



Air Quality Forecasting Procedure

The Mid-Ohio Regional Planning Commission (MORPC) is the agency responsible for administering central Ohio's year-round daily air quality forecasting program. MORPC has partnered with [Sonoma Technology, Inc. \(STI\)](#) for the past ten years to serve as air quality forecasters for the region. The goal of the program is to provide daily air pollution information and alert the public if air pollution is expected to reach levels that are considered to be Unhealthy for Sensitive Groups. Armed with this information, central Ohioans can reduce their exposure to poor air quality and take action to reduce air pollution.

Each morning, STI retrieves and reviews current weather data from the National Weather Service and air quality data from the Ohio Environmental Protection Agency's eight near real-time monitors. To develop a daily air quality forecast, STI utilizes the current air quality information and output from several weather and air quality models to project air quality conditions in central Ohio over the next five days. The forecast is submitted to the United States Environmental Protection Agency's [AIRNow](#) system, which offers air pollution information for over 400 cities across the United States. Air Quality conditions may change the next day due to rapidly changing weather conditions or local pollution sources, but MORPC strives to offer the most accurate forecast to protect public health. STI reviews their accuracy monthly and uses each episode to refine their forecast approach.

MORPC uses the [Air Quality Index \(AQI\)](#) to report daily air quality. It tells people how clean or polluted their outdoor air is, and what associated health effects might be a concern. The AQI focuses on health effects people may experience within a few hours or days after breathing polluted air.

Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0-50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51-100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101-150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151-200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201-300	Health alert: everyone may experience more serious health effects.
Hazardous	> 300	Health warnings of emergency conditions. The entire population is more likely to be affected.

If predicted weather and air quality conditions indicate that ozone or particle pollution may exceed [National Ambient Air Quality Standards](#), an Air Quality Alert is issued. An Air Quality Alert is issued by MORPC by 3 p.m. the day before high ozone and/or high particle pollution levels are anticipated. In rare circumstances an Air Quality Alert may be issued the same day air pollution levels are expected to exceed the standards.

If an Air Quality Alert is issued, an email will go out to nearly 2,000 [EnviroFlash](#) subscribers, a press release is sent to the local media, MORPC's toll free hotline (1-888-666-1009) is updated, and information is posted to the MORPC website, Facebook and Twitter pages. Thanks to the great partnership with the local TV stations, the meteorologists incorporate information about the Air Quality Alert into their weather report; and thanks to another great partnership with the Ohio Department of Transportation; Air Quality Alert information is posted to their dynamic message signs over the highways.