

Air quality is the responsibility of every citizen, and is affected by individual lifestyle decisions. County actions and policies can have a positive impact on air quality, such as protection of forests and wooded areas, promotion of efficient land use configurations, ride-sharing, public transit, bicycle and pedestrian facilities, and preserving energy efficiency in County buildings and projects.

The Department of Environmental Quality (DEQ) is responsible for administering the Federal Clean Air Act of 1970 and subsequent enactments by the Virginia General Assembly. The DEQ monitors for six criteria pollutants set by the Environmental Protection Agency: total suspended particulates, carbon monoxide, sulfur dioxide, nitrogen oxides, ozone, and lead. The DEQ enforces federal standards for eight hazardous air pollutants through a review process for new and modified sources. The DEQ also regulates offensive odors and open burning. In the Charlottesville area, only particulates are monitored at a PM 10 station (particulate matter 10 microns) located on top of City Hall. In 1997, the annual arithmetic mean was 21 micrograms per cubic meter, well below the standard of 50 micrograms per cubic meter. Ozone standards are probably exceeded at certain times of the year, according to a DEQ representative, but monitoring equipment is not available in this area. Both a particulate monitor PM 2.5 and an ozone monitor could be useful to the area.

Other environmental problems associated with air quality are acid rain, impaired visibility of scenic resources, and radon gas. Acid rain is caused by sulfur dioxide and nitrogen oxides which are converted in the atmosphere into sulfuric or nitric acid. It is probable that distant sources of sulfur dioxide - including coal-fired power plants in the Midwest - are responsible for the acid rain problem in Virginia. Adverse effects include decline of lakes and aquatic life, reduced yields and growth of crops and forests, and deterioration of buildings and statues.

The Clean Air Act requires protection for visibility in areas designated as "Class I" by Congress. The Shenandoah National Park is one of two such areas in the state.

Radon is a radioactive gas produced by the decay of uranium and radium in the ground. The Environmental Protection Agency has recommended that homeowners should take steps to reduce the level of radon in their homes if it exceeds four picocuries per liter. The State Health Department can provide information on radon and approved radon testing firms.

The County does not enforce air quality regulations. Public inquiries and requests for permits In Albemarle County should be directed to the Department of Environmental Quality's Regional Office in Fredericksburg. Virtually all industrial development or expansion, and most large commercial and residential construction require a permit. Early contact with the DEQ will clarify specific requirements.

Strategy: To protect air quality, promote alternatives to single-occupancy vehicles, such as pedestrian sidewalks, bicycle use, ride-sharing, and public transit services. See page 174, Land Use Plan.

Strategy: Monitor federal and state laws and the activities of agencies that affect air quality in this locality.

Strategy: Join with other agencies to obtain an air quality monitoring device for the area.