

4.4 AIR QUALITY

4.4.1 ALTERNATIVE A – PREFERRED ALTERNATIVE: CASINO, HOTEL, CONFERENCE CENTER, AND PARKING FACILITY

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to project operation. Short-term construction activities would contribute to impacts from the generation of PM₁₀ dust. Long-term operation of the proposed project would result in impacts from motor vehicle use. Motor vehicle use would contribute to O₃ (the significance of which is determined through the generation of ROG and NO_x) and CO pollution.

METHODOLOGY

Construction and vehicular emissions were estimated utilizing the URBEMIS 2002 for Windows 7.5.0 air emissions computer model (MSW, 2005). Where appropriate, traffic data generated by Whitlock & Weinberger Transportation Inc. (W-Trans) was utilized for impact analysis. Model output sheets are provided in **Appendix D**.

SIGNIFICANCE THRESHOLDS

Criteria Air Pollutants

The General Conformity Rule of the Federal Clean Air Act (CAA) (42 U.S.C. 7401), implements Section 176(c) of the Act, and establishes minimum thresholds for VOCs and NO_x (ozone precursors), CO, and other regulated constituents for nonattainment and maintenance areas.

These thresholds provide simple and direct guidance for federal agencies to ensure that they comply with approved state implementation plans (SIP). The general conformity rule includes a procedure for determining whether the rule is applicable to the actions of a federal agency. A conformity determination is required for each pollutant where the total direct and indirect emissions in a federal non-attainment or maintenance area caused by a Federal action would equal or exceed any of the rates shown in 40 CFR Section 51.853 [b][1] or [2].

These rates are used to determine the applicability of a general conformity determination, which involves specific criteria and further action, which may include additional modeling, offsets, etc. These rates can also be used as significance thresholds for NEPA projects since they pertain to conformity with state implementation plans designed to achieve and maintain local compliance with state and national ambient air quality standards. In this case, the project site is not located in a federally designated non-attainment or maintenance area; therefore, the project is in compliance with the General Conformity Rule.

ANTICIPATED AIR QUALITY IMPACTS**Construction Emissions**

Implementation of the Proposed Action would generate criteria air pollutants through the use of construction equipment (primarily diesel-operated), construction worker automobiles (primarily gasoline-operated), and physical land disturbance. Construction typically proceeds in distinct phases. These phases include site grading and re-contouring, erection of structures, and finishing of structures.

Site grading emissions were modeled using URBEMIS 2002. The results, assuming mitigation measures are implemented, are summarized in **Table 4-2**. Modeling assumed grading and recontouring for the proposed project and a typical contingent of construction equipment; 15 acres of total land disturbance were assumed, with standard mitigation measures implemented. For a description of standard mitigation measures included in the site grading and building construction phases, refer to **Section 5.2.3**.

TABLE 4-2
ESTIMATED SITE GRADING CONSTRUCTION EMISSIONS (PROPOSED PROJECT)

| Pollutant | Estimated Total Emissions |
|------------------------------|----------------------------------|
| ROG (tons/year) | 0.3 |
| NO _x (tons/year) | 2.4 |
| CO (tons/year) | 2.1 |
| PM ₁₀ (tons/year) | 0.1 |
| SO _x (tons/year) | 0.0 |

SOURCE: URBEMIS 2002; MSW, 2005.

Based on the estimates summarized in **Table 4-2**, emission totals during the site-grading phase would have a less-than-significance effect on local air quality. Building construction phase emissions were modeled using URBEMIS 2002. The results, assuming mitigation measures are implemented, are summarized in **Table 4-3**.

TABLE 4-3
ESTIMATED BUILDING CONSTRUCTION EMISSIONS (PROPOSED PROJECT)

| Pollutant | Estimated Total Emissions |
|------------------------------|----------------------------------|
| ROG (tons/year) | 3.3 |
| NO _x (tons/year) | 8.1 |
| CO (tons/year) | 8.7 |
| PM ₁₀ (tons/year) | 0.3 |
| SO _x (tons/year) | 0.0 |

SOURCE: URBEMIS 2002; MSW, 2005.

Based on the estimates summarized in **Table 4-3**, emission totals during the building construction phase would have a less than significant effect on local air quality.

Operational Emissions

Vehicular and Area Source Emissions

Operational emissions would primarily be comprised of exhaust gases associated with visitor motor vehicle use. Area source emissions would be minimized due to the fact that the casino would not operate fireplaces or wood stoves. No direct criteria air pollutant emissions would be attributed to the project, with the possible exception of minor emissions from natural gas space heaters or water heating devices. Based on casino trip generation estimates prepared by W-Trans and using the URBEMIS 2002 computer model, operation emissions were estimated assuming default trip length, average trip speeds, and a standard vehicle fleet mix. **Table 4-4** summarizes the net operational emissions resulting from the Proposed Project in place of the existing casino.

TABLE 4-4
ESTIMATED OPERATIONAL EMISSIONS (PROPOSED PROJECT)¹

| Pollutant | Estimated Emissions | | | | | |
|------------------|---------------------|---------|------|-------------------------|---------|-----|
| | Tons/Year | | | Pounds/Day ² | | |
| | Future | Current | Net | Future | Current | Net |
| ROG | 13.6 | 4.3 | 9.3 | 60 | 19 | 41 |
| NO _x | 23.2 | 8.5 | 14.7 | 120 | 44 | 76 |
| CO | 146.4 | 52.9 | 93.5 | 895 | 322 | 573 |
| PM ₁₀ | 17.3 | 6.4 | 10.9 | 95 | 35 | 60 |
| SO _x | 0.1 | 0.0 | 0.1 | 0 | 0 | 0 |

NOTES:

¹ These emissions are virtually entirely attributable to motor vehicle trips associated with the proposed project. Results were generated for year 2007.

² ROG and NO_x estimates are for summertime conditions. CO estimates are for wintertime conditions. PM₁₀ and SO_x estimates are for either summertime or wintertime conditions.

SOURCE: URBEMIS 2002; MSW 2005.

Toxic Air Contaminants

Toxic air contaminants are less pervasive in the urban atmosphere than the criteria air pollutants, but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

Toxic air contaminants have been regulated under federal air quality law since the 1977 Federal Clean Air Act Amendments. The most recent Federal Clean Air Act Amendments (1990) reflect a technology-based approach for reducing toxic air contaminants. The first phase involves requiring facilities to install Maximum Achievable Control Technology (MACT). The MACT standards vary depending on the type of emitting source. U.S. EPA has established MACT standards for over 20 facilities or activities, such as perchloroethylene dry cleaning and petroleum refineries. The second phase of control involves determining the residual health risk represented by air toxics emissions sources after implementation of MACT standards.

The regulatory approach differs between stationary sources and mobile sources of toxic air contaminants. The approach to regulation of toxic air contaminants from mobile sources has been through establishment (by U.S. EPA and the state Air Resources Board) of emissions standards for motor vehicles (imposed on vehicle manufacturers) and through specifications for gasoline and diesel fuel sold in California (imposed on fuel refineries and retailers), rather than through air quality permits or regulations on how motor vehicles are used by the general public.

Possible future commercial or industrial development could affect the proposed gaming facility by creating air toxics. However, because of the project area's rural character and relevant land use regulations, it is unlikely that toxic air contaminant emitting sources would locate near the project site. Any future facilities in the area would be required to meet federal, state, and local standards associated with the handling of hazardous materials, and therefore no impacts to the proposed project are anticipated.

Emergency generators are planned for the casino and hotel/conference center facility. However, the impact of air emissions from the diesel or gasoline powered generators would be less than significant due to very limited use.

General Conformity Analysis

The General Conformity Rule, which implements Section 176(c) of the CAA, was designed to ensure that federal actions do not impede local efforts to control air pollution. It is called a conformity rule because federal agencies are required to demonstrate that their actions "conform with" (i.e., do not undermine) the approved State Implementation Plan (SIP) for their geographic area. Federal agencies make this demonstration by performing a conformity review to evaluate and document project-related air pollutant emissions, local air quality impacts and the potential need for emission mitigation. The emitting activity in this case would be automobile and bus trips to the proposed gaming facility and hotel/conference center. The General Conformity Rule applies to those actions of a federal agency that the agency has and will continue to maintain some authority to control. The BIA has no ongoing regulatory authority over patrons traveling to and from the casino and hotel/conference center. Additionally, since the site is not located within a non-attainment or maintenance area, a conformity determination is not applicable pursuant to the CAA General Conformity Rule (40 CFR Section 51.853 [b][1] and [2]).

Level of Impact Summary

As noted above, according to the CAA General Conformity Rule, the proposed action would conform to the SIP. The proposed project would not be subject to local air quality regulations; however, if it were, it would not be large enough to trigger permit requirements. In addition, the proposed action would not meet the criteria to be regulated under the local governing authority. The local air district is the North Coast Unified Air Quality Management District (NCUAQMD).

A review of NCUAQMD regulations, specifically Rule 103(i1) shows that the project does not meet the threshold definition of an indirect source. Rule 103 defines an indirect source as “*a facility or building, which is responsible for the generation of at least 20,000 vehicle trips per day or introduces at least 1,000 new parking spaces.*”

The proposed project will not introduce a net increase of more than 1,000 parking spaces. The Tribe’s existing gaming facility has 300 parking spaces, which will be closed at the opening of the new facility. The new facility will introduce a total of 1,250 parking spaces for a total net gain of 950 new parking spaces. Additionally, daily trip generation is estimated at approximately 3,500, far below the 20,000-trip threshold (**Appendix C**).

A significant impact would result if the operation of a proposed action were not consistent with a SIP or substantially impairs local air quality. In this case the emission of particulate matter in the form of dust would be reduced to less than significant levels during construction through implementation of the mitigation measures indicated in **Section 5**. The project will not inhibit local efforts to meet applicable air quality standards. Overall, the primary sources of air pollution resulting from the project would be CO in the form of vehicle emissions, which increases where there is traffic congestion. Mitigation has been incorporated into the project that would reduce delays and congestion and thus reduce potential impacts to less than significant levels. The area is designated either “attainment” or “unclassified/attainment” for both State Ambient Air Quality Standards (SAAQS) and National Ambient Air Quality Standards (NAAQS) for CO.

Due to the high quality of the north coast air basin, low population and development densities, relatively high precipitation rates, and frequent breezes traveling inland from the ocean, the North Coast Air Basin is likely to remain well within attainment for the foreseeable future. Mitigation has been incorporated into the project that would reduce delays and congestion and thus reduce potential impacts to less than significant levels. Mitigation measures are discussed in **Section 5.2.3**.

4.4.2 ALTERNATIVE B – GOLF COURSE, HOTEL, CONFERENCE CENTER, AND PARKING FACILITY (NON-GAMING ALTERNATIVE)

Overall, potential impacts to air quality from the Non-Gaming Alternative would be lower than those of Alternative C. Construction-related impacts would be similar to those of Alternative C due to the relative size of land disturbance of both alternatives. Operational air quality emissions would be reduced considerably with the removal of gaming, due to the reduction in motor vehicle trips and associated CO impacts.

ANTICIPATED AIR QUALITY IMPACTS

Construction Emissions

Implementation of the Non-Gaming Alternative would generate similar criteria air pollutants through the use of construction machinery (primarily diesel-operated), construction worker automobiles (primarily gasoline-operated), and physical land disturbance. Based on the emissions estimates for Alternative C, which includes both the golf course and the casino, emission totals would have a less than significant effect on local air quality. The mitigation measures for project construction described in **Section 5.0** would reduce potential impacts.

Operational Emissions

Vehicular and Area Source Emissions

Operational emissions would be comprised of indirect vehicular emissions associated with the hotel/convention center and golf course. Alternative B would generate approximately 1,535 trips per day. No direct criteria air pollutant emissions can be attributed to these facilities. Based on the estimates summarized for Alternative C, emission totals would have a less than significant effect on local air quality. Using Alternative C data provides a conservative estimate, as there are fewer trips per day under Alternative B. No mitigation measures would be necessary.

Toxic Air Contaminants

As with Alternative C, the Non-Gaming Alternative would not generate toxic air contaminants. The site is also relatively far from existing facilities in the area known to handle, store, and use bulk quantities of hazardous materials. Under normal operating conditions, emissions from these facilities would not pose a health risk to employees or patrons of the hotel/convention center or patrons of the golf course.

General Conformity Determination

Under the Non-Gaming Alternative, the primary sources of air pollution resulting from Alternative C (vehicles) would be substantially reduced. These emissions would not be subject to continuing federal authority. As with the Proposed Action, a conformity determination would not be required pursuant to the CAA General Conformity Rule (40 CFR Section 51.853 [b][1]).

4.4.3 ALTERNATIVE C – CASINO, HOTEL, CONFERENCE CENTER, GOLF COURSE, AND PARKING FACILITY

Overall, potential impacts to air quality from Alternative C would be greater than for the Proposed Action. Construction-related impacts would be similar to those of Alternative B due to the relative size of land disturbance of both alternatives.

ANTICIPATED AIR QUALITY IMPACTS**Construction Emissions**

Implementation of Alternative C would generate more criteria air pollutants through the use of construction machinery (primarily diesel-operated), construction worker automobiles (primarily gasoline-operated), and physical land disturbance since grading for the golf course would occur. Construction typically proceeds in distinct phases. These phases include site grading and re-contouring, erection of structures, and finishing of structures.

Site grading emissions were modeled using URBEMIS 2002. The results, assuming mitigated measures are implemented, are summarized in **Table 4-5**. Modeling assumed grading and recontouring for the proposed project and a typical contingent of construction equipment. 103 acres of total land disturbance were assumed, with standard mitigation measures implemented. For a description of standard mitigation measures included in the site grading and building construction phases, refer to **Section 5.2.3**.

TABLE 4-5
ESTIMATED SITE GRADING CONSTRUCTION EMISSIONS (Alternative C)

| Pollutant | Estimated Total Emissions |
|------------------------------|----------------------------------|
| ROG (tons/year) | 0.7 |
| NO _x (tons/year) | 5.4 |
| CO (tons/year) | 4.9 |
| PM ₁₀ (tons/year) | 0.4 |
| SO _x (tons/year) | 0.2 |

SOURCE: URBEMIS 2002; MSW, 2005.

Based on the estimates summarized in **Table 4-5**, emission totals during the site-grading phase would have a less than significant effect on local air quality. Building construction phase emissions were modeled using URBEMIS 2002. The results, assuming mitigation measures are implemented, are summarized in **Table 4-6**.

TABLE 4-6
ESTIMATED BUILDING CONSTRUCTION EMISSIONS (Alternative C)

| Pollutant | Estimated Total Emissions |
|------------------------------|----------------------------------|
| ROG (tons/year) | 3.3 |
| NO _x (tons/year) | 7.9 |
| CO (tons/year) | 8.4 |
| PM ₁₀ (tons/year) | 0.3 |
| SO _x (tons/year) | 0.0 |

SOURCE: URBEMIS 2002; MSW, 2005.

Operational Emissions**Vehicular and Area Source Emissions**

Operational emissions would primarily be comprised of exhaust gases associated with visitor motor vehicle use. Alternative C would generate approximately 4,085 trips per day. Area source emissions would be minimized due to the fact that the casino would not operate fireplaces or

wood stoves. No direct criteria air pollutant emissions would be attributed to the project, with the possible exception of minor emissions from natural gas space heaters or water heating devices. Based on casino trip generation estimates prepared by W-Trans and using the URBEMIS 2002 computer model, operation emissions were estimated assuming default trip length, average trip speeds, and a standard vehicle fleet mix. **Table 4-7** summarizes net operational emissions resulting from the proposed project in place of the existing casino.

TABLE 4-7
ESTIMATED OPERATIONAL EMISSIONS (Alternative C)¹

| Pollutant | Estimated Emissions | | | | | |
|------------------|---------------------|---------|-------|-------------------------|---------|-----|
| | Tons/Year | | | Pounds/Day ² | | |
| | Future | Current | Net | Future | Current | Net |
| ROG | 16.3 | 4.3 | 12.0 | 71 | 19 | 48 |
| NO _x | 28.0 | 8.5 | 19.5 | 144 | 44 | 100 |
| CO | 176.8 | 52.9 | 123.9 | 913 | 322 | 591 |
| PM ₁₀ | 21.0 | 6.4 | 14.6 | 115 | 35 | 80 |
| SO _x | 0.1 | 0.0 | 0.1 | 1 | 0 | 1 |

NOTES:

¹ These emissions are virtually entirely attributable to motor vehicle trips associated with the proposed project. Results were generated for year 2007.

² ROG and NO_x estimates are for summertime conditions. CO estimates are for wintertime conditions. PM₁₀ and SO_x estimates are for either summertime or wintertime conditions.

SOURCE: URBEMIS 2002; MSW 2005.

Toxic Air Contaminants

As with the Proposed Action, Alternative C would not generate significant toxic air contaminants. The site is relatively far from existing facilities in the area known to handle, store, and use bulk quantities of hazardous materials. Under normal operating conditions, emissions from these facilities would not pose a health risk to employees or patrons of the hotel/convention center or patrons of the casino.

General Conformity Determination

Under Alternative C, the primary sources of air pollution (lawn-mowing equipment and vehicles) would emit pollutants at levels similar to those of Alternative B. These emissions would not be subject to continuing federal authority. As with the Proposed Action, a conformity determination would not be required pursuant to the CAA General Conformity Rule (40 CFR Section 51.853 [b][1]).

4.4.4 ALTERNATIVE D – ENDERTS BEACH DEVELOPMENT

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to project operation. Short-term construction activities would primarily result in the generation of PM₁₀ containing fugitive dust. Long-term operation of the project would result in motor vehicle use. Alternative D would generate approximately 3,442

trips per day. Motor vehicle use would contribute to O₃ (the significance of which is determined through the generation of ROG and NO_x) and CO pollution.

Potential impacts to air quality would be similar in nature to those impacts described for the Proposed Action, due to the construction of identical facilities. Assuming incorporation of the mitigation measures described in **Section 5.0**, potential impacts to air quality would be less than significant.

4.4.5 ALTERNATIVE E – NO ACTION

Under the No-Action Alternative, all sites would remain undeveloped for an unknown period of time and none of the air quality impacts identified for the Proposed Action or other alternatives would occur. The Tribe's properties could be developed in the foreseeable future for various purposes under county land use regulations. Depending upon the land use, each property could ultimately be a source of both direct (stationary source) and indirect (mobile source) criteria air pollutants, toxic air contaminants, and/or odors. However, no assumptions are made regarding future development under the No-Action Alternative.