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Examining invisible urban pollution and its effect on real estate value in New York City - by William Gati

September 19, 2017 - Spotlights



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In 1966 New York City a toxic three-day smog descended Thanksgiving weekend, blanketing the city with smoke, haze, carbon monoxide and sulfur dioxide. Those three days became a catalyst in the effort to address urban pollution.

Present-day New York City faces environmental challenges as great, or greater, than those of 1966—and many of them are invisible pollutants that threaten humans, animals and the environment.

Invisible pollutants and the threats they pose

Noise pollution: There is a noise complaint in New York City every four minutes. Workplace and environmental noise cause hearing loss, heart disease and suppression of the immune system.

Light pollution: Excessive artificial lighting degrades natural light. Light pollution increases fatigue, headaches, anxiety and stress. It disrupts birds' migratory patterns and life cycles of plants.

EMF: Electromagnetic fields, radio waves and the radiation of wireless technology are real. Scientists know EMF produce harmful effects even at lower levels emitted by appliances and electronic devices.

Air pollution continues to be a problem. The “environmental load” borne by poorer neighborhoods is extreme, but the entire city suffers from air pollution.

Congestion (both human and traffic density), while hardly invisible, contributes to gridlock, road rage and long commutes.

NYC and the NYC Zoning and Building Code

Ironically, New York City's high population density actually mitigates toxicity. A dense population encourages public transportation, and that has kept New York outside the worst 20 cities in pollution studies. City codes that limit and control traffic have also had an impact.

Yet the city faces challenges. New York State tolerates a higher threshold level for many kinds of contamination than New Jersey and California.

No single lighting code exists in New York City. Light pollution is addressed by a series of state and city agencies and departments.

The city codes do address noise pollution. Midtown Manhattan is demonstrably the noisiest area of the city. By contrast, the quietest neighborhoods (such as the Bronx's Co-op City) are quiet by design. A new noise code adopted in 2007 aims to balance peace and quiet with a city that “never sleeps.”

The city's building codes mandate energy efficiency. These cover energy use in new construction, require retrofitting, and address energy reduction targets.

Effect on Real Estate Values

Invisible urban pollution takes its toll on real estate values. The industry term for this is environmental disamenities. Invisible urban pollution results in very visible reactions from buyers, residential and commercial.

Energy efficiency results in increased home value. Buyers look for homes with "green" features, such as low VOCs and solar power. The city's green building tax credit encourages building green.

Real estate close to railways or factories often show a decrease of 5-7% in market value, while properties close to light rail or green space increase in value. A neighborhood's perceived air pollution can drive down prices, but demonstrating a mere 1% increase in air quality can increase a property's value by up to 10%.

Neighborhoods that make efforts to use outdoor light more effectively report real-time benefits. But people in the neighborhood also report benefits when they sell their property—prospective buyers place value on the neighborhood's efforts. Reduced light pollution is a positive factor for real estate.

Bad sound is "as detrimental to quality of life as bad streetlights or poor sidewalks," according to one urban expert. Noise abatement has been shown to increase property value. Changes as simple as "green roofs" (roofs constructed of materials that can grow plants) soften the urban environment. Efforts to reduce noise pollution ranging from quieting the sources of the noise, to fortifying homes and office buildings against noise, quiet a neighborhood—and increase value.

Understanding EMF values of business and residential locations is relatively new for the real estate industry. Cell phone towers bring extra tax revenue and better reception to a section of the city, but many are skeptical because of potential health risks and the impact on property values. Increasing numbers of people don't want to live near cell towers. In some areas with new towers, property values have decreased by up to 20%.

Burying electrical power lines, redoing existing household wiring and installing radiant barriers in walls can mitigate EMF concerns. Simply being conversant with EMF issues matters, too. Many clients consider such knowledge by the real estate industry a measure of competence, and that builds confidence.

The real estate industry's increased attention to invisible urban pollution can make important changes in residential and commercial environments. Real estate "disamenities" attributable to urban pollution are tangible. With concerted effort, these issues can be tackled. The enhanced quality of both property and life could be dramatic.

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