



## Air Quality Improvements

With respect to ozone, particulate matter and sulfur dioxide, air quality in Ohio continues to improve, even as the population and economy grows. Pollutant concentrations shown here are compared to the National Ambient Air Quality Standards (NAAQS) based on the design value which is established for each individual standard. The current standards are shown to provide context; the standards have been revised and strengthened over time.

### Ozone

The average ozone design value has decreased by 25 percent since 1996, driven by a 66 percent decrease in ozone precursor emissions of nitrogen oxides (NO<sub>x</sub>) and volatile organic chemicals (VOC). Today's highest design value is now lower than the lowest design value in 1996.

### Fine Particulate Matter (PM<sub>2.5</sub>)

Two separate design values are established for PM<sub>2.5</sub>: annual and 24-hour. Since 2001, the average annual PM<sub>2.5</sub> design value has decreased by 48 percent and the 24-hour PM<sub>2.5</sub> design value has decreased by 51 percent. PM<sub>2.5</sub> precursor emissions — direct PM<sub>2.5</sub>, nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) — have decreased by 73 percent since 2001.

### Sulfur Dioxide (SO<sub>2</sub>)

The average SO<sub>2</sub> design value has decreased by 76 percent since 1996, due to a 91 percent decrease in emissions. Most of these emissions reductions are from electric generating units, such as coal-fired power plants, which have shut down, installed emissions controls or switched to cleaner fuels.