

Air Quality Explorer -Web-based Tool to Identify and Investigate Pollutant Emissions, Ambient and Estimated Concentrations, and Risk

Richard Mason and Joe Touma

Atmospheric Science Modeling Division, Air Resources Laboratory, National Oceanic and Atmospheric Administration, Research Triangle Park, NC (On Assignment to the Office of Air Quality Planning and Standards, Environmental Protection Agency), Research Triangle Park, NC 27711

Email: mason.richard@epa.gov, fax: (919) 541-0684

Madeleine Strum, Anne Pope, Laurel Driver, and Tom Driscoll

Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711

The EPA has conducted the 1999 National Air Toxics Assessment (NATA) to identify the air toxics that are of the greatest potential contribution to population risk. The NATA consists of compiling a national air toxics inventory, estimating ambient concentrations and comparing to available air toxics monitoring data, and then estimating population exposures and the associated public health risks due to inhalation of air toxics. Results from the 1999 NATA study are now under review and will become available to the public via the web; however, the current NATA website displays only one level of information on each map at a census tract level. In addition, there is a very limited amount of visual data available, making explanations of estimated risks and concentrations a time-consuming endeavor. Therefore, we have developed a beta version of an enhanced interactive website with a data query tool that enables a better understanding of publicly-available air pollutant data. While this website currently only supports air toxics from the 1999 NATA, a final version will also allow limited comparisons with criteria air pollutant data. With this website, users can query and display multiple layers of information by zip code, or state and county names. Source sector and pollutant results are readily available in familiar pie charts and tabular formats, making initial queries into the NATA data seamless. The purpose of this application is to highlight many of the improvements we are making over the existing 1999 NATA website. This tool can demonstrate how census tract risks are explained by modeled concentrations, which in turn are linked to individual emission source categories. This tool also shows some of the summary data information already available to communities, and how this “one stop shop” can help communities to identify and prioritize risks in their area.