AIR QUALITY
(2012)

Policy Statement
The American Society of Landscape Architects (ASLA) believes that good air quality is essential to the public health, safety, and welfare as well as important for the use, quality, and vitality of the environment. ASLA supports policies and regulations that will enhance air quality such as multi-modal transportation facilities and measures to reduce fugitive dust, greenhouse gas emissions, and volatile organic compounds. ASLA believes that communities also have the opportunity and responsibility to improve air quality on the local scale through best practices of planning, design, and construction.

Rationale
Air quality is a local, regional, national, and global issue. Smog, hazardous air pollutants, and particulate generation are local and regional issues. While many impacts to air quality are from transportation, energy generation, industrial applications, and surface disturbance, there are several methods and practices that can be implemented to reduce emissions and/or improve air quality. Site emissions are generated by carbon-based energy generation and use of materials with volatile organic compounds, as well as particulate generations caused by wind erosion and lack of sediment control. Climate change and greenhouse gas emissions are global issues that are influenced by cumulative emissions and ozone generation.

Elevated levels of carbon monoxide, ozone, lead, volatile organic compounds, and particulate matter affect air quality and public health. Adverse air quality conditions can affect human health by aggravating existing respiratory conditions such as asthma, allergies, and emphysema, especially for the very young, elderly, and those with compromised respiratory systems. “Red Alert” type days confine schoolchildren indoors and reduce opportunities to play and recreate for other age groups. Reduced visibility due to particulate matter or elevated levels of ozone adversely impacts the visual quality of rural and scenic landscape areas. Impaired visibility may contribute to vehicular accidents by reducing safe stopping or maneuvering distances.

While the EPA and state environmental agencies regulate large emitters, such as power plants and industrial facilities, cumulative emissions from transportation sources such as vehicles, and use of inefficient motors, are moderately regulated and impact air quality. Best Management Practices (BMPs) exist for National Environmental Policy Act (NEPA) mitigation measures for construction and facility operation and are applied based on the intensity, duration and area of the project. Air quality is monitored as a part of the mitigation measures.

Communities have the opportunity to reduce adverse impacts to air quality on the local scale through the planning, design, construction, and management of projects by the:

- Selection of appropriate materials to reduce volatile organic compounds;
- Use of efficient construction and management practices that reduce particulate matter, carbon dioxide (CO_2), and carbon monoxide (CO);
- Inclusion of design elements such as green roofs, planting areas with shrub and tree masses to capture particulate matter;
- Preservation of existing vegetation to reduce particulate matter, and absorb other gasses;

- Use of materials or practices that generate minimal or no particulates, ozone, nitrogen oxides (NO_x), or sulfur oxides (SO_x);
- Use of ultra-low sulfur fuels or natural gas for construction equipment;
- Reduction of fugitive dust through BMPs, including such practices as minimizing disturbed areas, spraying open areas with water or use of dust-suppression compounds, establishing vegetation to stabilize areas, sweeping paved roads, or using bag houses;
- Reduction of vehicle emissions through emphasizing use of transit, connection to transit networks, bike lanes and bicycle facilities, and pedestrian networks; and
- Reduction of emissions from fossil fuel energy generation, including the use of renewable energy, throughout the life of a project.