

3.2 Air Quality

This section describes the impacts of the proposed project on local and regional air quality. The section has been prepared using methodologies and assumptions recommended by the Northern Sierra Air Quality Management District (NSAQMD) and the Town. A comment letter was received from the district during the NOP review period. In keeping with these recommendations, the chapter describes existing air quality, construction-related impacts, direct and indirect emissions associated with the proposed project and the impacts of these emissions on both the local and regional scale, and mitigation measures warranted to reduce or eliminate any identified significant impacts.

3.2.1 SETTING

Environmental Setting

AIR POLLUTION CLIMATOLOGY

Truckee has a Mediterranean climate type, with pronounced summer and winter seasonal variation in temperature and precipitation. Most precipitation occurs from late October through early May with winter precipitation falling as snow. Temperatures variation is relatively high on a seasonal as well as daily basis.

Truckee lies within a small air basin defined by mountainous terrain. As with most mountain valleys, the Truckee air basin is subject to frequent temperature inversions. A temperature inversion is created when a stable mass of warmer air lies above a mass of colder air. Temperature inversions severely limit the vertical mixing of pollutants. When combined with mountainous terrain that restricts horizontal movement or dilution of pollutants, inversion conditions can result in very poor ventilation and very high concentrations of pollutants.

Temperature inversions in the Truckee area are created in two ways: radiational cooling and subsidence. Radiation inversions occur on calm, clear nights when the ground cools more rapidly than the air above it. The cooling of the air near the ground creates a ground-based and relatively shallow inversion.

Subsidence inversions result from the compressional heating of layers of the atmosphere by downward motion (subsidence) related to large-scale high pressure areas. This type of inversion tends to be elevated above ground. The strongest inversions conditions in Truckee are a result of the combined effects of both types of inversions.

EXISTING AIR QUALITY – GREENHOUSE GASES AND LINKS TO GLOBAL CLIMATE CHANGE

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which

are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect (Ahrens 2003). Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a). A byproduct of fossil fuel combustion is CO₂. CH₄, a highly potent GHG, results from offgassing associated with agricultural practices and landfills. Processes that absorb and accumulate CO₂, often called CO₂ “sinks,” include uptake by vegetation and dissolution into the ocean.

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO₂ in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (California Energy Commission 2006a). Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, CH₄ is a much more potent GHG than CO₂. As described in Appendix B, “Calculation Referenced,” of the General Reporting Protocol of the California Climate Action Registry (2006), one ton of CH₄ has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted. Consumption of fossil fuels in the transportation sector was the single largest source of California’s GHG emissions in 2004, accounting for 40.7% of total GHG emissions in the state (California Energy Commission 2006a). This category was followed by the electric power sector (including both in-state and out-of-state sources) (22.2%) and the industrial sector (20.5%) (California Energy Commission 2006a).

Feedback Mechanisms and Uncertainty

Many complex mechanisms interact within Earth’s energy budget to establish the global average temperature. For example, a change in ocean temperature would be expected to lead to changes in the circulation of ocean currents, which, in turn would further alter ocean temperatures. There is uncertainty about how some factors could affect global climate change because they have the potential to both enhance and neutralize future climate warming. Examples of these conditions are also described below.

Direct and Indirect Effects of Aerosols. Aerosols, including particulate matter, reflect sunlight back to space. As particulate matter attainment designations are met, and fewer emissions of particulate matter occur, the cooling effect of anthropogenic aerosols would be reduced, and the greenhouse effect would be further enhanced. Similarly, aerosols act as cloud condensation nuclei, aiding in cloud formation and increasing cloud lifetime. Clouds can efficiently reflect solar radiation back to space (see discussion of the cloud effect below). As particulate matter emissions are reduced, the indirect positive effect of aerosols on clouds would be reduced, potentially further amplifying the greenhouse effect.

The Cloud Effect. As global temperature rises, the ability of the air to hold moisture increases, facilitating cloud formation. If an increase in cloud cover occurs at low or middle altitudes, resulting in clouds with greater liquid water content such as stratus or cumulus clouds, more radiation would be reflected back to space, resulting in a negative feedback mechanism, wherein the side effect of more cloud cover resulting from global warming acts to balance further warming. If clouds form at higher altitudes in the form of cirrus clouds, however, these clouds actually allow more solar radiation to pass through than they reflect, and ultimately they act as a GHG themselves. This results in a positive feedback mechanism in which the side effect of global warming acts to enhance the warming process. This feedback mechanism, known as the “cloud effect” contributes to uncertainties associated with projecting future global climate conditions.

Other Feedback Mechanisms. As global temperature continues to rise, CH₄ gas currently trapped in permafrost, would be released into the atmosphere when areas of permafrost thaw. Thawing of permafrost attributable to global warming would be expected to accelerate and enhance global warming trends. Additionally, as the surface area of polar and sea ice continues to diminish, the Earth’s albedo, or reflectivity, is also anticipated to decrease. More incoming solar radiation will likely be absorbed by the Earth rather than being reflected back to space, further enhancing the greenhouse effect. The scientific community is still studying these and other positive and negative feedback mechanisms to better understand their potential effects on global climate change.

There are currently no quantitative criteria or significance thresholds available to analyze the effects of an individual project on global warming. In the case of the Canyon Springs project it is a relatively small project (213 units) in the context of a global issue. In the absence of any quantifiable data, significance criteria, on-going scientific study and debate as well as the relatively small nature of this project it would be speculative to try and ascertain the impacts of the Canyon Springs project on global warming.

Regulatory Setting

The local air quality agency is the NSAQMD. It is comprised of three contiguous, mountainous, rural counties in northeastern California (Nevada, Sierra and Plumas counties). The NSAQMD is part of the Mountain Counties Air Basin. The district enforces controls on stationary sources of air pollutants through its permit and inspection programs and regulates open burning. Through its permitting powers, the district enforces limitations for emission of criteria and toxic

air contaminants. Other district responsibilities include monitoring air quality, preparation of clean air plans and responding to citizen air quality complaints.

REGIONAL AIR QUALITY PLANS

Both the federal and state governments have enacted laws mandating the identification of areas not meeting the ambient air quality standards and development of regional air quality plans to eventually attain the standards. Under the federal Clean Air Act, eastern Nevada County is considered “Unclassified” or “Attainment” for all pollutants. For the state standards, eastern Nevada County is “Non-Attainment” for PM₁₀ and the state ozone standards, and “Attainment” or “Unclassified” for other pollutants.

There are no mandated air quality plan requirements for Truckee under either federal or state law. However, the Town of Truckee and the NSAQMD have developed a particulate matter air quality management plan for Truckee. The Town Council initiated this planning effort to analyze particulate matter pollution and take steps to control particulate matter emissions. The urgency of this issue was related to exceedances of the state and federal standards and the possibility of being designated as a federal non-attainment area and being subject to mandatory sanctions and controls.

Within the air quality management plan the goal of the plan is as follows:

The Town shall achieve and maintain compliance with National Ambient Air Quality Standards for PM₁₀ and PM_{2.5} as established by the United States Environmental Protection Agency. The Town shall strive to achieve compliance with State Ambient air quality standards for PM₁₀ as established by State law and shall make reasonable progress toward achieving State particulate matter standards.

The air quality management plan lists nine objectives. The following seven are related to control strategies:

- Objective 1: New development will mitigate to the maximum extent feasible its particulate matter emissions from solid fuel burning devices and re-entrained road dust.
- Objective 2: Particulate matter emissions from solid fuel burning devices and re-entrained road dust represent the Town’s greatest opportunity to reduce emission levels since emissions savings (i.e., a reduction of emissions below current levels) can only occur with a reduction of emissions from existing sources. Emissions from these sources will be reduced to the extent necessary to meet the attainment goal of this plan. Control strategies in the near-term should focus on these sources, and all feasible control strategies should be used.
- Objective 3: The Town will request and encourage Caltrans to optimize their equipment and operational measures for winter road sanding that will reduce re-entrained road dust emissions below current emissions levels. The Town will optimize its

equipment and operational measures for winter road sanding to reduce re-entrained road dust emissions to the maximum extent feasible.

- Objective 4: Financial incentives, public education, and other non-regulatory strategies will be encouraged when feasible. Control strategies that are cost-effective and reduce financial burden as much as possible will be encouraged. Cost-effective strategies provide higher emission saving at lower financial expenditures to the public sector and private individuals.
- Objective 5: Innovative technologies for heating and building energy conservation practices will be encouraged to reduce reliance on solid fuel burning devices and other heating devices which generate particulate matter emissions.
- Objective 6: The Town Council will coordinate with and encourage the Nevada County and Placer County Board of Supervisors to implement PM control strategies in the Truckee air basin.
- Objective 7: Control strategies for regulated PM will be coordinated with strategies addressing other air pollutants and air quality issues.

The air quality management plan and subsequent ordinances, regulations and programs are a means of achieving the air quality goals and policies of the General Plan.

AMBIENT AIR QUALITY STANDARDS

Both the US Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents.

The federal and California state ambient air quality standards are summarized in Table 3.2-1 for important pollutants. The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter (PM₁₀ and PM_{2.5}).

**Table 3.2-1
Federal and State Ambient Air Quality Standards**

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	--	0.09 PPM
	8-Hour	0.08 PPM	0.07 PPM
Carbon Monoxide	8-Hour	9 PPM	9.0 PPM
	1-Hour	35 PPM	20.0 PPM

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Nitrogen Dioxide	Annual Average	0.05 PPM	--
	1-Hour	--	0.25 PPM
Sulfur Dioxide	Annual Average	0.03 PPM	--
	24-Hour	0.14 PPM	0.05 PPM
	1-Hour	--	0.25 PPM
PM ₁₀ (Respirable Particulate Matter)	Annual Average	50 µg/m ³	20 µg/m ³
	24-Hour	150 µg/m ³	50 µg/m ³
PM _{2.5} (Fine Particulate Matter)	Annual	15 µg/m ³	12 µg/m ³
	24-Hour	65 µg/m ³	--
Lead	30 Days Average	--	1.5 µg/m ³
	Calendar Quarter	1.5 µg/m ³	--
Hydrogen Sulfide	1-hour	--	0.03 PPM
PPM = Parts per Million µg/m ³ = Micrograms per Cubic Meter			

Source: California Air Resources Board, Ambient Air Quality Standards (5/17/06)

<http://www.arb.ca.gov/aqs/aaqs2.pdf>

CURRENT AIR QUALITY

The NSAQMD maintains an ambient air quality monitoring station in Truckee. Ozone, PM₁₀ and PM_{2.5} are currently monitored at the Truckee-Fire Station. In the five year period 2001-2005 no exceedances of the national or state standards for ozone were recorded. The highest 1-hour concentration during this period was 0.091 ppm, and the highest 8-hour average concentration was 0.077 ppm.

PM₁₀ concentrations at Truckee meet the federal ambient air quality standards, but exceedances of the more stringent state standard were recorded several days per year during 2001-2005.

Sampling of PM_{2.5} began in the first quarter of 1999. One exceedance of the federal standards for this pollutant was recorded in 2001, although this was determined to be due to a forest fire and was excluded in determination of compliance with the standard.

3.2.2 THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project is considered to have a significant impact if it will:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard to contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality

standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)

- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

Additionally, the NSAQMD has developed thresholds of significance for projects. Three threshold levels are identified, each level having a corresponding requirement for mitigation:

- a. The Level A thresholds (less than 25 pounds per day for ozone precursors or 80 pounds per day for PM₁₀), requires only standard mitigation measures applicable to all projects.
- b. The Level B Thresholds (greater than 25 pounds per day of ozone precursors or 80 pounds per day for PM₁₀) requires additional mitigation.
- c. The Level C threshold (137 pounds per day for ozone precursors or PM₁₀) requires the use of all feasible and reasonable mitigation strategies. Unmitigated emissions above 137 pounds per day are considered to represent a significant adverse impact.

The Town of Truckee Particulate Matter AQMP also establishes the following additional threshold of significance:

- Project results in a net increase in wood burning or road dust particulate matter emissions after implementation of mitigation. The Town of Truckee Particulate Matter Air Quality Management Plan Objective 1 and Control Strategy 3 establish a significance level of “no net increase” for these sources of particulate matter.

3.2.3 IMPACTS AND MITIGATION MEASURES

Impact #3.2-1: Construction activities such as excavation and grading operations, construction vehicle traffic and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that would affect local and regional air quality in the summer months during the buildout period of the proposed project.

Discussion/Conclusion: The URBEMIS-2002 program was applied to proposed project land uses to estimate the total of construction emissions from site grading, equipment exhaust, construction worker vehicle trips and other construction activities. The URBEMIS-2002 model output along with a discussion of the assumptions made in the use of the model is included in Appendix B. The resulting emissions, in pounds per day, are shown in Table 3.2-2. These emissions are assumed to be seasonal, occurring largely in the summer months and not during the winter.

**Table 3.2-2
Construction Emissions (Pounds Per Day)**

	ROG	NO_x	PM₁₀
Project Emissions	22.9	143.7	134.2
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NSAQMD Level A Thresholds	Less than 25.0	Less than 25.0	Less than 80
NSAQMD Level B Thresholds	25 .0	25.0	80.0
NSAQMD Level C Thresholds	137.0	137.0	137.0

Table 3.2-2 shows summertime peak daily construction emissions. In the absence of emission controls and mitigation measures beyond standard watering for dust control, these emissions would exceed the NSAQMD's Level C significance thresholds for NO_x and PM₁₀. This impact is *potentially significant*.

Mitigation Measures

The following mitigation measures will lower construction phase emissions of PM₁₀, ROG and NO_x to below the NSAQMD level C threshold reducing this impact to a level that is *less than significant*.

Mitigation Measure #3.2-1a:

The project proponent shall include the following dust control mitigation requirements in all construction contracts:

- *All construction activities would be subject to the requirements of the NSAQMD's Regulation 2, Rule 226 regarding dust control.*
- *Alternatives to open burning of vegetative material on the proposed project site shall be used unless deemed infeasible by the Northern Sierra Air Quality Management District. Suitable alternatives are chipping, mulching, or conversion to biomass fuel.*
- *Contractors shall be responsible for ensuring that adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*
- *All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or violation of an ambient air standard. Watering should occur at least twice daily, with complete site coverage.*
- *All areas (including unpaved roads) with vehicle traffic shall be watered or have a dust palliative applied as necessary for stabilization of dust emissions.*
- *All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.*

- *All land clearing, grading, earth moving or excavation activities shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.*
- *All inactive portions of the construction site shall be covered, seeded, or watered until a suitable cover is established. Alternatively, apply county-approved non-toxic soil stabilizers (according to manufacturers specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the local grading ordinance. Acceptable materials that may be used for chemical soil stabilization include petroleum resins, asphaltic emulsions, acrylics, and adhesives which do not violate Regional Water Quality Control Board or California Air Resources Board standards.*
- *Paved streets adjacent construction sites shall be swept or washed at the end of each day, or as required to remove excess accumulations of silt and/or mud which may have resulted from activities at the construction site.*
- *All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance.*
- *Re-establish ground cover on the site through seeding and watering in accordance with the local grading ordinance.*

Mitigation Measure #3.2-1b:

Place equipment and vehicle mitigation requirements in all construction contracts. All construction contracts will require the following:

- *Contactors shall provide a plan for approval by the NSAQMD demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_x reduction and 45% particulate reduction compared to the most recent CARB fleet average at time of construction. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.*
- *Properly maintain all mobile and stationary equipment.*

Impact #3.2-2: Project traffic would increase carbon monoxide concentrations at intersections affected by project traffic.

Discussion/Conclusion: Project traffic would increase concentrations of carbon monoxide along streets providing access to the proposed project. Carbon monoxide is a local pollutant (i.e., high concentrations are normally only found very near sources). The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations are usually only found near areas of high traffic volume and congestion.

The statewide *Transportation Project-Level Carbon Monoxide Protocol* recommends that carbon monoxide impacts be quantified for signalized intersections at Level of Service E or worse, as these locations represent “hot spots” for carbon monoxide and are the locations where violations of an ambient air quality standard are most likely.

No signalized intersections would be affected by the proposed project, such that Level of Service would decline to LOS E or worse. Since the proposed project is within an attainment area for carbon monoxide (ambient air quality standards are currently attained) and in an area with low background concentrations, changes in carbon monoxide levels resulting from the proposed project would not result in violations of the ambient air quality standards, and would represent a *less than significant* impact.

Mitigation Measures

No mitigation measures are required.

Impact #3.2-3: Project-related summertime emissions of ozone precursors would exceed the NSAQMD's thresholds of significance.

Discussion/Conclusion: The proposed project would result in several new sources of air pollutants affecting differing areas. Automobile traffic associated with project land uses would release new emissions along the local and regional roadway system as vehicle exhaust and as re-entrained road dust. Wood burning, combustion of natural gas, and other area sources would release pollutants within the proposed project area.

Each of these sources would vary seasonally. Exhaust emissions from auto traffic would peak in the summer months along with residential occupancy of the plan area. Road dust emissions from traffic, would peak during the winter months after application of sand to the highway system. Wood smoke emissions would also peak in the winter months when the demand for space heating is greatest.

Emissions from these sources have been estimated both for summer months and winter months. However, since ozone is a summertime pollutant, emissions of ozone precursors are most significant in the summer months. Similarly, since PM₁₀ problems occur primarily in the winter, wintertime emission of this pollutant is of primary importance.

Regional emissions have been calculated using the URBEMIS-2002 computer program. A description of the URBEMIS-2002 program and the assumptions made in its use are described in Appendix B along with printouts of the results. The URBEMIS-2002 program provided estimates of emissions from vehicle exhausts, road dust, landscaping equipment, natural gas combustion and commercial products. Emissions from wood burning were calculated separately as described in Appendix B.

Total emissions associated with the proposed project are shown in Table 3.2-3 for the two ozone precursors (reactive organic gases and nitrogen oxides). Ozone is a summertime pollutant, so

that project impacts on ozone air quality will be a result of summertime emissions. Summertime project emissions of ROG and NO_x exceed the NSAQMD's Level B significance threshold of 25 pounds per day but not the Level C significance threshold of 137 pounds per day. However, according to NSAQMD thresholds of significance, exceedance of Level B significance thresholds requires mitigation. Based on these criteria, the proposed project would have a *potentially significant* impact on regional ozone air quality.

**Table 3.2-3
Project Direct/Indirect Emissions in Pounds Per Day**

Source	ROG		NO _x		PM ₁₀	
	Summer	Winter	Summer	Winter	Summer	Winter
Vehicle Exhaust/ Road Dust	24.0	29.9	37.6	52.4	44.6	137.8
Landscaping	1.4	---	0.1	---	0.1	---
Wood Burning	---	132.8	---	19.7	---	151.5
Natural Gas Combustion	0.3	0.3	3.5	3.5	0.0	0.0
Architectural Coatings	8.9	---	---	---	---	---
Consumer Products	15.7	15.7	---	---	---	---
Total	50.3	178.7	41.2	75.6	44.7	289.3

Mitigation Measures

Implementation of the following mitigation measures would reduce this impact to a level of *less than significant*.

Mitigation Measure #3.2-3:

- *No open burning of any material within the project site.*
- *Landscape with native drought-resistant species to reduce the demand for gas powered landscape maintenance equipment.*
- *Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupants sensors.*
- *Incorporate appropriate passive solar design and solar heaters.*
- *Use devices that minimize the combustion of fossil fuels.*
- *Require that landscape maintenance vehicles and equipment be electric.*
- *Install electrical outlets on exterior walls to promote the use of electric landscape maintenance equipment.*
- *Install gas outlets for gas burning barbeques.*
- *Install low-NO_x hot water heaters.*

Impact #3.2-4: Project-associated emissions of wintertime PM₁₀ would exceed the NSAQMD significance threshold.

Discussion/Conclusion: Total PM₁₀ emissions associated with the proposed project are shown in Table 3.2-3. Particulate air quality in Truckee is a problem primarily in the winter months. Winter time emissions exceed the NSAQMD Level C threshold of 137 pounds per day.

Project emissions of PM₁₀ would affect air quality at differing times and locations. The bulk of the emissions are from wood burning and road dust. Road dust impacts would occur primarily offsite along the major roads accessing the proposed project. Wood burning emissions would occur within the proposed project site, but would affect the entire Truckee air basin. The proposed project would have a *potentially significant* impact on PM₁₀ air quality, particularly during the winter months.

Mitigation Measures

Implementation of the following mitigation measures would eliminate or offset proposed project emissions from wintertime wood burning and road dust. After mitigation, proposed project impacts on winter PM emissions would be below the NSAQMD Level C threshold of 137 pounds per day, and this impact would be reduced to a level that is *less than significant*.

Mitigation Measure #3.2-4a:

- *Prior to Final Map recordation, the project proponent shall either prohibit woodstoves on all single-family lots by placing a deed restriction on the title or pay an air quality mitigation fee per lot to the Air Quality Mitigation Fund to allow for EPA-Certified Phase II wood-burning devices. The amount of the fee shall be the fee established by Town Council resolution and in effect at the time of Final Map recordation.*
- *No open burning of trash, leaves, vegetation or other material will be allowed within the proposed project.*

Mitigation Measure #3.2-4b:

Prior to Final Map recordation, the project proponent shall pay an air quality mitigation fee to the Air Quality Mitigation Fund to offset PM₁₀ emissions from vehicle tail pipes and re-entrained road dust to a level of zero from these sources. The amount of the mitigation fee shall be based on 50% of the total PM₁₀ emissions estimated by Town Council resolution and in effect at the time of Final Map recordation. The fees collected will be used to reduce particulate matter emissions from existing sources within the Truckee Air Basin including improvements to street sanding and sweeping operations to reduce re-entrained road dust emissions.

Cumulative Impacts

Discussion/Conclusion: Long-term operational residual additions of ozone precursors (ROG and NO_x), and PM₁₀ from the proposed project and other proposed development in the Truckee sub-Air Basin could threaten the attainment status for ozone and PM₁₀ and/or could delay the efforts of the NSAQMD to reach attainment. Implementation of mitigation measures identified in this section would reduce cumulative air quality impacts. However, air quality impacts would remain *cumulatively considerable* and therefore, are *significant and unavoidable*. The proposed project's contribution to this impact has been identified within the General Plan EIR, for which the Town identified a Statement of Overriding Considerations (Resolution 96-09).

Nitrogen Oxides, one of the precursors of ozone, is a source of nitrogen-containing particulate matter suspected of contributing to atmospheric deposition of nitrogen and eutrophication of Lake Tahoe. The major sources of atmospheric deposition of nitrogen to the lake are emissions from within the Tahoe Basin itself (vehicles, wood burning, etc.) and transport into the Basin from the San Joaquin and Sacramento valleys. NO_x emissions from the proposed project represent a possible source of cumulative nitrogen deposition into Lake Tahoe. However, only a small fraction of the travel generated by the proposed project would be directed towards and into the Lake Tahoe Basin. Contribution of PM₁₀, ROG and NO_x as a result of the construction and operations of the proposed project would not result in a cumulatively considerable impact.