Sustainable School Siting

Children are more susceptible than adults to environmental contaminants and are thus vulnerable to downstream health effects.

Air pollution and soil, water, and interior contaminants cause an increased incidence of: asthma, worsened lung development, decreased cognition, increased cardiovascular stress, increased frequency of school absences, and lower academic performance.

Ensuring schools are built to minimize exposure to pollutants is necessary for children's health.

School Siting

The process of ensuring that new schools are built in areas removed from air, soil, and water contamination. Includes minimizing childhood exposure to toxins such as: lead, asbestos, heavy metals, pesticides, vapor, and radon.

EPA Guidelines

Intended to provide local school districts and community members with the information to make the best possible school siting decisions. The guidelines take into consideration the special vulnerabilities of children's health. The EPA believes the guidelines outline best practice to inform decisions about where children spend most of their time.

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Air Pollution
Ozone, Particulate Matter, Nitrogen Oxides, Sulfur Dioxide, Lead

Emitted from nearby sources such as: industry, businesses, dry cleaners, agriculture

Chronic exposure leads to respiratory symptoms heart
or lung disease, and premature death

Asbestos
Mineral fiber used in many building materials such as insulators and fire retardants.

May be found in interior/exterior piping, HVAC units, boilers, wires, flooring etc.

Asbestos fibers are easily inhaled and can cause lung disease or increase the risk of lung cancer.

Lead
Found in paint and pipes of old buildings, in soil on a previous building site.

Low Exposure: Anemia
High Exposure: Kidney Damage, Brain Damage, Death

Radon
Enters a building through open ground or from contact with floor and walls. Well water can also contain radon which contributes to indoor levels.

Exposure to radon can lead to lung cancer.

Traffic Pollution
Carbon Monoxide, Carbon Dioxide, Nitrous Oxide, Volatile Compounds, Particulate Matter

Exposure Zone: 50-100m of traffic

Increase incidence of asthma, decrease lung development, increase anxiety, increase cardiovascular stress, and decrease cognition.

Vapor Intrusion
Volatile Organic Compounds (gasoline, degreasing solvents)

VOC's found in soil and water. Vapor intrusion is the result of the upward migration of VOC's into a building or open-air space.

Child athletes are particularly vulnerable.

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How Mothers & Others For Clean Air Is Poised To Take Action

Mothers & Others is well positioned to address this issue by raising continued community awareness. In collaboration with Georgia Conservancy and the U.S. Green Building Council - GA Chapter, we developed a training curriculum for educational leaders on school siting best practices based upon EPA's new guidelines.

School siting is critical to ensure children's exposure to toxic contaminants is minimized. Schools should be located far from major traffic ways and away from areas of industry. Additionally, building sites need to be tested for lead, asbestos and VOCs. The contamination problem is not limited to the toxins mentioned above. Other compounds such as Petroleum Hydrocarbons (found in soil), Polychlorinated biphenyls (found in window caulking and soil), and mold all contribute to school air quality.

Did You Know?

Over 6.4 million children attend school within 250 meters (0.16 miles) of a major roadway, and nearly one in five schools that opened in the 2014-2015 school year were built near a busy road.

Children who attend school within 0.4 miles of a major roadway have lower test scores, and a higher likelihood of school absences and behavioral infractions.

Upon a cursory review of EPA's Environmental Justice Screen, there are 47 schools in the Atlanta perimeter which are less than 0.5 miles from an interstate.