

K. Air Quality

This chapter addresses the Proposed Project's impact on air quality, both during construction and upon completion of the project. Air quality impacts can be classified as either direct or indirect. Direct air quality impacts result from emissions generated by stationary sources at a project or potential development site such as emissions from fuel burned at a site for heating and air conditioning systems. Indirect air quality impacts result from emissions from offsite stationary sources and mobile sources generated by the project.

1. Existing Conditions

Ambient Air Quality Standards

The U.S. Environmental Protection Agency (USEPA) has promulgated National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for each of the following six major criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), respirable particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). Individual states are free to adopt standards more stringent than the federal NAAQS. The New York State Department of Environmental Conservation (NYSDEC) has established Ambient Air Quality Standards (AAQS) for New York that are listed in Part 257, *Air Quality Standards*, of the NYSDEC regulations. In some cases, the New York AAQS are more stringent than the NAAQS.

Background Air Quality

The Federal Clean Air Act (CAA) of 1990 requires that each state develop a State Implementation Plan (SIP) to provide the regulatory framework to implement the Act. The New York State SIP adopted the National and New York AAQS listed in Appendix G. Attainment of the AAQS is required under the CAA and each state has a prescribed amount of time in which to bring non-compliant areas into compliance. New York State is divided into nine Air Quality Control Regions (AQCRs) based on geographic location. The NYSDEC operates a network of ambient air quality monitoring stations located throughout the state in each of the AQCRs in order to evaluate the attainment status of each region with respect to the respective AAQS. The hamlet of Orangeburg is located in Rockland County which lies within the NYSDEC AQC Region 3. The pollutants currently monitored in or near this region include sulfur dioxide, respirable particulate matter, carbon monoxide, ozone, nitrogen oxides and lead.

Ambient air quality monitoring data collected by the NYSDEC was reviewed in an effort to characterize the existing air quality at the Project Site. Existing background concentrations of criteria pollutants were determined based on data from monitoring stations nearest the Project Site. Appendix G provides a summary of the measured ambient concentrations that are most representative of the Project area. These data

indicate that existing air quality levels in the vicinity of the Project Site are well below the NAAQS and the New York AAQS. Ambient air quality complies with the New York and Federal AAQS, with the exception of ozone, which is a regional problem through the entire northeastern U.S.

The existing air quality in the vicinity of the Project Site is acceptable for the proposed residential development and poses no known threat to either the health or welfare of the general population. With regard to elevated ozone levels, the NYSDEC has established an air pollution episode monitoring plan to issue health warnings to the general public to caution those prone to health problems to remain indoors and restrain from strenuous activities on days where ozone levels are predicted to be elevated. It should also be noted that high ozone levels are found throughout the northeastern United States and non-attainment of the ozone standard is more of a regional problem than a local problem and cannot be resolved without coordinated regional air pollution programs. The Proposed Project is consistent with all New York State Department of Transportation (NYSDOT) regional transportation programs, and thus, is in conformance with the portions of the SIP designed to bring the region into compliance with the ozone AAQS.

2. Potential Impacts

Short-Term

Construction activities related to the Proposed Project will result in limited short-term air quality impacts. There will be fugitive dust generated during the site preparation and construction phases of the Project. The potential impact from these fugitive dust emissions will be minimized by following the established Rockland County Best Management Practices guidance. Vehicular emissions from construction equipment and construction worker vehicles are anticipated to have very minimal short-term impacts. None of the short-term construction related impacts are expected to cause any violations of the State or Federal AAQS.

Long Term

The only long term air quality impact that may be created by the Proposed Project results from the potential increase in project-related vehicular exhaust emissions. The primary pollutants associated with vehicular exhaust emissions are NO_x and CO.

Therefore, a screening analysis was performed based on the traffic analysis for the Proposed Project (see Appendices F and G). This screening analysis concluded that an air quality analysis is not necessary since the Proposed Project will not increase traffic volumes, reduce source-receptor distances or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards. No long term impacts to air quality are anticipated.

3. Mitigation

Stationary source impacts from the Proposed Project are limited to the natural gas fired boilers used to meet the residences heating and hot-water needs. The air quality impacts from these sources are negligible and will have no perceptible affect on local air quality. The conclusion of the air quality screening analysis of potential long-term traffic impacts on local air quality is that the Project-related traffic will not adversely affect long term air quality and will not jeopardize attainment of the AAQS. As a result, no mitigation measures are necessary in addressing long-term air quality impacts from the Proposed Project.

Short-term air quality impacts associated with construction of the Proposed Project will be mitigated by following the Rockland County Best Management Practices guidance and by maintaining all construction equipment in good working condition.