

4.4 AIR QUALITY

4.4.1 METHODOLOGY

The following is a description of the technical analysis approaches used to analyze the potential air quality impacts of the Proposed Project and Alternatives.

CONSTRUCTION-RELATED IMPACTS

URBEMIS 2002 version 8.7.0 was used to estimate emissions from all construction-related sources of the Proposed Project and Alternatives. URBEMIS is a California-specific computer model that is owned and modified by the local air pollution control districts and air quality management districts (AQMDs) in the State of California and recognized by the USEPA. URBEMIS estimates construction, area source, and operational emissions of ozone (O₃) precursors (reactive organic gases (ROG) and nitrogen oxides (NO_x)), carbon monoxide (CO), sulfur dioxide (SO₂), and inhalable particulate matter (PM₁₀) from potential land uses, using the most recent approved version of relevant California Air Resources Board (CARB) emissions models and emission factors and/or District-specific emission factors; and estimates emissions reductions. As discussed in **Section 3.4** of this EIS, the pollutants of concern in the Bay Area are ozone and particulate matter ten microns in size, therefore this document will primarily only provide information on the pollutants of concern. Because of URBEMIS's many enhancements, its ease of use, and its ready availability, the Bay Area Air Quality Management District (BAAQMD) strongly encourages Lead Agencies to use the model to estimate motor vehicle emissions from development proposals.¹ According to training documents, URBEMIS is typically used for CEQA, NEPA, & General Conformity.² The program is available from <http://www.urbemis.com>.

Previous versions of URBEMIS were designed to estimate only emissions from motor vehicle trips generated by land use development. The latest versions of URBEMIS have been enhanced so that the user can estimate construction and area source emissions and select mitigation measures for construction emissions, area sources, and employee motor vehicle trips.

For this project, URBEMIS defaults and site specific data were used with estimated construction times to begin in June of 2007, operating an average of 22 days per month for 27 months for Alternatives A, B, C, and F and 24 months for the reduced Alternatives D, E, G, and H. Output files from the URBEMIS 2002 model are presented in **Appendix W**.

¹ BAAQMD CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans, Bay Area Air Quality Management District, December, 1999.

² URBEMIS 2002 Training, Sacramento Metropolitan AQMD, December 7, 2005.

There are two distinct phases during construction of the Proposed Project; the demolition and site-grading phase and the building phase. During the demolition and site grading phase, Alternative A and H will demolish two houses with a total volume of 85,540 cubic feet and Alternatives B, D, E, and G will demolish a barn with a volume of 210,000 cubic feet. These two phases do not overlap and therefore are evaluated separately. Site grading takes place in 2007, while construction takes place in 2008 and 2009. Construction impacts are short-term and will not overlap in time with operational emissions; therefore, construction impact significance is determined by comparing emissions associated with construction to the general conformity *de minimis* levels. General conformity thresholds do not apply to Alternative G; therefore, local thresholds are determined by the BAAQMD. The BAAQMD states that construction emissions are generally short-term in duration, but may still cause adverse air quality impacts. Experience has shown that there are a number of feasible control measures that can be reasonably implemented to reduce construction emissions. The BAAQMD has determined that significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. If all appropriate control measures indicated in Table 2 of their Guidelines (BAAQMD, 1999) are implemented, construction impacts would be considered less than significant for PM₁₀. For the purposes of this EIS, in an attempt to be more comprehensive and after discussions with BAAQMD staff, construction-related emissions should be considered significant if they equal or exceed 100 tpy of ROG emissions, 100 tpy of NO_x emissions, 100 tpy of CO emissions, or 100 tpy of PM₁₀ emissions (Bourguignon, 2004). These standards mirror the general conformity *de minimus* thresholds and are used in determining significance for this project. Although the San Francisco Bay Area Air Basin has not been designated as nonattainment for PM_{2.5}, for the purposes of this EIS we assume that emissions greater than 100 tpy (the PM_{2.5} conformity *de minimus* threshold) should be considered significant.

Diesel Particulate Matter (DPM) has become a concern, since it was included as a toxic air contaminate in 1998. DPM is mainly emitted by heavy construction equipment and emissions in some instances can have a potentially significant impact. However, the Proposed Project and alternatives are located in areas where there are no more than 6 homes within 500 feet of the project sites. Given the sparsely populated area and mitigation measures outlined in Section 5.2.3 B construction DPM emissions would be less than significant and are not discussed in subsequent sections.

OPERATIONAL IMPACTS

URBEMIS 2002 for version 8.7.0 for Windows was also used to estimate emissions associated with long-term operation of the Proposed Project and Alternatives. Input values for the URBEMIS 2002 model included URBEMIS defaults and data from the traffic studies for the Proposed Project and Alternatives (Kimly-Horn and Associates, Inc., 2004a, 2004b, 2005).

URBEMIS is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, and office buildings and area sources such as gas appliances, wood stoves, fireplaces, and landscape maintenance equipment, as well as construction as mentioned above. URBEMIS uses data that is stratified by trip purpose. The trip categories are home to work, home to shop, home to other, other to work, and other to other. For non-home based trips, URBEMIS uses work, i.e. employee-based and non-work trips when analyzing all non-residential projects (commercial, industrial, institutional, etc).

Consistent with the approach applied in the traffic studies, the operational effects on air quality were analyzed with both near-term 2008 conditions, and with long-term 2020 conditions. Long-term air quality conditions are analyzed in **Section 4.12**.

Trip generation rates for the URBEMIS 2002 model runs have been adjusted to reflect primary and diverted-link trips estimated to be generated by the Proposed Project and Alternatives. This was done so that pass-by trips are not included in the URBEMIS 2002 analysis. Pass-by trips were excluded from the analysis to focus the analysis presented in this EIS on the net effects of each alternative. It was determined in the traffic study that although it was likely, some trips to the site would be pass-by trips, there was no empirical data to determine pass-by rate, so pass-by trips were conservatively not assumed in the analysis, however diverted-link trips were estimated at 15 percent.

The average length of vehicle trips associated with the Proposed Project and Alternatives is expected to vary from the default trip length values included in the URBEMIS 2002 model. Therefore, project-specific trip length values were used in the air quality analysis. The average trip length was estimated by:

- Identifying three geographic patron market areas (near market, medium distance, and long distance);
- Estimating the average distance to patrons in each market area;
- Estimating the percent of total patrons traveling from each market area; and
- Calculating an average trip length for all patrons.

Table 4.4-1 presents information on the calculation of the project-specific trip length values.

TABLE 4.4-1
CALCULATION OF AVERAGE TRIP LENGTH

Market Area	Population Centers	Average One-Way Trip Length (in miles)	Percent of Market
Alternatives A, B, C, D, E, and H			
Near Market	Santa Rosa to Petaluma	10	35%
Medium Distance	San Francisco, Oakland, Berkeley, Richmond, Martinez, Vallejo, Concord, Pittsburg, Fairfield, Vacaville, Napa County, Healdsburg, Cloverdale	40	50%
Long Distance	San Mateo County, Santa Clara County, central & eastern Alameda and Contra Costa counties, Yolo County, Sacramento County, Lake County, Mendocino County	80	15%
Weighted Average of All Three Markets		35.5	
Alternative F			
Near Market	Santa Rosa, Sonoma, Petaluma, San Rafael, Vallejo, Napa	10	45%
Medium Distance	San Francisco, San Mateo County, Oakland, Berkeley, Contra Costa County, Western Alameda County, Fairfield, Vacaville, Sausalito, Healdsburg, Cloverdale	40	45%
Long Distance	Santa Clara County, Eastern Alameda County, Yolo County, Sacramento County, Lake County, Mendocino County	80	10%
Weighted Average of All Three Markets		30.5	
Source: KDA, 2004; AES, 2005.			

Operational Carbon Monoxide (CO) Impacts

Screening Procedures

Elevated concentrations of CO can occur in “hotspots” that experience substantial traffic volumes and traffic congestion. Therefore, there is possibility for localized adverse effects of elevated CO levels on sensitive receptors. The optimum condition for high CO concentrations would be cool and calm weather (stable and reduced air mixing layer) at a congested major roadway intersection (e.g. arterials and majors) with high traffic volumes and idling vehicles.

An initial screening was conducted to determine the need for detailed microscale dispersion modeling of carbon monoxide concentrations. The potential impact of the project alternatives on

local CO levels was assessed by applying screening procedures described in the *Transportation Project-Level Carbon Monoxide Protocol* (Institute of Transportation Studies, University of California, Davis 1996) and then, if indicated by the screening procedures, conducting detailed microscale air quality dispersion modeling.

The screening procedure applied in this EIS focuses on the effects that project alternatives have on intersection operations. Since elevated CO concentrations are associated with traffic congestion, a project is considered to have no potential for significant impacts on CO concentrations if it does not substantially contribute to excessive traffic congestion.

According to Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, projects that would result in operation of a signalized intersection worsening from a level of service (LOS) D or better to a lower LOS rating (E or F) are considered to have the potential to result in a significant CO air quality impact. In addition, according to Section 4.7.3 of the protocol document, projects that would result in the worsening of a signalized intersection already operating at LOS E or F are considered to have the potential for resulting in a significant CO air quality impact.

Projects that meet such criteria are considered to have the potential to result in a significant CO air quality impact. According to the Protocol document, detailed dispersion modeling is not needed for projects that do not meet these criteria.

The screening procedures described above were applied to traffic analysis results presented in **Section 4.8**. The traffic analysis presents peak hour LOS at study intersections. Both the LOS results, and a comparison of LOS with and without the proposed project, are used to determine whether CO concentrations in excess of the air quality standards would occur. The CO screening procedure indicated that detailed modeling is not needed.

PM_{2.5}

Scientific evidence suggests that Sulfur Oxides (SO_x), Volatile Organic Compounds (VOC's), Nitrogen Oxides (NO_x), and ammonia (NH₃) are precursors to PM_{2.5}, however VOC's, and NH₃ have not been confirmed. At present the BAAQMD is in attainment for PM_{2.5}, however, in December 2006 the EPA changed the PM_{2.5} NAAQS from 65 micrograms per cubic meters (ug/m³) to 35 ug/m³. The new standard would most likely result in violations of the PM_{2.5} National Ambient Air Quality Standards (NAAQS) within the BAAQMD and ultimately cause the basin to be designated nonattainment. However, this will not happen until 2009 once the EPA evaluates the 2007 and 2008 PM_{2.5} data recorded by the District's monitoring stations (see **Table 3.4-5**). The BAAQMD could possibly be required to prepare a PM_{2.5} attainment plan by 2013.

ODOR IMPACTS

While offensive odors rarely cause any physical harm, they can be very unpleasant, and lead to considerable distress among the public and often generate citizen complaints to local governments and the local air districts. Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact. Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny. Consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. Analysis of potential odor impacts should be conducted for the following two situations:

- Generators – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate; and
- Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, the local air districts usually have no rules or standards related to odor emissions, other than a typical nuisance rule. For the Bay Area Air Quality Management District the nuisance rule is Regulation 1-301. Any actions related to odors are based on citizen complaints to local governments and the local air districts. BAAQMD Regulation 7 would be applicable if the BAAQMD receives odor complaints from ten or more complainants within a 90-day period. To test for a potential odor concern, a visual evaluation is made to determine whether the proposed project, either as a generator or a receiver, would result in sensitive receptors being affected by odors. If the alternative would result in sensitive receptors being located in an area affected by offensive odors, a more detailed analysis would be conducted.

To conduct a more detailed analysis, the BAAQMD's Compliance and Enforcement Division would be contacted for information regarding odor complaints. For projects involving a new receptor being located near an existing odor source(s), the Compliance and Enforcement Division would be asked to provide information on odor complaints logged for the facility(ies) for the previous three years. Odor complaints would be mapped in relation to the odor source to establish a general boundary of any existing impacts. The location of the project would also be identified.

TOXIC AIR CONTAMINANT (TAC) IMPACTS

Neither ambient air quality standards nor emission control standards have been established for most toxic air contaminants. In lieu of ambient air quality standards, toxic air contaminant impacts are considered significant if there is a reasonable concern that proposed project patrons and/or employees would be subject to exposure concentrations harmful to human health or welfare.

ASBESTOS IMPACTS

Demolition Activities

Project construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos. Most demolitions and many renovations are subject to an asbestos inspection prior to start of activity. The demolition, renovation or removal of asbestos-containing building materials is subject to the limitations of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations as listed in the Code of Federal Regulations (CFR) requiring notification, inspection, and compliance with local air district regulations (in this case, BAAQMD Regulation 11, Rule 2: Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing). Any demolition activity subject to, but not complying with the requirements of District Regulation 11, Rule 2 would be considered to have a significant impact.

Naturally Occurring Asbestos (NOA)

A preliminary review of the *General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos*, (California Department of Conservation, Division of Mines and Geology, August 2000) was conducted to verify if the alternative is located in an area of NOA, followed by an on-site visual inspection to determine the presence of ultramafic rocks.

Climate Change

Climate change is a global phenomenon attributable to the sum of all human activities and natural processes. It is not possible to attribute a particular climate change impact to a single development project. Project impacts are therefore most appropriately addressed in terms of the incremental contribution to a global cumulative impact. Please refer to discussion of cumulative impacts in **Section 4.12** for this analysis.

FEDERAL AIR QUALITY CONFORMITY

The project alternatives were evaluated to determine if the federal air quality conformity regulations are applicable. Emissions estimates used in the evaluation were developed using the URBEMIS version 8.7 model. Because the San Francisco Bay Area Air Basin (SFAAB) is a

marginal nonattainment area for 8-hour ozone and the urbanized areas of the SFBAAB are maintenance areas for carbon monoxide, the *de minimis* thresholds for ozone precursors (VOC and NO_x) and CO are 100 tons per year. At the time of preparation of this FEIS, the EPA has not yet determined the attainment status of PM_{2.5} for the SFBAAB. Should the SFBAAB be designated nonattainment for PM_{2.5}, there may be a need to demonstrate conformity for PM_{2.5}.

IMPACTS TO FEDERAL CLASS I AREAS

A radius surrounding each of the alternatives is investigated to determine if there are any Federal Class I areas within 100 kilometers. Emissions estimates are used to determine if the project is determined to be a major source with regards to the Prevention of Significant Deterioration (PSD) program.

IMPACTS TO INDOOR AIR QUALITY

The project alternatives were evaluated to determine if they complied with applicable rules, regulations, and standards regarding indoor air quality.

4.4.2 ALTERNATIVE A – PROPOSED PROJECT

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE A

Construction of Alternative A would result in the temporary generation of ozone precursors (ROG, NO_x), carbon monoxide (CO), and particulate matter less than 10 and 2.5 microns in diameter (PM₁₀ & PM_{2.5}) emissions. **Table 4.4-2** presents emissions from the construction phase (demolition/grading or building) with the highest construction-related emissions for Alternative A (and all other alternatives for ease of comparison). Construction of Alternative A is estimated to result in:

- 3.3 tons per year (tpy) of ROG,
- 16.0 tpy of NO_x,
- 21.2 tpy of CO,
- 4.2 tpy of PM₁₀,
- 4.2 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

TABLE 4.4-2
CONSTRUCTION-RELATED EMISSIONS
(TONS PER YEAR)

Project Alternative	ROG^c	NO_x^{cb}	CO	SO_x^b	PM_{2.5}^a	PM₁₀
Alternative A – Proposed Project						
Amount of Emissions	3.3	16.0	21.2	0.0	4.2	4.2
Significant Effect?	No	No	No	No	No	No
Alternative B – Northwest Stony Point Casino						
Amount of Emissions	2.9	16.0	21.0	0.0	3.4	3.4
Significant Effect?	No	No	No	No	No	No
Alternative C – Northeast Stony Point Casino						
Amount of Emissions	3.3	16.0	21.0	0.0	4.1	4.1
Significant Effect?	No	No	No	No	No	No
Alternative D – Reduced Intensity						
Amount of Emissions	2.1	10.3	13.4	0.0	1.3	1.3
Significant Effect?	No	No	No	No	No	No
Alternative E – Business Park						
Amount of Emissions	1.4	6.2	6.9	0.0	2.8	2.8
Significant Effect?	No	No	No	No	No	No
Alternative F – Lakeville Casino						
Amount of Emissions	2.3	14.5	18.7	0.0	1.6	1.6
Significant Effect?	No	No	No	No	No	No
Alternative G – No Action						
Amount of Emissions	1.3	7.0	7.2	0.0	2.9	2.9
Significant Effect?	N/A	N/A	N/A	N/A	NA	N/A
Alternative H – Wilfred Site Reduced Intensity						
Amount of Emissions	2.1	10.8	13.7	0.0	2.7	2.7
Significant Effect?	No	No	No	No	No	No

NOTES: Emissions shown are for the highest year in the multi-year construction period without the implementation of mitigation measures. Significance threshold amount is 100 tons per year for ROG, NO_x, CO, PM_{2.5}, and PM₁₀. Alternative G is not a federal action and therefore not subject to conformity.

^a CARB speciation profile shows that 99.2% of PM₁₀ is PM_{2.5} for gasoline powered engine emissions and 92.0% for diesel powered engine emissions. 99.2% is assumed here for a conservative analysis.

^b PM_{2.5} precursors.

^c Ozone precursors.

SOURCE: KDA 2004, URBEMIS, 2002.

The USEPA published a rule (referred to as the “general conformity rule”) that describes how federal agencies determine whether their actions conform to the applicable State Implementation Plan (SIP) (40 CFR § 51.853). The rule establishes *de minimis* emissions thresholds that are used to determine whether a detailed conformity determination is required. The general conformity rule presents different threshold levels for some pollutants, with the specific level being based on the severity of the pollution problem. Thresholds for ozone precursors are considered separately, not as combined. Based on discussions with BAAQMD staff, construction-related emissions should be considered significant if they equal or exceed 100 tpy of ROG emissions, 100 tpy of NO_x emissions, 100 tpy of CO emissions, or 100 tpy of PM₁₀ emissions (Bourguignon, 2004). These standards mirror the general conformity *de minimis* thresholds. Although the San Francisco Bay Area Air Basin has not been designated as nonattainment for PM_{2.5}, for the purposes of this EIS we assume that emissions greater than 100 tpy (the PM_{2.5} conformity *de minimis* threshold) should be considered significant.

As shown in **Table 4.4-2**, ROG, NO_x, CO, SO_x, PM_{2.5}, and PM₁₀ construction emissions would be less than 100-tpy each and result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce PM₁₀ emissions due to fugitive dust levels and exhaust emissions from the construction of Alternative A and work to minimize any temporary and intermittent impacts that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE A

Impacts from Demolition

Implementation of Alternative A would result in the demolition of two existing structures located on the Wilfred site. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Such techniques are required by federal NESHAP regulations. Therefore, a less-than-significant asbestos impact would result from Alternative A.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that Alternative A is not located in an area of NOA, thus Alternative A would have a less-than-significant impact.

OPERATIONAL IMPACTS OF ALTERNATIVE A

Suitable emissions thresholds for air quality impacts are contained within the *BAAQMD CEQA Guidelines - Assessing the Air Quality Impacts of Projects and Plans* (BAAQMD, 1999). This document is meant to assure compliance with the state and federal Clean Air Acts (CAAs). The

thresholds for the ozone precursors ROG and NO_x are to be considered individually, not as combined. The BAAQMD's thresholds are:

- 80 pounds per day (ppd) and 15 tpy of ROG,
- 80 ppd and 15 tpy of NO_x, and
- 80 ppd and 15 tpy of PM₁₀ emissions.

Given that there are no local emissions thresholds for PM_{2.5} and SO_x, general conformity *de minimus* thresholds (100 tpy) were used to determine significance for PM_{2.5} and SO_x.

Operation of Alternative A would result in the generation of ROG, NO_x, CO, PM_{2.5}, SO_x, and PM₁₀ emissions primarily from traffic generated by the project. **Table 4.4-3** presents an estimate of these operational emissions for Alternative A with near-term conditions. The results for the other alternatives are also presented in **Table 4.4-3** for ease of comparison. Operation of Alternative A is estimated to result in:

- 378 pounds per summer day (ppsd)³ and 77 tpy of ROG,
- 730 ppsd and 156 tpy of NO_x,
- 779 ppd and 142 tpy of PM₁₀,
- 773 ppd and 141 tpy of PM_{2.5}, and
- 4.41 ppsd and 0.80 tpy of SO_x emissions.

It should be noted that for the purpose of this analysis, pounds per summer day (ppsd) was used for ROG and NO_x to represent the ozone season and get a worst-case evaluation; therefore there is no simple correlation between the daily and the yearly numbers. SO_x would be less than the 100 tpy threshold and would be a less-than-significant effect. ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppd and 15 tpy thresholds, and would be a significant effect. PM_{2.5} emissions would be greater than the 100 tpy conformity threshold and would therefore be considered a significant effect. Mitigation measures contained in **Section 5.2.3** would reduce significant effects on air quality to a less-than-significant level.

General Conformity

The general conformity rule applies to direct and indirect emissions, which are analyzed in this EIS and presented in **Table 4.3-3**, as required by the CAA.

The entire SFBAAB is in marginal nonattainment for ozone and therefore has a *de minimis* threshold of 100 tons per year (tpy) of ozone precursors (NO_x and VOC). In addition, Alternative A is part of the urbanized areas of the SFBAAB that are considered maintenance

³ Pounds per summer day is used to represent the ozone season and get a worst-case evaluation

areas for carbon monoxide (CO) and therefore has a *de minimis* threshold of 100 tpy of CO. Alternative A exceeds the *de minimis* thresholds for NO_x and CO. A Conformity Determination was conducted for NO_x and CO to determine further requirements and is shown in **Appendix W**. It was determined that conformity requirements are met for CO emissions, warranting no further action. It was determined that NO_x emissions would have to be fully offset with emissions credits (effectively lowering NO_x emissions to zero) for the Proposed Project to be in conformity with the applicable State Implementation Plan.

Carbon Monoxide Hot Spot Impacts of Alternative A

As shown in **Section 4.8.2** and **5.2.7**, all of the study intersections under Alternative A would operate at, or will be mitigated to a LOS D or higher, under 2008 conditions. Based on **Section 4.7.4** of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative A is not considered to have the potential to result in a significant CO air quality impact. Therefore, this impact is considered to be less than significant.

Alternative A would include a parking structure. Vehicles operating within the parking structure would generate CO emissions. The parking structure would include openings on the exterior surfaces to provide for flow-through ventilation. Additional mechanical ventilation is not proposed, but could be added at the design stage to improve airflow within the parking structure. The primary occupied structure in the vicinity of the parking garage would be the casino, however rural residential land uses are located nearby. Therefore, CO emitted by the flow-through ventilation of the parking structure would not have a significant effect on air quality. However, should mechanical ventilation be employed, concentrated CO emissions could result in a significant effect if directed toward sensitive receptors. Mitigation measures to reduce this potential effect to a less-than-significant level are included in **Section 5.2.3**.

TABLE 4.4-3
NEAR-TERM OPERATIONAL EMISSIONS

Project Alternatives	ROG ^c		NO _x ^{bc}		PM _{2.5} ^a		PM ₁₀		SO _x ^b		CO
	ppsd	tpy	ppsd	tpy	ppd	tpy	ppd	tpy	ppsd	tpy	tpy
Alternative A - Proposed Project											
Amount of Emissions	378	77	730	156	773	141	779	142	4.41	0.80	1,177
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	No	N/A	Yes	N/A	Yes	N/A	N/A	N/A	No	Yes
Alternative B - Northwest Stony Point Casino											
Amount of Emissions	380	78	730	156	773	141	779	142	4.41	0.80	1,177
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	No	N/A	Yes	N/A	Yes	N/A	N/A	N/A	No	Yes
Alternative C - Northeast Stony Point Casino											
Amount of Emissions	380	78	730	156	773	141	779	142	4.41	0.80	1,177
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	No	N/A	Yes	N/A	Yes	N/A	N/A	N/A	No	Yes
Alternative D - Reduced Intensity											
Amount of Emissions	263	54	509	109	541	98	545	99	3	0.56	823
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	No	N/A	Yes	N/A	No	N/A	N/A	N/A	No	Yes
Alternative E - Business Park											
Amount of Emissions	61	12	70	15	69	13	70	13	0.49	0.08	136
Locally significant effect?	No	No	No	No	N/A	N/A	No	No	N/A	N/A	N/A
Greater than de minimis?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alternative F - Lakeville Casino											
Amount of Emissions	380	78	730	156	773	141	779	142	4.41	0.80	1,177
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	No	N/A	Yes	N/A	Yes	N/A	N/A	N/A	No	Yes
Alternative G - No Action											
Amount of Emissions	138	27	133	28	116	21	117	21	0.84	0.14	259
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alternative H – Wilfred Site Reduced Intensity											
Amount of Emissions	263	54	509	109	541	98	545	99	3	0.56	823
Locally significant effect?	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A
Greater than de minimis?	N/A	No	N/A	Yes	N/A	No	N/A	N/A	N/A	No	Yes

NOTES: ROG = reactive organic gases; NO_x = nitrogen oxides; PM₁₀ = particulate matter 10 microns in size; PM_{2.5} = particulate matter 2.5 microns in size; SO_x = sulfur oxides; CO = carbon monoxide. Emissions shown are for mobile sources and area sources without the implementation of mitigation measures. Source for local significance thresholds is BAAQMD 1999. Significance threshold amount is 15 tpy and 80 ppd for ROG, NO_x, and PM₁₀. Source for conformity (de minimis) thresholds is Title 40, Part 51, Section 51.853(b). CO is only reported in tons per year for conformity purposes. The BAAQMD does not have a local emissions threshold for CO, SO_x, or PM_{2.5}.

^a CARB speciation profile shows that 99.2% of PM₁₀ is PM_{2.5} for gasoline powered engine emissions and 92.0% for diesel powered engine emissions. 99.2% is assumed here for a conservative analysis.

^b PM_{2.5} precursors. ^c Ozone precursors. N/A = not applicable.

SOURCE: KDA 2004, URBEMIS, 2002.

ODOR IMPACTS OF ALTERNATIVE A

Alternative A itself would not contribute odors to the region. There are no existing odor generators that might impact the sensitive receptors associated with Alternative A. However, if the on-site wastewater treatment plant (WWTP) option is chosen, and not properly operated, could produce sources of odors that could represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to less than significant levels.

TOXIC AIR CONTAMINANT (TAC) IMPACTS OF ALTERNATIVE A

The gaming facility under Alternative A would not itself contribute or generate toxic air contaminants. However, bus and diesel trucks traveling to and from the gaming facility; especially in loading areas, would result in an increased concentration of diesel emissions. This increase in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE A

The Point Reyes National Seashore is the only federal Class I area within 100 kilometers of Alternative A. Analysis of operational emissions associated with Alternative A is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the Prevention of Significant Deterioration (PSD) program. As shown in the URBEMIS model results in **Appendix W**, Alternative A's area source emissions of regulated pollutants would be no higher than 0.72 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative A, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY IMPACTS OF ALTERNATIVE A

Environmental tobacco smoke (ETS), also known as second-hand smoke, is a complex mixture of chemicals generated during the burning and smoking of tobacco products to which non-smokers are exposed. On January 26, 2006, CARB identified ETS as a TAC. ETS is now formally identified as an airborne toxic substance that may cause and/or contribute to death or serious illness. Since smoking will be permitted indoors at the casino, patrons of the proposed gaming facility could be exposed to toxics and carcinogens from indoor tobacco use. Although the deleterious effects of ETS are widely known, it is possible that some employees or patrons would

be unknowingly exposed to ETS without realizing its harmful effects. Such exposure to ETS from Alternative A would be a potentially significant effect.

Other indoor pollution sources that release gases or particles into the air can be the cause of indoor air quality problems in buildings. Inadequate ventilation can increase indoor pollutant levels by not bringing in enough outdoor air to dilute emissions from indoor sources and by not carrying indoor air pollutants out of the building. High temperature and humidity levels can also increase concentrations of some pollutants. Ventilation is a standard engineering approach to assuring good indoor air quality and comfort. Ventilation removes and dilutes indoor contaminants, removes moisture from the air, which helps to prevent mold growth, and removes body effluents such as carbon dioxide that lead to a stuffy environment. Natural ventilation, through open windows and doors, is the primary ventilation route for residences, while mechanical ventilation, using heating, ventilation, and air conditioning (HVAC) systems, is most common in commercial buildings. Adequate and effective ventilation, and ducting of exhaust from combustion appliances, are necessary for acceptable indoor air quality, even when known air contaminants are minimized.

While there are no federal requirements for controlling indoor air pollution or existing indoor air pollution thresholds, industry standards are available for reducing the concentrations of indoor air pollution. Industry and professional groups have developed numerous guidelines for improving indoor air quality. An example is the building ventilation standard of the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), (*Ventilation for Acceptable Indoor Air Quality*, ASHRAE Standard 62-2001). Even though industry and professional guidelines may vary in their degree of indoor air quality protection, they are widely used and generally have helped reduce some indoor pollutants over the years. Such measures will be evaluated at the time that detailed plans and specifications are prepared for the HVAC system in order to remain in compliance with ordinances of the Tribe that might be implemented to be consistent with state and local indoor air requirements.

The effect of Alternative A on indoor air quality is significant with regards to environmental tobacco smoke but less-than-significant with regards to other sources. Compliance with mitigation measures listed in **Section 5.2.3** of this document will reduce effects of environmental tobacco smoke, to a less-than-significant level for Alternative A. Other mitigation measures are contained in **Section 5.2.3** to reduce the effects of other sources on indoor air quality of Alternative A even further.

4.4.3 ALTERNATIVE B – NORTHWEST STONY POINT CASINO

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE B

Construction of Alternative B would result in the temporary generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction phase with the highest construction-related emissions for Alternative B. Construction of Alternative B is estimated to result in:

- 2.9 tons per year (tpy) of ROG,
- 16.0 tpy of NO_x,
- 21.0 tpy of CO,
- 3.4 tpy of PM₁₀,
- 3.4 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

A discussion of the general conformity rule and BAAQMD construction emission thresholds appears in **Section 4.4.2**. As shown in **Table 4.4-2**, ROG, NO_x, CO, SO_x, PM_{2.5}, and PM₁₀ construction emissions would be less than 100 tpy and would therefore result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce the fugitive dust levels from construction of Alternative B and work to prevent the temporary and intermittent impact that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE B

Impacts from Demolition

Implementation of Alternative B would result in the demolition of a barn structure on the Stony Point site. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Such techniques are required by federal NESHAP regulations; therefore, are considered as a less-than-significant impact would result.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that the Stony Point site is not located in an area of NOA, thus Alternative B would have a less-than-significant impact from NOA.

OPERATIONAL IMPACTS OF ALTERNATIVE B

Operation of Alternative B would result in the generation of ROG, NO_x, PM_{2.5}, SO_x, and PM₁₀ emissions primarily from traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative B with near-term conditions. Operation of Alternative B is estimated to result in:

- 380 ppsd and 78 tpy of ROG,
- 730 ppsd and 156 tpy of NO_x,
- 779 ppd and 142 tpy of PM₁₀,
- 773 ppd and 141 tpy of PM_{2.5}, and
- 4.41 ppsd and 0.80 tpy of SO_x emissions.

It should be noted that for the purpose of this analysis, pounds per summer day (ppsd) was used for ROG and NO_x to represent the ozone season and get a worst-case evaluation; therefore there is no simple correlation between the daily and the yearly numbers. SO_x would be less than the 100 tpy threshold and would be a less-than-significant effect. ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppd and 15 tpy thresholds, and would be a significant effect. PM_{2.5} emissions would be greater than the 100 tpy conformity threshold and would therefore be considered a significant effect. Mitigation measures contained in **Section 5.2.3** would reduce significant effects on air quality to a less-than-significant level.

General Conformity

The entire SFBAAB is marginal nonattainment for ozone and therefore has a *de minimis* threshold of tpy of ozone precursors (NO_x and VOC). In addition, Alternative B is part of the urbanized areas of the SFBAAB that are considered maintenance areas for CO and therefore has a *de minimis* threshold of 100 tpy of CO. Alternative B exceeds the *de minimis* thresholds for NO_x and CO. A Conformity Determination was conducted for NO_x to determine further requirements (see **Appendix W**). It was determined that conformity requirements are met for CO emissions, warranting no further action. It was determined that NO_x emissions would have to be fully offset with emissions credits (effectively lowering NO_x emissions to zero) for the Proposed Project to be in conformity with the applicable SIP.

Hot Spot Impacts of Alternative B

As shown in **Sections 4.8.3** and **5.2.7**, all of the study intersections under Alternative B would operate at, or be mitigated to, a LOS D or better under 2008 conditions. Based on Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative B is not considered to have the potential to result in a significant CO air quality impact. Alternative B would have a similar parking structure as Alternative A; therefore, the impact would be the same. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE B

Alternative B itself would not contribute odors to the region. There are no existing odor generators that might impact the sensitive receptors associated with Alternative B. However, the on-site wastewater treatment plant, if not properly operated, could produce sources of odors that

represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to less than significant.

TOXIC AIR CONTAMINANTS (TACs) IMPACTS OF ALTERNATIVE B

The gaming facility under Alternative B would not itself contribute or generate TACs. However, bus and diesel truck travel to and from the gaming facility, especially loading areas, would result in an increased concentration of diesel emissions in those areas. This increase in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE B

The Point Reyes National Seashore is the only Federal Class I area within 100 kilometers of Alternative B. Analysis of operational emissions associated with Alternative B is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the PSD program. As shown in the URBEMIS model results in **Appendix W**, Alternative B's area source emissions of regulated pollutants would be no higher than 0.72 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative B, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE B

A discussion of indoor air quality appears in **Section 4.4.2**.

The effect of Alternative B on indoor air quality is significant with regards to environmental tobacco smoke, but less than significant with regards to other sources. Compliance with mitigation measure listed in **Section 5.2.3** of this document will reduce effects of environmental tobacco smoke to a less-than-significant level for Alternative B. Other mitigation measures are contained in **Section 5.2.3** to reduce the effects of other sources on indoor air quality of Alternative B even further.

4.4.4 ALTERNATIVE C – NORTHEAST STONY POINT CASINO

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE C

Implementation of Alternative C would result in temporary construction-related generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction

phase with the highest construction-related emissions for Alternative C. Construction of Alternative C is estimated to result in:

- 3.3 tons per year (tpy) of ROG,
- 16.0 tpy of NO_x,
- 21.0 tpy of CO,
- 4.1 tpy of PM₁₀,
- 4.1 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

A discussion of the general conformity rule and BAAQMD construction emission thresholds appears in **Section 4.4.2**. As shown in **Table 4.4-2**, ROG, NO_x, CO, SO_x, PM_{2.5}, and PM₁₀ construction emissions would be less than 100-tpy and would therefore result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce the fugitive dust levels from construction of Alternative C and work to prevent the temporary and intermittent impact that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE C

Impacts from Demolition

Implementation of Alternative C would result in the demolition of a barn structure on the Stony Point site. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Such techniques are required by federal NESHAP regulations; therefore, result in a less-than-significant impact.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that Alternative C is not located in an area of NOA, thus Alternative C would have a less-than-significant impact from NOA.

OPERATIONAL IMPACTS OF ALTERNATIVE C

Operation of Alternative C would result in the generation of ROG, NO_x, PM_{2.5}, SO_x, and PM₁₀ emissions primarily from traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative C with near-term conditions. Operation of Alternative C is estimated to result in:

- 380 ppsd and 78 tpy of ROG,
- 730 ppsd and 156 tpy of NO_x,
- 779 ppd and 142 tpy of PM₁₀,

- 773 ppsd and 141 tpy of PM_{2.5}, and
- 4.41 ppsd and 0.80 tpy of SO_x emissions.

It should be noted that for the purpose of this analysis, pounds per summer day (ppsd) was used for ROG and NO_x to represent the ozone season and get a worst-case evaluation; therefore there is no simple correlation between the daily and the yearly numbers. SO_x would be less than the 100 tpy threshold and would be a less-than-significant effect. ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppsd and 15 tpy thresholds, and would be a significant effect. PM_{2.5} emissions would be greater than the 100 tpy conformity threshold and would therefore be considered a significant effect. Mitigation measures contained in **Section 5.2.3** would reduce significant effects on air quality to a less-than-significant level.

General Conformity

The entire SFBAAB is marginal nonattainment for ozone and therefore has a *de minimis* threshold of tpy of ozone precursors (NO_x and VOC). In addition, Alternative C is part of the urbanized areas of the SFBAAB that are considered maintenance areas for CO and therefore has a *de minimis* threshold of 100 tpy of CO. Alternative C exceeds the *de minimis* thresholds for NO_x and CO. A Conformity Determination was conducted for NO_x to determine further requirements (see **Appendix W**). It was determined that conformity requirements are met for CO emissions, warranting no further action. It was determined that NO_x emissions would have to be fully offset with emissions credits (effectively lowering NO_x emissions to zero) for the Proposed Project to be in conformity with the applicable SIP.

Carbon Monoxide Hot Spot Impacts of Alternative C

As shown in **Sections 4.8.4** and **5.2.7**, all of the study intersections for Alternative C would operate at, or be mitigated to, a LOS D or better under 2008 conditions. Based on Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative C is not considered to have the potential to result in a significant CO air quality impact. Alternative C would have a similar parking structure as Alternative A; therefore, the impact would be the same. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE C

Alternative C itself would not contribute odors to the region. There are no existing odor generators that might impact the sensitive receptors associated with Alternative C. However, the on-site wastewater treatment plant, if not properly operated, could produce sources of odors that represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to less than significant.

TOXIC AIR CONTAMINANTS IMPACTS (TACs) OF ALTERNATIVE C

The gaming facility under Alternative C would not itself contribute or generate TACs. However, bus and diesel truck travel to and from the gaming facility, especially loading areas, would result in an increased concentration of diesel emissions in those areas. This increase in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE C

The Point Reyes National Seashore is the only Federal Class I area within 100 kilometers of Alternative C. Analysis of operational emissions associated with Alternative C is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the PSD program. As shown in the URBEMIS model results in **Appendix W**, Alternative C's area source emissions of regulated pollutants would be no higher than 0.72 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative C, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE C

A discussion of indoor air quality appears in **Section 4.4.2**.

The effect of Alternative C on indoor air quality is significant with regards to environmental tobacco smoke, but less than significant with regards to other sources. Compliance with mitigation measure listed in **Section 5.2.3** of this document will reduce effects of environmental tobacco smoke to a less-than-significant level for Alternative C. Other mitigation measures are contained in **Section 5.2.3** to reduce the effects of other sources on indoor air quality of Alternative C even further.

4.4.5 ALTERNATIVE D – REDUCED INTENSITY (STONY POINT SITE)

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE D

Implementation of Alternative D would result in temporary construction-related generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction phase with the highest construction-related emissions for Alternative D.. Construction of Alternative D is estimated to result in:

- 2.1 tpy of ROG,
- 10.3 tpy of NO_x,

- 13.4 tpy of CO,
- 1.3 tpy of PM₁₀,
- 1.3 tpy of PM_{2.5}, and
- 0.0 tpy of SOx emissions.

Discussion on the general conformity rule and BAAQMD construction emission thresholds appears in **Section 4.4.2**. As shown in **Table 4.4-2**, ROG, NO_x, CO, SOx, PM_{2.5}, and PM₁₀ construction emissions would be less than 100-tpy and would therefore result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce the fugitive dust levels from construction of Alternative D and work to prevent the temporary and intermittent impact that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE D

Impacts from Demolition

Implementation of Alternative D would result in the demolition of a barn structure on the Stony Point site. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Such techniques are required by federal NESHAP regulations; therefore, a result in a less-than-significant impact.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that Alternative D is not located in an area of NOA, thus Alternative D would have a less-than-significant impact from NOA.

OPERATIONAL IMPACTS OF ALTERNATIVE D

Operation of Alternative D would result in the generation of ROG, NO_x, PM_{2.5}, SOx, and PM₁₀ emissions primarily from traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative D with near-term conditions.

Operation of Alternative D is estimated to result in:

- 263 ppsd and 54 tpy of ROG,
- 509 ppsd and 109 tpy of NO_x,
- 545 ppsd and 99 tpy of PM₁₀,
- 541 ppsd and 98 tpy of PM_{2.5}, and
- 3 ppsd and 0.56 tpy of SOx emissions.

It should be noted that for the purpose of this analysis, pounds per summer day (ppsd) was used for ROG and NO_x to represent the ozone season and get a worst-case evaluation; therefore there

is no simple correlation between the daily and the yearly numbers. SO_x would be less than the 100 tpy threshold and would be a less than significant effect. ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppd and 15 tpy thresholds, and would be a significant effect. PM_{2.5} emissions would be less than the 100 tpy conformity threshold and would therefore be considered to have a less than significant effect. Mitigation measures contained in **Section 5.2.3** would reduce significant effects on air quality to a less-than-significant level.

General Conformity

The entire SFBAAB is marginal nonattainment for ozone and therefore has a *de minimis* threshold of tpy of ozone precursors (NO_x and VOC). In addition, Alternative D is part of the urbanized areas of the SFBAAB that are considered maintenance areas for CO and therefore has a *de minimis* threshold of 100 tpy of CO. Alternative D exceeds the *de minimis* thresholds for NO_x and CO. A Conformity Determination was conducted for NO_x to determine further requirements (see **Appendix W**). It was determined that conformity requirements are met for CO emissions, warranting no further action. It was determined that NO_x emissions would have to be fully offset with emissions credits (effectively lowering NO_x emissions to zero) for the Proposed Project to be in conformity with the applicable SIP.

Carbon Monoxide Hot Spot Impacts of Alternative D

As shown in **Sections 4.8.5** and **5.2.7**, all of the study intersections under Alternative D would operate at, or be mitigated to, a LOS D or better under 2008 conditions. Based on **Section 4.7.4** of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative D is not considered to have the potential to result in a significant CO air quality impact. Alternative D would have a similar parking structure as Alternative A; therefore, the impact would be the same. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE D

Alternative D itself would not contribute odors to the region. There are no existing odor generators that might impact the sensitive receptors associated with Alternative D. However, the on-site wastewater treatment plant, if not properly operated, could produce sources of odors that could represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to less than significant.

TOXIC AIR CONTAMINANTS (TACS) IMPACTS OF ALTERNATIVE D

The gaming facility under Alternative D would not itself contribute or generate toxic air contaminants. However, bus and diesel truck travel to and from the gaming facility, especially loading areas, would result in an increased concentration of diesel emissions in those areas. This

increase in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE D

The Point Reyes National Seashore is the only Federal Class I area within 100 kilometers of Alternative D. Analysis of operational emissions associated with Alternative D is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the PSD program. As shown in the URBEMIS model results in **Appendix W**, Alternative D's area source emissions of regulated pollutants would be no higher than 0.33 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative D, a less than significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE D

A discussion of indoor air quality impacts appears in **Section 4.4.2**.

The effect of Alternative D on indoor air quality is significant with regards to environmental tobacco smoke, but less-than-significant with regards to other sources. Compliance with mitigation measure listed in **Section 5.2.3** of this document will reduce adverse effects of environmental tobacco smoke to less-than-significant for Alternative D. Other mitigation measures are contained in **Section 5.2.3** to reduce the adverse effects of other sources on indoor air quality of Alternative D even further.

4.4.6 ALTERNATIVE E – BUSINESS PARK

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE E

Implementation of Alternative E would result in temporary construction-related generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction phase with the highest construction-related emissions for Alternative E.. Construction of Alternative E is estimated to result in:

- 1.4 tpy of ROG,
- 6.2 tpy of NO_x,
- 6.9 tpy of CO,
- 2.8 tpy of PM₁₀,
- 2.8 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

A discussion on the general conformity rule and BAAQMD construction emission thresholds appears in **Section 4.4.2**. As shown in **Table 4.4-2**, ROG, NO_x, CO, and PM₁₀ construction emissions would be less than 100-tpy and would therefore result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce the fugitive dust levels from construction of Alternative E and work to prevent the temporary and intermittent impact that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE E

Impacts from Demolition

Implementation of Alternative E would result in the demolition of some existing structures on the Stony Point site. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Such techniques are required by federal NESHAP regulations; therefore, result in a less-than-significant impact.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that Alternative E is not located in an area of NOA, thus Alternative E would have a less-than-significant impact from NOA.

OPERATIONAL IMPACTS OF ALTERNATIVE E

Operation of Alternative E would result in the generation of ROG, NO_x, PM_{2.5}, SO_x, and PM₁₀ emissions primarily from traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative E with near-term conditions. Operation of Alternative E is estimated to result in:

- 61 ppsd and 12 tpy of ROG,
- 70 ppsd and 15 tpy of NO_x,
- 70 ppsd and 13 tpy of PM₁₀,
- 69 ppsd and 13 tpy of PM_{2.5}, and
- 0.49 ppsd and 0.08 tpy emissions.

It should be noted that for the purpose of this analysis, pounds per summer day (ppsd) was used for ROG and NO_x to represent the ozone season and get a worst-case evaluation; therefore there is no simple correlation between the daily and the yearly numbers. With near-term conditions, ROG emissions would be less than the 80 ppsd and 15 tpy thresholds, and would be a less-than-significant effect. NO_x emissions would not exceed the 80 ppsd and 15 tpy thresholds, and would be a less-than-significant effect. PM₁₀ emissions would be less than the 80 ppsd and 15 tpy

thresholds, and would be a less-than-significant effect. PM 2.5 and SOx emissions are less than the conformity threshold of 100 tpy and therefore would be considered to have a less-than-significant effect.

General Conformity

Alternative E does not include a federal action. General Conformity does not apply as there would be no management contract approval by the NIGC.

Carbon Monoxide Hot Spot Impacts of Alternative E

As shown in **Sections 4.8.6** and **5.2.7**, all of the study intersections under Alternative E would operate at, or be mitigated to, a LOS D or better under 2008 conditions. Based on Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative E is considered to not have the potential for resulting in a significant CO air quality impact. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE E

There is the potential of future on-site businesses to produce offensive odors. Mitigation measures listed in **Section 5.2.3** would reduce this potential effect to a less than significant level.

Additionally, the on-site wastewater treatment plant, if not properly operated, could represent sources of odors that could represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to a less-than-significant level.

TOXIC AIR CONTAMINANTS (TAC) IMPACTS OF ALTERNATIVE E

The commercial development under Alternative E would not itself contribute or generate toxic air contaminants. However, bus and diesel truck travel to and from the commercial areas, especially loading areas, would result in an increased concentration of diesel emissions in those areas. This increase in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

Alternative E has the potential to locate dry cleaning facilities and/or gasoline stations among its proposed commercial/retail land uses. Perchloroethylene (perc) is the solvent most commonly used by the dry cleaning industry to clean clothes and other materials, and inhalation of perc may result in both cancer and adverse non-cancer health effects (CARB 2005d). Perc dry cleaners statewide are required to comply with CARB and BAAQMD regulations to reduce emissions. However, even with these controls, some emissions continue to occur. Air quality studies

indicate that there is still the potential for substantial risks even near well-controlled dry cleaners (CARB 2005d). These studies also indicate that the health risks from perc dry cleaners decrease rapidly as the distance from the facility increases. The California Air Pollution Control Officers Association is currently developing industry-wide risk assessment guidelines for perchloroethylene dry cleaners which, when published, will provide detailed information on public health risk from exposure to emissions from this source.

Alternative E also has the potential to locate gasoline-dispensing facilities. Refueling at gasoline dispensing facilities releases benzene into the air. Benzene is a potent carcinogen and is one of the highest risk air pollutants regulated by CARB. Although gasoline-dispensing facilities account for a small part of total benzene emissions, near-source exposures for large facilities can be substantial. Benzene emissions from the largest gas stations may result in near-source health risk beyond the regional background and district health risk thresholds. Air quality modeling of the health risks from gasoline dispensing facilities indicate that the impact from such facilities decreases rapidly as the distance from the facility increases, and as the size (throughput, measured in gallons per year) of the facilities is decreased.

The proposed project could potentially locate a perc dry cleaner in the same building or in close proximity to a sensitive receptor (e.g., a day care center or residences). However, it is important to note that all stationary sources that have the potential to emit TACs are required to obtain permits from BAAQMD. Permits may be granted to these operations if they are located, constructed, and operated in accordance with applicable regulations. Given that compliance with applicable standards is required for the development and operation of land uses that may result in the emissions of TACs, toxic air emissions from stationary sources both within and adjacent to the project area would be anticipated to be within established standards. Nonetheless, applicable design guidelines from CARB's *Air Quality and Land Use Handbook* (CARB 2005d) are provided under mitigation measure listed in **Section 5.2.3** of this EIS to reduce any impacts to a less-than-significant level.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE E

The Point Reyes National Seashore is the only Federal Class I area within 100 kilometers of Alternative E. Analysis of operational emissions associated with Alternative E is broken down into mobile and area (facility) sources. Only area sources are considered a "direct stationary source" under the PSD program. As shown in the URBEMIS model results in **Appendix W**, Alternative E's area source emissions of regulated pollutants would be no higher than 0.40 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative E, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE E

A discussion of indoor air quality appears in **Section 4.4.2**.

The effect of Alternative E on indoor air quality is significant with regards to environmental tobacco smoke, but less-than-significant with regards to other sources. Compliance with mitigation measure listed in **Section 5.2.3** of this document will reduce adverse effects of environmental tobacco smoke to less-than-significant for Alternative E. Other mitigation measures are contained in **Section 5.2.3** to reduce the adverse effects of other sources on indoor air quality of Alternative E even further.

4.4.7 ALTERNATIVE F – LAKEVILLE CASINO

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE F

Implementation of Alternative F would result in temporary construction-related generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction phase with the highest construction-related emissions for Alternative F.. Construction of Alternative F is estimated to result in:

- 2.4 tons per year (tpy) of ROG,
- 14.5 tpy of NO_x,
- 18.7 tpy of CO,
- 1.6 tpy of PM₁₀,
- 1.6 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

A discussion of the general conformity rule and BAAQMD construction emission thresholds appears in **Section 4.4.2**. As shown in **Table 4.4-2**, ROG, NO_x, CO, and PM₁₀ construction emissions would be less than 100-tpy and would therefore result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce the fugitive dust levels from construction of Alternative F and work to prevent the temporary and intermittent impact that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE F

Impacts from Demolition

Alternative F would not result in demolition activity, so there are no impacts related to asbestos.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that Alternative F is not located in an area of NOA, thus Alternative F would have a less-than-significant impact from NOA.

OPERATIONAL IMPACTS OF ALTERNATIVE F

Operation of Alternative F would result in the generation of ROG, NO_x, PM_{2.5}, SO_x, and PM₁₀ emissions primarily from traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative F with near-term conditions. Operation of Alternative F is estimated to result in:

- 380 ppsd and 78 tpy of ROG, and
- 730 ppsd and 156 tpy of NO_x, and
- 779 ppsd and 142 tpy of PM₁₀, and
- 773 ppd and 141 tpy of PM_{2.5}, and
- 4.41 ppsd and 0.80 tpy of SO_x, emissions.

It should be noted that for the purpose of this analysis, pounds per summer day (ppsd) was used for ROG and NO_x to represent the ozone season and get a worst-case evaluation; therefore there is no simple correlation between the daily and the yearly numbers. SO_x would be less than the 100 tpy threshold and would be a less-than-significant effect. ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppd and 15 tpy thresholds, and would be a significant effect. PM_{2.5} emissions would be greater than the 100 tpy conformity threshold and would therefore be considered a significant effect. Mitigation measures contained in **Section 5.2.3** would reduce significant effects on air quality to a less-than-significant level.

General Conformity

The entire SFBAAB is marginal nonattainment for ozone and therefore has a *de minimis* threshold of tpy of ozone precursors (NO_x and VOC). Alternative F is not part of the urbanized areas of the SFBAAB that is considered a maintenance areas for CO and therefore has no conformity requirements for CO. Alternative F exceeds the *de minimis* threshold for NO_x. A Conformity Determination was conducted for NO_x to determine further requirements (see **Appendix W**). It was determined that NO_x emissions would have to be fully offset with emissions credits (effectively lowering NO_x emissions to zero) for the Proposed Project to be in conformity with the applicable SIP.

Carbon Monoxide Hot Spot Impacts of Alternative F

As shown in **Sections 4.8.7** and **5.2.7**, all of the study intersections under Alternative F would operate at, or be mitigated to, LOS D or better under 2008 conditions. Based on Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative F is not considered to have the potential to result in a significant CO air quality impact. Alternative F would have a similar parking structure as Alternative A; therefore, the impact would be the same. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE F

Alternative F itself would not contribute odors to the region. There are no existing odor generators that might impact the sensitive receptors associated with Alternative F. However, the on-site wastewater treatment plant, if not properly operated, could represent sources of odors that could represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to less than significant.

TOXIC AIR CONTAMINANTS (TACS) IMPACTS OF ALTERNATIVE F

The gaming facility under Alternative F would not itself contribute or generate toxic air contaminants. However, bus and diesel truck travel to and from the gaming facility, especially loading areas, would result in an increased concentration of diesel emissions in those areas. This increase in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE F

The Point Reyes National Seashore is the only federal Class I area within 100 kilometers of Alternative F. Analysis of operational emissions associated with Alternative F is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the PSD program. As shown in the URBEMIS model results in **Appendix W**, Alternative F's area source emissions of regulated pollutants would be no higher than 0.72 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative F, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE F

A discussion of indoor air quality appears in **Section 4.4.2**.

The effect of Alternative F on indoor air quality is significant with regards to environmental tobacco smoke, but less than significant with regards to other sources. Compliance with mitigation measure listed in **Section 5.2.3** of this document will reduce adverse effects of environmental tobacco smoke to less-than-significant for Alternative F. Other mitigation measures are contained in **Section 5.2.3** to reduce the adverse effects of other sources on indoor air quality of Alternative F even further.

4.4.8 ALTERNATIVE G – NO ACTION

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE G

Build-out of the Northwest Specific Plan (South) on the Wilfred site, as represented in Alternative G, would result in temporary construction-related generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction phase with the highest construction-related emissions for Alternative G. Construction of Alternative G is estimated to result in:

- 1.3 tons per year (tpy) of ROG,
- 7.0 tpy of NO_x,
- 7.2 tpy of CO,
- 2.9 tpy of PM₁₀,
- 2.9 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

Impacts from construction of Alternative G would be less than significant. Nonetheless, mitigation measures that would further reduce these impacts are contained in **Section 5.2.3** (including all appropriate control measures, pursuant to BAAQMD CEQA Guidelines (BAAQMD, 1999)).

ASBESTOS IMPACTS OF ALTERNATIVE G

Impacts from Demolition

Build-out of the Northwest Specific Plan (South), as represented as Alternative G, would result in the demolition of some existing structures. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Any demolition activity will be subject to the requirements of BAAQMD Regulation 11, Rule 2. Strict compliance with BAAQMD regulations will result in a less-than-significant adverse impact.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos*, (CDC/DMG, August 2000) shows that Alternative G is not located in an area of NOA, therefore a less-than-significant effect would result.

OPERATIONAL IMPACTS OF ALTERNATIVE G

Build-out of the Northwest Specific Plan (South), as represented as Alternative G, would result in the generation of ROG, NO_x, and PM₁₀ emissions primarily from increased traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative G with near-term conditions. Operation of Alternative G is estimated to result in:

- 138 ppsd and 27 tpy of ROG,
- 133 ppsd and 28 tpy of NO_x,
- 117 ppsd and 21 tpy of PM₁₀,
- 116 ppsd and 21 tpy of PM_{2.5}, and
- 0.84 ppsd and 0.14 tpy of SO_x emissions.

With near-term conditions, ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppsd and 15 tpy thresholds, and would be a significant effect. Mitigation measures contained in **Section 5.2.3** would reduce the significant effect on air quality to a less-than-significant level. PM 2.5 and SO_x emissions are less than the conformity threshold of 100 tpy and therefore would be considered to have a less-than-significant effect.

General Conformity

General conformity would not apply to Alternative G.

Carbon Monoxide Hot Spot Impacts of Alternative G

As shown in **Sections 4.8.8** and **5.2.7**, all of the study intersections under Alternative G would operate at, or be mitigated to, a LOS D or better under 2008 conditions. Based on Section 4.7.4 of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative G is considered to not have the potential to result in a significant CO air quality impact. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE G

Even though most of the operations that are known to produce odors occur in manufacturing zones, the proposed Build-out of the Northwest Specific Plan (South) has commercial operations planned and there is a potential of siting businesses at this location that may produce offensive

odors. BAAQMD permitting procedures would reduce this potential impact to less-than-significant level.

TOXIC AIR CONTAMINANTS (TAC) IMPACTS OF ALTERNATIVE G

The commercial development under Alternative G may contribute or generate toxic air contaminants. In addition, bus and diesel truck travel to and from the areas, especially loading areas, would result in an increased concentration of diesel emissions in those areas. This could result in a significant effect. However, it is important to note that all stationary sources that have the potential to emit TACs are required to obtain permits from BAAQMD. Permits may be granted to these operations if they are located, constructed, and operated in accordance with applicable regulations. Given that compliance with applicable standards is required for the development and operation of land uses that may result in the emissions of TACs, toxic air emissions from stationary sources both within and adjacent to the project area would be anticipated to be within established standards, therefore rendering the effect of this Alternative less-than-significant with regard to TACs.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE G

The Point Reyes National Seashore is the only federal Class I area within 100 kilometers of Alternative G. Analysis of operational emissions associated with Alternative G is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the PSD program. As shown in the URBEMIS model results in Appendix W, Alternative G's area source emissions of regulated pollutants would be no higher than 0.95 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative G, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE G

The City of Rohnert Park has an existing smoking ordinance (Smoking Ordinance of the City of Rohnert Park – Ord. 509 § I, 1989) that prohibits smoking in many enclosed spaces, several unenclosed spaces, and places of employment within the City of Rohnert Park. This regulation would render the effect of ETS as less than significant.

While there are no requirements for controlling other sources of indoor air pollution or existing indoor air pollution thresholds, industry standards are available for reducing the concentrations of indoor air pollution. Even though industry and professional guidelines may vary in their degree of indoor air quality protection, they are widely used and generally have helped reduce some indoor pollutants over the years. The effect of Alternative G with regards to other indoor air

quality sources is less than significant. Compliance with mitigation measure listed in **Section 5.2.3** of this document reduces the adverse effects on indoor air quality of Alternative G even further.

4.4.9 ALTERNATIVE H –REDUCED INTENSITY (WILFRED SITE)

CONSTRUCTION-RELATED IMPACTS OF ALTERNATIVE H

Implementation of Alternative H would result in temporary construction-related generation of ROG, NO_x, CO, and PM₁₀ emissions. **Table 4.4-2** presents emissions from the construction phase with the highest construction-related emissions for Alternative H. Construction of Alternative H is estimated to result in:

- 2.1 tons per year (tpy) of ROG,
- 10.8 tpy of NO_x,
- 13.7 tpy of CO,
- 2.7 tpy of PM₁₀,
- 2.7 tpy of PM_{2.5}, and
- 0.0 tpy of SO_x emissions.

Discussion on the general conformity rule and BAAQMD construction emission thresholds appears in **Section 4.4.2**. As shown in **Table 4.4-2**, ROG, NO_x, CO, SO_x, PM_{2.5}, and PM₁₀ construction emissions would be less than 100-tpy and would therefore result in a less-than-significant effect. However, mitigation measures are contained in **Section 5.2.3** that will reduce the fugitive dust levels from construction of Alternative H and work to prevent the temporary and intermittent impact that accompanies construction activities.

ASBESTOS IMPACTS OF ALTERNATIVE H

Impacts from Demolition

Implementation of Alternative H would result in the demolition of two existing structures on the Wilfred site. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Such techniques are required by federal NESHAP regulations; therefore, a less-than-significant impact.

Impacts from Naturally Occurring Asbestos (NOA)

A review of the *General Location Guide for Ultramafic Rocks in California* (DMG, 2000) shows that Alternative H is not located in an area of NOA, thus Alternative H would have a less-than-significant impact from NOA.

OPERATIONAL IMPACTS OF ALTERNATIVE H

Operation of Alternative H would result in the generation of ROG, NO_x, PM_{2.5}, SO_x, and PM₁₀ emissions primarily from traffic generated by the project (mobile sources). **Table 4.4-3** presents an estimate of these operational emissions for Alternative H with near-term conditions.

Operation of Alternative H is estimated to result in:

- 263 ppsd and 54 tpy of ROG,
- 509 ppsd and 109 tpy of NO_x,
- 545 ppsd and 99 tpy of PM₁₀,
- 541 ppsd and 98 tpy of PM_{2.5}, and
- 3 ppsd and 0.56 tpy of SO_x emissions.

SO_x would be less than the 100 tpy threshold and would be a less-than-significant effect. ROG, NO_x, and PM₁₀ emissions would be more than the 80 ppsd and 15 tpy thresholds, and would be a significant effect. PM_{2.5} emissions would be less than the 100 tpy conformity threshold and would therefore be considered to have a less-than-significant effect. Mitigation measures contained in **Section 5.2.3** would reduce significant effects on air quality to a less-than-significant level.

General Conformity

The entire SFBAAB is marginal nonattainment for ozone and therefore has a *de minimis* threshold of tpy of ozone precursors (NO_x and VOC). In addition, Alternative H is part of the urbanized areas of the SFBAAB that are considered maintenance areas for CO and therefore has a *de minimis* threshold of 100 tpy of CO. Alternative H exceeds the *de minimis* thresholds for NO_x and CO. A Conformity Determination was conducted for NO_x to determine further requirements (see **Appendix W**). It was determined that conformity requirements are met for CO emissions, warranting no further action. It was determined that NO_x emissions would have to be fully offset with emissions credits (effectively lowering NO_x emissions to zero) for the Proposed Project to be in conformity with the applicable SIP.

Carbon Monoxide Hot Spot Impacts of Alternative H

As shown in **Sections 4.8.9** and **5.2.7**, all of the study intersections under Alternative H would operate at, or be mitigated to, a LOS D or better less than 2008. Based on **Section 4.7.4** of the *Transportation Project-Level Carbon Monoxide Protocol*, Alternative H is not considered to have the potential to result in a significant CO air quality impact. Alternative H would have a similar parking structure as Alternative A; therefore, the impact would be the same. Therefore, this impact is considered less than significant.

ODOR IMPACTS OF ALTERNATIVE H

Alternative D itself would not contribute odors to the region. There are no existing odor generators that might impact the sensitive receptors associated with Alternative H. However, the on-site wastewater treatment plant, if not properly operated, could produce sources of odors that represent a potentially significant nuisance to the nearby residences. Mitigation measures are listed in **Section 5.2.3** that will reduce the adverse odor effects from the expanded wastewater treatment facilities to less than significant.

TOXIC AIR CONTAMINANTS (TACs) IMPACTS OF ALTERNATIVE H

The gaming facility under Alternative H would not itself contribute or generate toxic air contaminants. However, bus and diesel truck travel to and from the gaming facility, especially loading areas, would result in an increased concentration of diesel emissions in those areas. These increases in diesel emissions could result in a potentially significant impact of toxic air contaminants in the area. Application of mitigation measures listed in **Section 5.2.3** would reduce effects to less than significant levels.

FEDERAL CLASS I AREAS IMPACTS OF ALTERNATIVE H

The Point Reyes National Seashore is the only Federal Class I area within 100 kilometers of Alternative H. Analysis of operational emissions associated with Alternative H is broken down into mobile and area (facility) sources. Only area sources are considered a “direct stationary source” under the PSD program. As shown in the URBEMIS model results in **Appendix W**, Alternative H's area source emissions of regulated pollutants would be no higher than 0.33 tons per year (for CO), which is well below the PSD "major source" threshold (**Section 3.4**) and therefore does not trigger need for preconstruction review and further assessment of impacts. Thus, since the standards of Title 1, Part C of the federal CAA would be met by Alternative H, a less-than-significant impact to Federal Class 1 areas would result.

INDOOR AIR QUALITY OF ALTERNATIVE H

A discussion of indoor air quality impacts appears in **Section 4.4.2**.

The effect of Alternative H on indoor air quality is significant with regards to environmental tobacco smoke, but less-than-significant with regards to other sources. Compliance with mitigation measure listed in **Section 5.2.3** of this document will reduce adverse effects of environmental tobacco smoke to less-than-significant for Alternative H. Other mitigation measures are contained in **Section 5.2.3** to reduce the adverse effects of other sources on indoor air quality of Alternative H even further.