lodging industry, hotels and rental condominiums have a large fixed expense component to their operations. Whether a lodging facility is operating at an occupancy of 10 percent or 90 percent, management needs to maintain a minimum amount of staffing, heating and/or air conditioning, marketing efforts for the future, and administrative functions, as well as pay property taxes and insurance. Despite the decrease in business volume at lodging facilities in the Alabama Gulf Coast region attributable to the oil spill, these operations continued to incur these minimum cost levels for labor, goods, and services. Some variable expenses were able to be cut, but the fixed and semi-variable expenses were still realized.

Conversely, since the revenue losses attributable to the oil spill occurred during the peak season when occupancy levels are at their greatest, the incremental profitability of the lost revenue is extremely high. From 1999 to 2009, summer occupancy levels averaged 78 percent at hotels and 69 percent for condominium rentals. At these high levels of occupancy, all fixed costs are covered and the only expenses to be deducted from incremental revenue gains are a few minor variable costs. Again, Alabama Gulf Coast lodging facilities are most “profit efficient” during their peak summer months, the time of the greatest impact from the oil spill. The loss of profit relative to the loss of revenue is not the same throughout the year and requires seasonal adjustments to the LOI.

In summary concerning Question 2, the application of one LOI factor does not appropriately account for the multiple operational characteristics of lodging facilities that influence their profitability. The following factors impact lodging profitability:

- Lodging facilities vary by the level of services, facilities, and amenities they offer.
- Lodging facilities are seasonal operations. There are significant differences in pricing and performance metrics throughout the year.

- The Alabama Gulf Coast lodging facilities were impacted the most during their peak season. Because of the high occupancy and ADR levels, this is their most profitable time of the year.
- Despite the declines in visitation and lodging occupancy, lodging owners and operators still expended monies for their fixed and semi-variable expenses in 2010.

PKF-HR, using its proprietary *Hotel Horizons®* econometric forecasting model and *Trends® in the Hotel Industry* database, is in a unique position to provide a more rigorous determination of the impact of the preceding factors on lost lodging profits.

**Question 3: Given the proposed approach, is adequate consideration being given to the recorded strength of the lodging industry recovery in 2010 and the enhanced outlook for continued growth in 2011 and 2012?**

*U.S. Lodging Industry Performance Overview*

After suffering through the all-time worst year of performance in 2009, the domestic lodging industry experienced a definite turnaround in 2010. According to Smith Travel Research (“STR”), the critical measures of demand (+7.7 percent (a record)), occupancy (+5.6 percent) and RevPAR (+5.5 percent) all experienced substantial increases in 2010. Considering the drags on the economy such as the depressed housing market, high unemployment, and Federal deficit worries, the swift pace of recovery in the lodging industry in 2010 was remarkable. Recently released updated forecasts from PKF-HR reveal that a base has been established for very strong gains in both revenue and profits in the years to come.

Exhibit 5 illustrates the performance of the U.S. lodging industry during the period 2008 through 2010.

| Exhibit 5 |           |                |                    |                |          |                |
|-----------|-----------|----------------|--------------------|----------------|----------|----------------|
| Year      | Occupancy | Percent Change | Average Daily Rate | Percent Change | RevPAR   | Percent Change |
| 2008      | 59.8%     | -4.8%          | \$ 107.31          | 3.0%           | \$ 64.17 | -2.1%          |
| 2009      | 54.5%     | -8.9%          | \$ 98.19           | -8.5%          | \$ 53.51 | -16.6%         |
| 2010      | 57.5%     | 5.6%           | \$ 98.07           | -0.1%          | \$ 56.39 | 5.5%           |
| 2011F     | 60.1%     | 4.5%           | \$ 102.58          | 4.6%           | \$ 61.65 | 9.3%           |
| 2012F     | 61.7%     | 2.7%           | \$ 109.76          | 7.0%           | \$ 67.72 | 9.9%           |

Source: Smith Travel Research, PKF-HR

The near-term future is expected to be that much brighter given the new tax laws enacted in early January by Congress and the Obama Administration. This outlook is reflected in the forecast data within Exhibit 5 above.

The U.S. lodging industry is highly dependent on the health of the macro economy to sell their products: guestrooms, food and beverage services, and meeting rooms. According to estimates from Moody's Analytics, the new tax plan has the potential to profoundly affect the state of the U.S. economy in 2011. The *Hotel Horizons*<sup>®</sup> forecasting models developed by PKF-HR over the past 10 years, which rely on historic and forecast data from Moody's Analytics, are driven by underlying economic movements to predict the performance of hotels. The econometrically based models rely primarily on changes in real personal income and total payroll employment. The parsimonious quality and explanatory power of these variables relative to changes in lodging demand is significant and far superior to other measures.

The new tax plan includes provisions that not only extends the Bush-era tax rates, but also introduced a payroll tax reduction of 2.0 percent of wages, effective January 1, 2011. According to Moody's Analytics, this provision alone could boost consumer spending by upwards of \$120 billion. While the continuation of the existing tax rates was largely expected and was incorporated by Moody's in their previous U.S. forecasts, the payroll tax reduction proposal, which effectively would give the vast majority of working Americans a 2.0 percent pay raise, took many macro economists by surprise. According to Moody's Analytics, this additional income would be a boon to consumer spending which in turn would increase overall domestic production, thus stimulating the need for additional employees. Importantly, while the psychological effects of tax policy certainty over the next year could provide a spending bump (albeit a difficult to quantify one), the payroll tax reduction is directly measurable. Moody's estimates that the increase in GDP of 4.0 percent (up from a pre-new law forecast of 2.8 percent) will result in the creation of 2.8 million jobs in 2011 (up from 1.3 million).

The December 2010 to February 2011 edition of *Hotel Horizons*<sup>®</sup> (the 'Pre-Tax Law Change scenario') was based on an employment outlook reflective of the pre-tax plan forecast of 1.3 million jobs added in 2011, and a 2.8 percent increase in GDP. The incremental 1.5 million more jobs than originally expected will stimulate greater levels of corporate and leisure lodging demand nationwide.

Exhibit 6 below outlines how lodging performance in 2011 is forecast to be impacted given the potential impact of employment taxes being reduced from 6.2 percent to 4.2 percent on January 1, 2011. The improved economic outlook is now expected to lead to a 5.3 increase in demand, 200 bps greater than the previous PKF-HR forecast. These additional travelers would allow hoteliers to become even more aggressive with their pricing strategies such that the previous average daily room rate forecast increase of 3.9 percent improves to 4.6 percent for 2011.

These higher occupancy and average daily rate levels yields a 280 bps improvement over the already attractive 6.2 percent increase in revenue per available room, in the pre-tax law change scenario. The expected 11.1 percent lift in Net Operating Income

for the typical U.S. hotel expands to 16.0 percent as a result of the new tax laws that became effective January 1, 2011.

| <b>Exhibit 6</b>                                                |                         |                        |                                     |                         |                                       |  |
|-----------------------------------------------------------------|-------------------------|------------------------|-------------------------------------|-------------------------|---------------------------------------|--|
| <b>PKF-HR Updated Forecasts for 2011 Reflecting New Tax Law</b> |                         |                        |                                     |                         |                                       |  |
|                                                                 | <b>Change in Demand</b> | <b>Occupancy Level</b> | <b>Change in Average Daily Rate</b> | <b>Change in RevPAR</b> | <b>Change in Net Operating Income</b> |  |
| Pre-Tax Law Change                                              | 3.3%                    | 58.9%                  | 3.9%                                | 6.2%                    | 11.1%                                 |  |
| Updated Forecast Reflecting New Tax Law                         | 5.3%                    | 60.1%                  | 4.6%                                | 9.0%                    | 16.0%                                 |  |
| Source: Colliers PKF Hospitality Research                       |                         |                        |                                     |                         |                                       |  |

*Benchmarking the AGCCVB Market Against All U.S. Hotels and All U.S. Resort Locations*

To better understand the level of impact on AGCCVB area hotels and rental facilities that has resulted thus far from the oil spill, we have compiled the following occupancy, average daily rate and RevPAR comparisons:

- a) All U.S. Hotels
- b) All U.S. Resort Locations
- c) AGCCVB Area Hotels
- d) AGCCVB Area Condominium Rental Facilities

These data, and select observations related thereto, are provided in the Exhibits 7 through 10 and are discussed in the paragraphs that follow.

*Occupancy*

Exhibits 7 and 8 summarize the annual level, and period to period change, in occupancy levels for the four (4) groupings identified. Perhaps most noteworthy is the change in occupancy for all U.S. hotels and all U.S. hotels in resort locations from 2009 to 2010. During this period, industry-wide occupancy increased 5.7 percent for all hotels, while all hotels in resort locations increased by 4.4 percent. Conversely, occupancy levels for the AGCCVB hotels and rental condominiums declined 3.6 percent and 13.9 percent, respectively. It is reasonable to expect that much, if not all, of the disparate performance level realized at the AGCCVB lodging facilities may be attributable to the Gulf oil spill.

| <b>Exhibit 7</b>             |                            |                             |                          |                                           |
|------------------------------|----------------------------|-----------------------------|--------------------------|-------------------------------------------|
| <b>Occupancy Comparison</b>  |                            |                             |                          |                                           |
|                              | <b>All U.S.<br/>Hotels</b> | <b>Resort<br/>Locations</b> | <b>AGCCVB<br/>Hotels</b> | <b>AGCCVB<br/>Condominium<br/>Rentals</b> |
| 2005                         | 63.0%                      | 66.3%                       | 72.5%                    | 53.2%                                     |
| 2006                         | 63.1%                      | 65.9%                       | 61.3%                    | 45.6%                                     |
| 2007                         | 62.8%                      | 65.6%                       | 58.2%                    | 46.6%                                     |
| 2008                         | 59.8%                      | 61.5%                       | 51.8%                    | 44.8%                                     |
| 2009                         | 54.6%                      | 56.9%                       | 49.6%                    | 43.7%                                     |
| 2010                         | 57.6%                      | 59.4%                       | 47.8%                    | 37.6%                                     |
| L.R.A.                       | 62.0%                      | 65.1%                       | 56.1%                    | 49.8%                                     |
| L.R.A. = Long Run Average    |                            |                             |                          |                                           |
| Sources: PKF-HR, STR, AGCCVB |                            |                             |                          |                                           |

| <b>Exhibit 8</b>                           |                            |                             |                          |                                           |
|--------------------------------------------|----------------------------|-----------------------------|--------------------------|-------------------------------------------|
| <b>Occupancy Percent Change Comparison</b> |                            |                             |                          |                                           |
|                                            | <b>All U.S.<br/>Hotels</b> | <b>Resort<br/>Locations</b> | <b>AGCCVB<br/>Hotels</b> | <b>AGCCVB<br/>Condominium<br/>Rentals</b> |
| 2005                                       | 2.9%                       | 1.0%                        | 11.6%                    | -16.9%                                    |
| 2006                                       | 0.2%                       | -0.6%                       | -15.5%                   | -14.1%                                    |
| 2007                                       | -0.5%                      | -0.5%                       | -5.1%                    | 2.1%                                      |
| 2008                                       | -4.7%                      | -6.3%                       | -11.0%                   | -3.8%                                     |
| 2009                                       | -8.8%                      | -7.5%                       | -4.2%                    | -2.4%                                     |
| 2010                                       | 5.7%                       | 4.4%                        | -3.6%                    | -13.9%                                    |

2008 and 2009 were particularly poor years for the AGCCVB area hotels and rental condominium facilities. The reported occupancy in those years for hotels was 430 Bases Points (“bp”) (2008) and 650 bp (2009) below the long run average level. For condominium rentals, the reported occupancies in those years were 500 bp (2008) and 610 bp (2009) below the long run average level. Thus, using these two years as a foundation for estimating losses attributable to the BP oil spill is inappropriate.

#### *Average Daily Rate*

The data in Exhibit 9 illustrate a comparison of the year-over-year change in average daily rate achieved for the four (4) groupings identified. The decline in ADR realized in 2009 by all U.S. hotels and all U.S. hotels in resort locations (-8.6 percent for all hotels; -11.6 percent for all hotels in resort locations) was much more severe than that realized at the AGCCVB area facilities. Conversely, while ADR levels essentially remained flat in 2010, ADR levels for the AGCCVB hotels and rental condominiums declined 11.0 percent and 15.2 percent, respectively. It is reasonable to expect that much, if not all, of the disparate performance level realized at the AGCCVB lodging facilities may be attributable to the Gulf oil spill.

| <b>Exhibit 9</b>                                    |                            |                             |                          |                                           |
|-----------------------------------------------------|----------------------------|-----------------------------|--------------------------|-------------------------------------------|
| <b>Average Daily Rate Percent Change Comparison</b> |                            |                             |                          |                                           |
|                                                     | <b>All U.S.<br/>Hotels</b> | <b>Resort<br/>Locations</b> | <b>AGCCVB<br/>Hotels</b> | <b>AGCCVB<br/>Condominium<br/>Rentals</b> |
| 2005                                                | 5.6%                       | 6.0%                        | 10.3%                    | 4.4%                                      |
| 2006                                                | 7.6%                       | 7.8%                        | -4.2%                    | -7.1%                                     |
| 2007                                                | 6.4%                       | 5.8%                        | 8.5%                     | 19.7%                                     |
| 2008                                                | 2.9%                       | 1.8%                        | 5.4%                     | -2.8%                                     |
| 2009                                                | -8.6%                      | -11.6%                      | -3.5%                    | -6.3%                                     |
| 2010                                                | -0.1%                      | 0.0%                        | -11.0%                   | -15.2%                                    |
| L.R.A.                                              | 2.8%                       | 2.9%                        | 2.4%                     | 4.1%                                      |
| L.R.A. = Long Run Average                           |                            |                             |                          |                                           |
| Sources: PKF-HR, STR, AGCCVB                        |                            |                             |                          |                                           |

#### *Revenue per Available Room*

The data in Exhibit 10 illustrate a comparison of the year-over-year change in RevPAR achieved for the four (4) groupings identified. The decline in RevPAR realized in 2009 by all U.S. hotels and all U.S. hotels in resort locations (-16.7 percent for all hotels; -18.3 percent for all hotels in resort locations) was much more severe than that realized at the AGCCVB facilities. Conversely, while RevPAR levels increased by 5.6 percent

and 4.4 percent, respectively, for all U.S. hotels and all U.S. hotels in resort locations, RevPAR levels for the AGCCVB hotels and rental condominiums declined 14.2 percent and 27.0 percent, respectively. It is reasonable to expect that much, if not all, of the disparate performance level realized at the AGCCVB lodging facilities may be attributable to the Gulf oil spill.

| <b>Exhibit 10</b>                                           |                        |                         |                      |                                   |
|-------------------------------------------------------------|------------------------|-------------------------|----------------------|-----------------------------------|
| <b>Revenue per Available Room Percent Change Comparison</b> |                        |                         |                      |                                   |
|                                                             | <b>All U.S. Hotels</b> | <b>Resort Locations</b> | <b>AGCCVB Hotels</b> | <b>AGCCVB Condominium Rentals</b> |
| 2005                                                        | 8.6%                   | 7.1%                    | 23.1%                | -13.3%                            |
| 2006                                                        | 7.9%                   | 7.2%                    | -19.1%               | -20.2%                            |
| 2007                                                        | 5.9%                   | 5.4%                    | 3.0%                 | 22.2%                             |
| 2008                                                        | -2.0%                  | -4.6%                   | -6.2%                | -6.5%                             |
| 2009                                                        | -16.7%                 | -18.3%                  | -7.5%                | -8.6%                             |
| 2010                                                        | 5.6%                   | 4.4%                    | -14.2%               | -27.0%                            |
| L.R.A.                                                      | 2.5%                   | 2.5%                    | -1.3%                | 2.4%                              |
| L.R.A. = Long Run Average                                   |                        |                         |                      |                                   |
| Sources: PKF-HR, STR, AGCCVB                                |                        |                         |                      |                                   |

As noted previously, 2008 and 2009 were particularly poor years for the AGCCVB area hotels and rental condominium facilities. The reported RevPAR change in those years for hotels was 490 bp (2008) and 620 bp (2009) below the long run average annual change amount. For condominium rentals, the RevPAR change in those years was 890 bp (2008) and 1100 bp (2009) below the long run average level. Thus, once again, using these two years as a foundation for estimating losses attributable to the BP oil spill is inappropriate.

#### *Applying an Econometric Approach*

Here we summarize the initial results of our efforts to objectively quantify the effect of the BP oil spill on the AGCCVB lodging market. In our preliminary analysis, we used hotel and condo supply, demand and revenue data provided to us and compiled by the AGCCVB. The data series is reported to the AGCCVB by local hotel and condo operators. For this study, we used quarterly data dating from 2000 through 2010.

Using a sharedown regression approach, reported RevPAR levels (dependent variable) for both condos and hotels were compared against the historical all U.S. resort location data series from Smith Travel Research (independent variable). The use of the all U.S.

resort series acts as an economic proxy, capturing the economic health of resort markets across the U.S. All RevPAR has been adjusted to 2010 dollars (real average daily RevPAR). The use of dummy variables control for external events unexplainable by the macroeconomic conditions captured with the all resort series (independent variables). These dummy control variables are outlined in Exhibit 11:

### Exhibit 11

| External Event                                                                           | Impact Quarters        |
|------------------------------------------------------------------------------------------|------------------------|
| September 11 <sup>th</sup> 2001, anti-air travel stigma helps gulf shores accommodations | 01Q3, 01Q4, 02Q1, 02Q2 |
| Hurricane Ivan removes 50% of supply                                                     | 04Q3, 04Q4, 05Q1, 05Q2 |
| Hurricane Katrina affects demand                                                         | 05Q3, 05Q4, 06Q1       |
| Oil Spill affects demand                                                                 | 10Q2, 10Q3             |

Seasonal dummy variables were also introduced to capture quarter to quarter variations.

### Preliminary Results

Exhibits 12 and 13 outline the results of the following equation analyzing the oil spill's affect on condo (Exhibit 12) and hotel (Exhibit 13) RevPAR:

$$r\text{CondoRevPAR} = f(r\text{ResortRevPAR} | \text{ExternalEventDummies} | \text{SeasonalDummies} | e)$$

$$r\text{HotelRevPAR} = f(r\text{ResortRevPAR} + \text{ExternalEventDummies} + \text{SeasonalDummies} + e)$$

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**Exhibit 12: Condo Real RevPAR Regression Results (00Q1-10Q4):**

| <i>Regression Statistics</i> |          |
|------------------------------|----------|
| Multiple R                   | 0.990114 |
| R Square                     | 0.980327 |
| Adjusted R Square            | 0.948723 |
| Standard Error               | 12.2647  |
| Observations                 | 44       |

| <i>ANOVA</i> |           |           |           |          |                       |
|--------------|-----------|-----------|-----------|----------|-----------------------|
|              | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> |
| Regression   | 8         | 269840.7  | 33730.09  | 224.2351 | 1E-27                 |
| Residual     | 36        | 5415.224  | 150.4229  |          |                       |
| Total        | 44        | 275255.9  |           |          |                       |

|                    | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
|--------------------|---------------------|-----------------------|---------------|----------------|------------------|------------------|--------------------|--------------------|
| Intercept          | 0                   |                       |               |                |                  |                  |                    |                    |
| Real Resort RevPAR | 0.228951            | 0.050889              | 4.499038      | 6.87E-05       | 0.125743         | 0.332158         | 0.125743           | 0.332158           |
| 911 Dummy          | 4.600707            | 6.461773              | 0.711988      | 0.481061       | -8.50438         | 17.70579         | -8.50438           | 17.70579           |
| Ivan Dummy         | 16.87008            | 6.542332              | 2.578604      | 0.014155       | 3.601619         | 30.13855         | 3.601619           | 30.13855           |
| Katrina Dummy      | -3.78824            | 7.565723              | -0.50071      | 0.619623       | -19.1322         | 11.55576         | -19.1322           | 11.55576           |
| Oil Spill Dummy    | -47.5844            | 9.160665              | -5.19443      | 8.28E-06       | -66.1631         | -29.0057         | -66.1631           | -29.0057           |
| Q1                 | 19.0853             | 6.079552              | 3.139262      | 0.003375       | 6.755401         | 31.4152          | 6.755401           | 31.4152            |
| Q2                 | 81.9186             | 5.992823              | 13.66945      | 8.05E-16       | 69.76459         | 94.0726          | 69.76459           | 94.0726            |
| Q3                 | 89.60194            | 5.82219               | 15.38973      | 2.07E-17       | 77.79399         | 101.4099         | 77.79399           | 101.4099           |

The high adjusted R square statistic suggests a tight data fit. The oil spill coefficient reads -47.58, suggesting a \$47.58 negative impact on real average daily RevPAR levels for the period 10Q2-10Q3. Table 1 that follows displays the actual and estimated scenarios if no oil spill occurred:

**Table 1: Oil Spill Affect on AGCCVB Area Condominium Rentals**

| <b>Period</b> | <b>Actual RevPAR</b> | <b>Estimated RevPAR</b> | <b>Difference \$</b> | <b>Difference %</b> |
|---------------|----------------------|-------------------------|----------------------|---------------------|
| 10Q2          | \$64.87              | \$112.46                | -\$47.58             | -42.3%              |
| 10Q3          | \$47.57              | \$95.15                 | -\$47.58             | -50.0%              |

**Exhibit 13: Hotel Real RevPAR Regression Results (00Q1-10Q4):**

| <i>Regression Statistics</i> |          |
|------------------------------|----------|
| Multiple R                   | 0.991834 |
| R Square                     | 0.983735 |
| Adjusted R Square            | 0.952794 |
| Standard Error               | 11.79575 |
| Observations                 | 44       |

| <i>ANOVA</i> |           |           |           |          |                       |
|--------------|-----------|-----------|-----------|----------|-----------------------|
|              | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> |
| Regression   | 8         | 302950.8  | 37868.86  | 272.1641 | 3.61E-29              |
| Residual     | 36        | 5009.033  | 139.1398  |          |                       |
| Total        | 44        | 307959.9  |           |          |                       |

|                    | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
|--------------------|---------------------|-----------------------|---------------|----------------|------------------|------------------|--------------------|--------------------|
| Intercept          | 0                   |                       |               |                |                  |                  |                    |                    |
| Real Resort RevPAR | 0.408899            | 0.048943              | 8.354595      | 6E-10          | 0.309638         | 0.508161         | 0.309638           | 0.508161           |
| 911 Dummy          | -1.3807             | 6.214703              | -0.22217      | 0.82544        | -13.9847         | 11.22331         | -13.9847           | 11.22331           |
| Ivan Dummy         | 14.2055             | 6.292182              | 2.257643      | 0.030129       | 1.444367         | 26.96664         | 1.444367           | 26.96664           |
| Katrina Dummy      | 15.50536            | 7.276444              | 2.130898      | 0.039998       | 0.748049         | 30.26267         | 0.748049           | 30.26267           |
| Oil Spill Dummy    | -25.52              | 8.810402              | -2.89658      | 0.00638        | -43.3883         | -7.6517          | -43.3883           | -7.6517            |
| Q1                 | 5.323457            | 5.847097              | 0.910444      | 0.368644       | -6.535           | 17.18192         | -6.535             | 17.18192           |
| Q2                 | 73.07157            | 5.763684              | 12.67793      | 7.69E-15       | 61.38228         | 84.76087         | 61.38228           | 84.76087           |
| Q3                 | 70.76316            | 5.599575              | 12.63724      | 8.46E-15       | 59.4067          | 82.11963         | 59.4067            | 82.11963           |

Again, the high adjusted R square statistic suggests a tight data fit. The oil spill coefficient reads -25.52, suggesting a \$25.52 negative impact on real average daily RevPAR levels for the period 10Q2-10Q3. Table 2 displays the actual and estimated scenarios if no oil spill occurred:

**Table 2: Oil Spill Affect on AGCCVB Area Hotels**

| <b>Period</b> | <b>Actual RevPAR</b> | <b>Estimated RevPAR</b> | <b>Difference \$</b> | <b>Difference %</b> |
|---------------|----------------------|-------------------------|----------------------|---------------------|
| 10Q2          | \$84.53              | \$110.05                | -\$25.52             | -23.2%              |
| 10Q3          | \$72.93              | \$98.45                 | -\$25.52             | -25.9%              |

## Conclusion

Hotels and rental condominiums in the region reported a severe impact to occupancy, ADR and RevPAR during the second and third quarters of 2010. Our analysis shows that while controlling for outside influences to the properties' performance, the oil spill caused direct and measurable damage upon hotel and condo performance. The sharedown approach accounts for growth that was realized in the U.S. resort market and applies the historical relationship to the two data series share to calculate the potential levels of area performance without the spill. If the oil spill had not occurred, we estimate that condo operators would have seen a RevPAR level approximately 100% greater than observed in 10Q2 and 10Q3, and a 30% greater performance would have been achieved by hotels for the same period.

Importantly, the results of this preliminary analysis once again illustrates that using the simple the average of the 2008 and 2009 performance levels as a basis for estimating losses is inappropriate. The use of econometric analyses is a more appropriate approach in terms of developing an historical comparison.

**Question 4: The GCCF estimates that the stigma associated with the oil spill will be fully dissipated within two years. Is this assumption reasonable?**

### *Stigma and Lodging Demand*

In the context of estimating lodging demand recovery periods following a catastrophic event, stigma means psychological and emotional barriers to travel in the affected area. After the September 11, 2001 terrorist events, stigma was linked to fear of physical harm at worst and inconvenience (i.e., being stranded in airports for extended periods) at best. Following an oil spill, leisure tourists and, to a certain degree business travelers, fear the loss of enjoyment that would have been experienced had the oil spill not occurred. The loss of enjoyment may not be real, but instead perceived by travelers.

An obvious example of lost enjoyment is the possibility of residual oil on beaches limiting beach usage. We have been told that rough surf in the Gulf area continues to dredge up oil balls on the beach. We also have heard stories about beach users following the spill returning to their hotel rooms with the bottoms of their feet stained with oil that becomes tracked on hotel carpets and transferred to hotel towels. Industry pundit Peter Yesawich of the Y Partnership often states in travel industry presentations "Vacations are an American birthright." Households will take their vacations and business will hold their meetings in places where opportunities exist for after work enjoyment. Viable substitutes to the affected Gulf area are available to provide the same level of enjoyment as in this report.

**Question 5: Are there other factors that should be considered?**

*What about Property Value Loss?*

A substantial literature has accumulated on the stigma of environmental events as it relates to property values. The classic paper is by Bill Mundy, "Stigma and Value" *Appraisal Journal* (January 1992), pp 7-13. Some of these papers report a continuing discount the value due to stigma five years following the event which can be construed as impairment. None of the supporting documents from GCCF address the issue of property value impairment. Some business owners in the Gulf area may suffer temporary income losses and permanent property value losses because of an event sponsored by another business.