I. AIR QUALITY

Federal and New York State Ambient Air Quality Standards (AAQS) have been developed to protect the general population, the environment and conserve natural resources. The NYSDEC Bureau of Air Quality Surveillance monitors a number of pollutants through a statewide network which includes both state operated and private (utilities) stations. Pollutants that are monitored include: nitrogen dioxide, inhalable particulates, total suspended particulates, sulfur dioxide, carbon monoxide, and photochemical oxidants (ozone).

The closest monitoring station to the Study Area which measures carbon monoxide is located in Schenectady. For the period of 1979-1988 the annual average AAQS of 9 parts per million (PPM) has never been exceeded. The Annual 1988 New York State Report, Ambient Air Monitoring System states that the long-term annual carbon monoxide levels have remained stable for the past few years and short-term concentrations have declined at some stations. The report also states that this trend reflects the influence of carbon monoxide emission controls now used on motor vehicles.

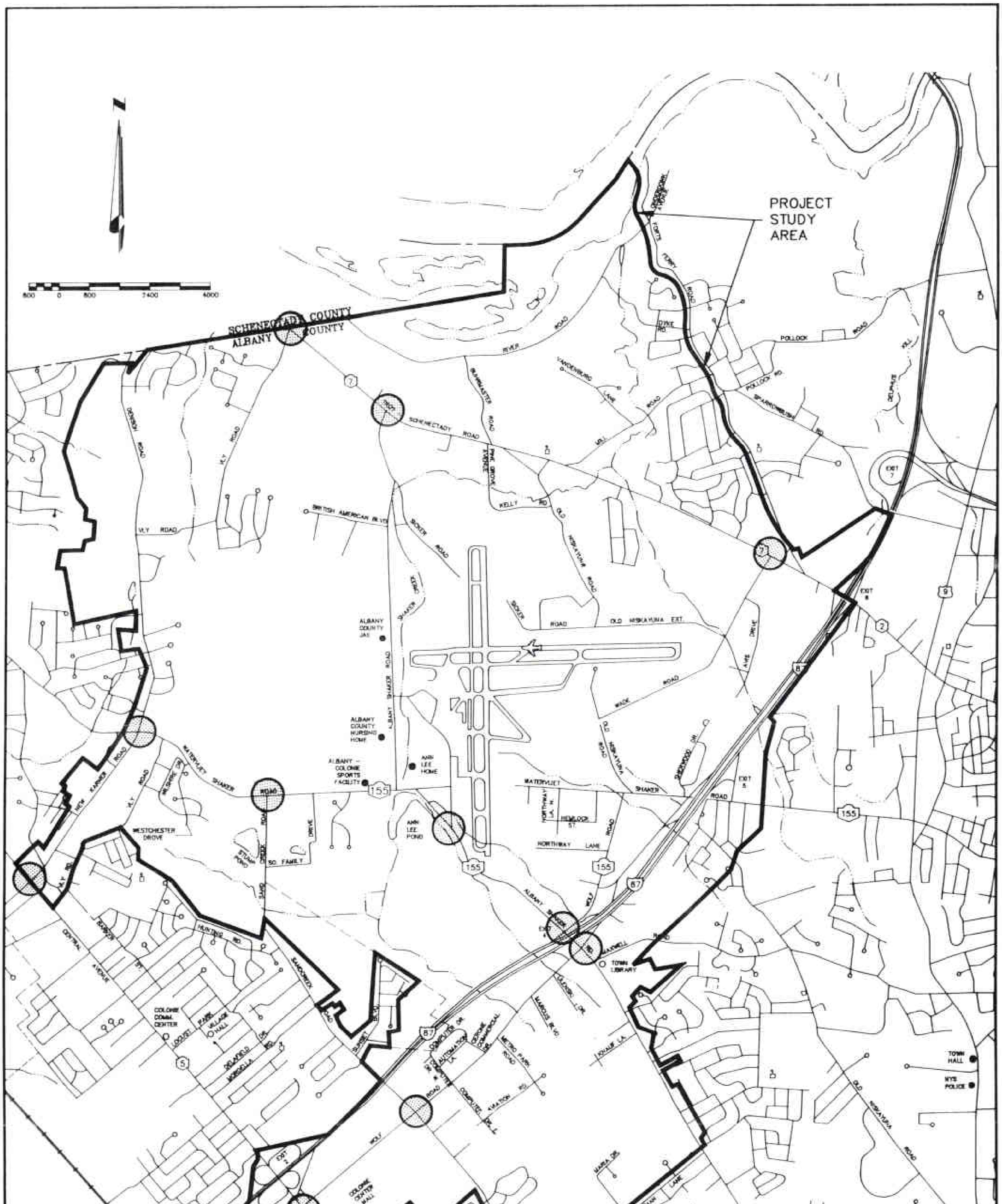
Impacts and Mitigation Measures:

The type and intensity of development projected in this FGEIS will generally not result in a degradation of air quality. Potential development, as described in Section II,B, Land Use and Zoning, includes residential, office, retail, light industrial, and manufacturing uses. The light industrial and manufacturing land uses are restricted by zoning to uses which generally do not emit significant quantities of pollutants to the atmosphere. Although these uses themselves may not affect air quality, the increased vehicle traffic from overall development may result in a decrease in air quality.

Aside from vehicle emissions, commercial, military, and private air traffic can have an impact on air quality. However, in comparison to vehicle emissions, aircraft-generated levels are generally much lower. The Albany County Airport Master Plan Final Report 1975-1995, indicated that airports do not generally contribute a great deal to air pollution unless flight operations are nearly continuous. Dispersion of contaminants is rapid because of the generally windy conditions and absence of barriers formed by buildings or terrain in the vicinity of airports. The Albany County Airport, which experienced 180,766 aircraft operations in 1988, does not have continuous flight operations. In the year 2005, the Airport is projected to handle a total of 265,835 operations, but will still not experience continuous flight operations. Therefore, air quality in the Study Area will not be affected by aircraft which operate from the Airport.

Projecting future air quality based on increased vehicular traffic is a complicated task which requires the use of a computer model which has been developed by the Federal Highway Administration (FHWA). Unfortunately, generally accepted computer models have not been developed to estimate future air quality beyond projected carbon monoxide levels. For this reason, the evaluation of air quality has focused on a discussion of carbon monoxide pollution.

In order to evaluate potential impacts of increased traffic volumes on carbon monoxide levels, The Carbon Monoxide Hot Spot Verification Model developed by the FHWA was used. This model is based on Federal Environmental Protection Agency (EPA) standards and is outlined in the NYSDOT Air Quality Analysis Procedures - PEG #42. Eleven intersections which are expected to experience large traffic volume increases through the year 2005 were chosen for evaluation. Generally, signalized intersection sites experience higher carbon monoxide



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AIR ANALYSIS INTERSECTIONS

EXHIBIT NO. II - I - I

AIRPORT AREA GENERIC ENVIRONMENTAL IMPACT STATEMENT

concentrations than free-flow sites and as such represent a worst case scenario. The intersections evaluated are listed below and their locations are shown on Exhibit II-I-1:

- NY 7/Vly Road and Rosedale Road;
- Albany Shaker Road/Old Wolf Road;
- NY 7/Albany Shaker Road;
- Albany Shaker Road/Wolf Road;
- NY 7/Wade Road;
- Wolf Road/Sand Creek Road;
- Watervliet Shaker Road/Sand Creek Road;
- Watervliet Shaker Road/New Karner Road/Vly Road;
- Albany Shaker Road/South Airport Access Road;
- New Karner Road/Central Avenue; and
- Wolf Road/Central Avenue.

The Carbon Monoxide Hot Spot Verification Model provides an estimate of carbon monoxide levels which are produced by gasoline and diesel vehicle emissions. Based on information provided by the EPA and FHWA, it has been determined that carbon monoxide from vehicles is the only pollutant that can be accurately measured or predicted and is also considered the most serious pollutant from vehicles. This model consists up to three levels of analysis depending on the predicted level of carbon monoxide at a given site. The predicted concentration of carbon monoxide levels at the above noted intersections is limited to a Level 1 analysis in this FGEIS. The intent of a Level 1 analysis is to assess the magnitude of an intersection's impact on air quality using a simplified screening technique. This analysis assumes a conservative worst case condition. An intersection which exceeds the Level 1 threshold of 14 parts per million (ppm) may not necessarily be in contravention of the EPA air quality standard for carbon monoxide. However, in such a case, the more sophisticated Level 2 analysis and possibly the Level 3 analysis, which incorporate more sophisticated computer modeling, should be performed.

A Level 1 analysis was completed for each intersection. The predicted carbon monoxide levels for the year 2005 at each intersection are listed in Table II-I-1 below.

TABLE II-I-1

PREDICTED CARBON MONOXIDE LEVELS
YEAR 2005

INTERSECTION	CARBON MONOXIDE LEVEL (PPM)
NY 7/VLY ROAD/ROSEDALE ROAD	19.3*
ALBANY SHAKER ROAD/OLD WOLF ROAD	13.5
NY 7/ALBANY SHAKER ROAD	23.4*
ALBANY SHAKER ROAD/WOLF ROAD	15.9*
NY 7/WADE ROAD	15.6*
WOLF ROAD/SAND CREEK ROAD	8.1
WATERVLIET SHAKER ROAD/SAND CREEK ROAD	10.5
WATERVLIET SHAKER ROAD/NEW KARNER ROAD/VLY ROAD	10.3
ALBANY SHAKER ROAD/SOUTH AIRPORT ACCESS ROAD	13.6
NEW KARNER ROAD/CENTRAL AVENUE	15.7*
WOLF ROAD/CENTRAL AVENUE	24.1*

* Level 1 threshold of 14 ppm is exceeded

Six of the 11 intersections shown above have been identified as potential "hot spots" based on the critical analysis year of 2005. Several courses of action should be considered at these intersections to evaluate more fully the potential impacts of carbon monoxide pollution.

If the roadway improvements recommended to alleviate traffic impacts (see Section II, H) under the Cumulative Growth Scenario are implemented, a more detailed environmental review will be necessary to evaluate site specific impacts. When improvements are scheduled for the above six intersections which have been identified as potential "hot spots," more detailed Level 2, and if necessary, Level 3 analysis, should be conducted. If these additional analyses reveal that carbon monoxide concentrations will exceed EPA standards, then specific mitigation measures will be required.

One method to reduce carbon monoxide concentrations at problem intersections is to re-evaluate the signalization, if any, at these intersections. The length of time a vehicle queues or waits at an intersection has an influence on the level of emissions measured at nearby receptors. Timing of traffic signals, or the addition of signalization or other traffic control devices may reduce emission levels.

Road improvements, which should result in more efficient traffic movements should also aid in the reduction of carbon monoxide emissions. Efficient traffic movements will reduce queue lengths and thus emission levels at a given receptor.

Section II, H, Transportation discusses a variety of Transportation Systems Management techniques to reduce traffic levels. These techniques include ride sharing programs, variable work hours, and transit programs. A reduction in the number of vehicles will have the two-fold positive impact of reducing traffic congestion and carbon monoxide emissions.

Decreasing traffic volumes is another mitigation measure which may be employed to aid in the reduction of carbon monoxide emissions. To lower traffic volumes it will be necessary to reduce the level of development which is projected under the Cumulative Growth Scenario. If this mitigation measure is considered, it will be necessary to evaluate both the location of proposed development and the volume and trip distribution of traffic generated to determine the impacts on a specific intersection.