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A L E R T

IS YOUR LANDFILL OR OTHER WASTING ASSET FAIRLY  
ASSESSED?

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Some assets, such as houses, art and collectibles, and investments appreciate in value over time; others, such as landfills, are considered “wasting assets,” as they have a finite life and little or no capital value at the end of that life. In fact, a landfill is more of a liability than an asset at the end of its useful life due to the 30-year post-closure monitoring requirements applicable under environmental laws. As an investment, a landfill is high risk due in part to the potential for extreme environmental liabilities. Conventional appraisal methods including cost, comparable sales, and even the traditional income method, do not account fully for these unique factors.

These circumstances led the International Association of Assessing Officers (IAAO) to promulgate the Market Rent/Royalty to Real Property Method for valuing landfill real estate. See IAAO, *Sanitary Landfill Valuation: The “Royalty” Method*. Importantly, Pennsylvania courts have recognized the validity of the Market Rent/Royalty Approach for valuing landfill real estate. See *White Pines Corp. v. Columbia County Board of Assessment Appeals*, No. 1714 C.D. 2001 (Pa. Commw. Ct June 7, 2002); *In re Chambers Development Company Co. v. Board of Property Assessment, Appeals and Review*, No. 97-12249 (C.P. Allegheny Mar. 8, 2001).

The Market Rent/Royalty Approach is not just applicable to landfills, but can also be used to

value other similar wasting assets (i.e., mines, quarries, sell-out properties such as residential subdivisions, masterplanned communities, etc.).

**The Market Rent/Royalty Approach**

The Market Rent/Royalty Approach is based on the premise that there is a relationship between the value of real estate and the amount of income it is capable of producing (i.e., rent or net cash flow). In essence, the Market Rent/Royalty Approach involves the discounting of an anticipated income stream attributable to the landfill real estate to a present value estimate.

Use of the Market Rent/Royalty Approach requires a determination of the remaining capacity of the landfill, the annual tons of waste anticipated to be received at the landfill, the net tipping fee (gross tipping fee less any amounts for host fees, taxes, and surcharges), and the market rent or royalty (involves a survey of the lease rates for comparable landfills).

Once these values are determined, the total anticipated tons of waste to be received over the remaining useful life of the landfill is multiplied by the net tipping fee to obtain the tipping fee revenue. The tipping fee revenue is then multiplied by the market rent or royalty rate selected to determine the gross rental income attributable to the real estate. Miscellaneous income such as income from the sale of methane gas generated at

the landfill is also added. Any reversionary value of the landfill property is added to this amount (as mentioned, usually zero). From this total, certain lease-related administrative expenses are deducted to arrive at the net royalty or rental income attributable to the landfill real estate.

The next and most critical step in the Market Rent/Royalty Approach is the derivation of the discount rate.

The process of obtaining the present value of the periodic annual income and the reversion, if any, is known as discounting. The required rate of yield is the discount rate. The discounting process presumes an adequate rate of return on the investment, as well as a return of the entire invested capital. However, as noted, in the case of a landfill, which is a "wasting asset," there is no reversionary value and in fact there is a liability. Therefore, the discount rate must be high enough to provide both a return of capital and return on capital.

The primary means of determining a discount rate is through market transactions. However, for the same reasons that the comparative sales approach cannot be used (i.e., lack of arm's-length transactions and focus on going concern value), market transactions cannot be used to establish the discount rate.

The risks to which these types of properties are subject can be significant. Real estate is a less liquid form of investment than other forms of investment. In short, establishment of a proper discount rate requires an evaluation of a number of risk factors and their relationship to the subject property.

Analyzing discount rates applicable to other types of properties and their risks relative to landfill ownership is a secondary method of determining the discount rate for landfill real estate. As noted, landfills are subject to unique factors that increase their risks relative to the ownership of other properties. These risks are changes in operating rules and requirements, including closure and post-closure care requirements; technological

advancements that may make landfilling obsolete or less desirable; competition from new landfills; and physical reduction in the amount of waste generated.

One significant risk of owning a landfill is that municipal waste landfills are subject to extensive environmental regulation. While such landfills may not knowingly accept hazardous waste, should they do so, or otherwise fail to comply with these laws, the operating permit might be revoked or the renewal of the permit denied, transforming what was a valuable asset into a huge liability.

In sum, because of their finite life, their negative capital value or liability status at the end of that life, and the high risks of ownership, including the risk of extreme environmental liabilities, the use of a medium-to-high discount rate is typically justified under the Market Rent/Royalty Approach. Discounting the anticipated income stream associated with landfill real estate in such a manner results in fairer and more appropriate real estate valuation.

The Market Rent/Royalty Approach is not only applicable to landfills but may also be applicable to other wasting assets or sell-out properties, such as mines, quarries, timeshare properties and masterplanned communities. As with landfills, the risk of ownership of such properties is generally higher than the risk of ownership of more conventional investments, and these properties usually have no capital value at the end of their useful lives. As is the case with the application of the Market Rent/Royalty Approach to landfill real estate, these two factors (investment risk and no or negative capital value) would support the use of a higher discount rate to obtain a net present value estimate for these other wasting assets that is more reflective of the fair value of such properties. ♦

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