

Technical Support Document for 2008 Ozone NAAQS Designations

**California
Area Designations for the
2008 Ozone National Ambient Air Quality Standards**

Technical Analysis for Morongo Band of Mission Indians (Morongo nonattainment area)

Figure 1 is a map of the Morongo Band of Missions Indians nonattainment area (Morongo nonattainment area). The map provides other relevant information including the location and design value of the air quality monitor on the Morongo Band of Mission Indian's (Morongo's) Indian country, county boundaries, and indicates EPA's nonattainment designation.

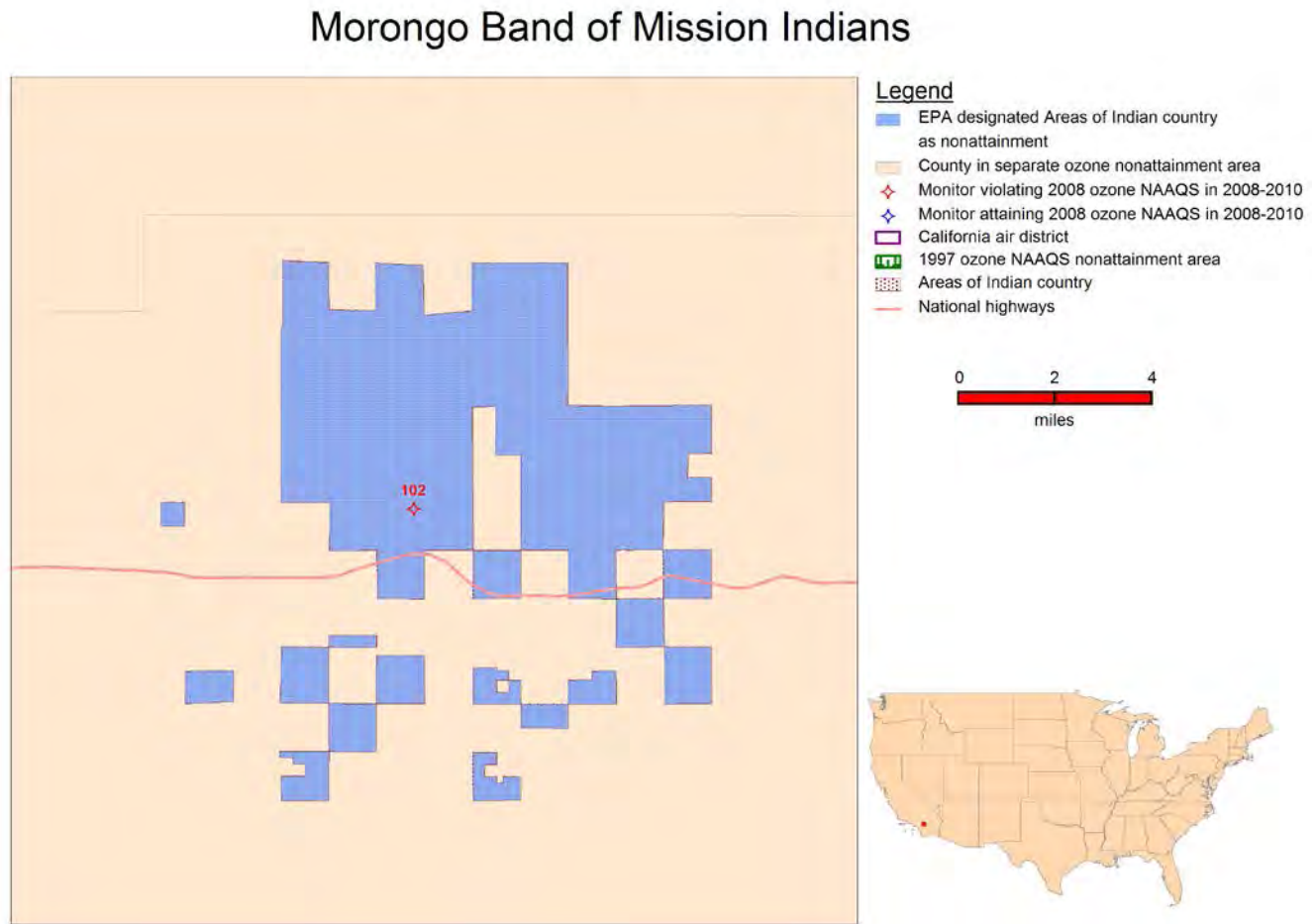
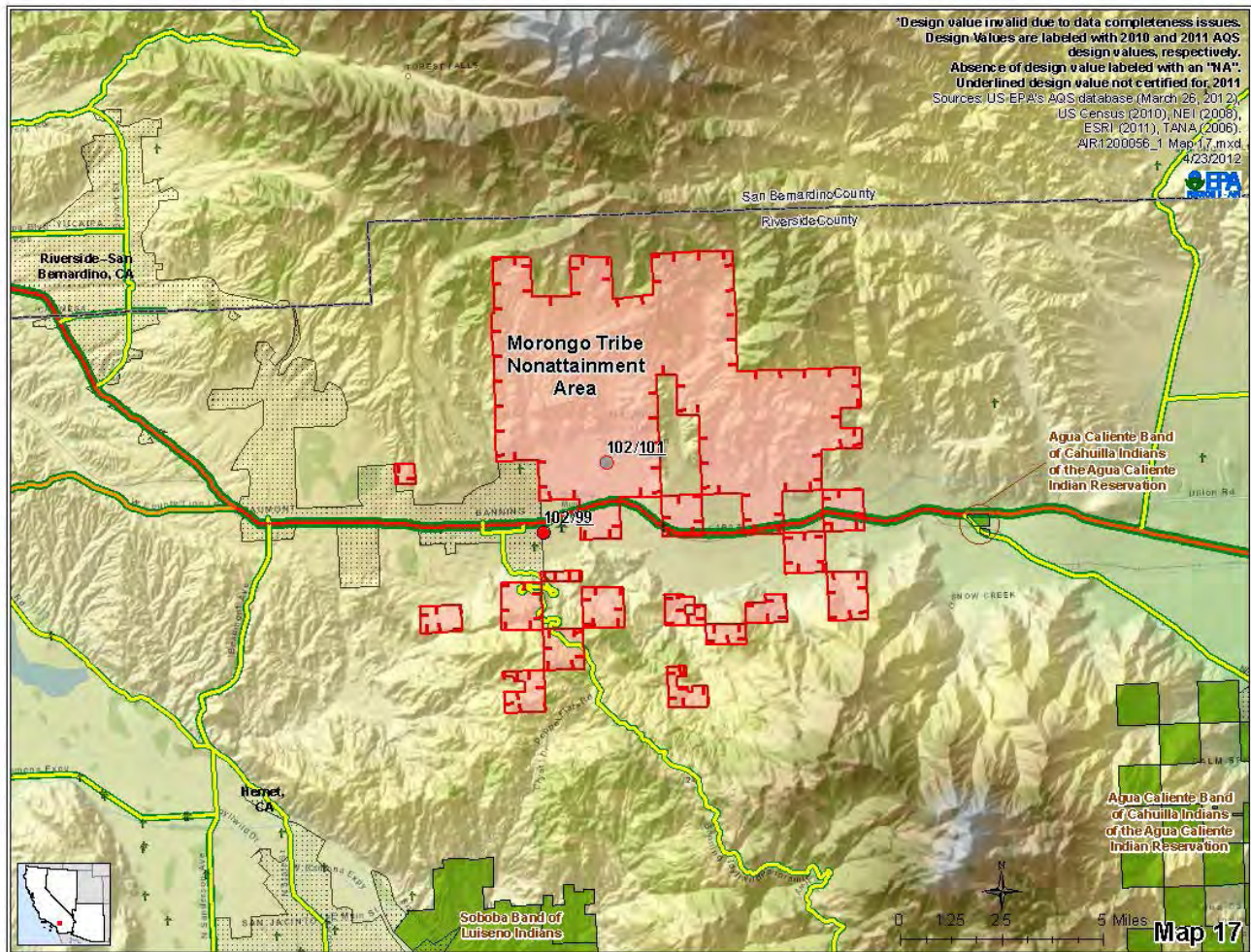


Figure 1

The Morongo Band of Mission Indians (Morongo) is a federally recognized tribe whose Indian country is located in the western portion of the Riverside-San Bernardino-Ontario, CA metropolitan area. Map 17 in Appendix 1, and included below, shows the location of the areas of Indian country in more detail.



From Appendix 1, Map 17: For map legend describing monitors, emissions, traffic, population, and boundaries, see Appendix 1.

Morongo’s areas of Indian country are located in an area known as Banning Pass, which is an elevated mountain pass connecting the South Coast Air Basin to the Coachella Valley portion of the Salton Sea Air Basin. The Banning Pass (also known as the San Gorgonio Pass) is one of the three major routes by which air pollutants are transported out of the Los Angeles metropolitan area (which lies within the South Coast Air Basin). Banning Pass runs in an east-west direction for about 15 miles and is about 5 miles wide. The pass starts west of Beaumont at an elevation of about 2,200 feet and reaches a maximum elevation of around 2,600 feet in the city of Beaumont, then drops to an elevation of near 1,400 feet between Cabazon and White Water. The San Bernardino Mountains are on the north side of the pass and the San Jacinto Mountains are on the south side. The San Bernardino Mountains reach a maximum elevation of approximately 11,500 feet at the top of San Gorgonio Mountain and the San Jacinto Mountains reach a maximum elevation of approximately 10,800 feet at Mt. San Jacinto.

In 2004, EPA established the Los Angeles-South Coast Air Basin nonattainment area boundaries for the 1997 ozone NAAQS that included the entirety of Orange County, the southwestern portion of Los Angeles County, the southwest portion of San Bernardino County, and the western portion of Riverside County (see Map 6 in Appendix 1); this area includes Morongo's Indian country. In 2004, EPA also established the Riverside County (Coachella Valley) nonattainment area for the 1997 ozone NAAQS which is to the east of and adjacent to the Los Angeles-South Coast Air Basin.

As explained in the following paragraphs, while originally included within the Los Angeles-South Coast Air Basin nonattainment area for the 1997 ozone standard, Morongo's areas of Indian country are now classified differently than the rest of the South Coast for that standard. See 40 CFR 81.305.

For the original photochemical oxidant standard, and later the 1-hour ozone standard, EPA included Morongo's areas of Indian country within the Southeast Desert Air Quality Maintenance Area (AQMA), later referred to as the Southeast Desert Modified AQMA ("Southeast Desert"). See 43 FR 8962 (March 3, 1978). The Southeast Desert included the Coachella Valley portion of Riverside County, as well as Antelope Valley in Los Angeles County, and a portion of San Bernardino County. Under the 1990 CAA Amendments, Morongo's areas of Indian country were classified, along with the rest of the Southeast Desert, as "severe-17" for the 1-hour ozone standard. See 56 FR 56694, at 58729 (November 6, 1991). In 2003, EPA approved a boundary change request submitted by California that shifted the boundary between the South Coast Air Basin and the Southeast Desert in the Banning Pass area approximately 18 miles to the west. See 68 FR 57820 (October 7, 2003). In effect, the 2003 boundary change shifted Morongo's Indian country from the Southeast Desert, which was classified as "severe-17," to the South Coast Air Basin, which was classified as "extreme" for the 1-hour ozone standard. Morongo has requested that EPA correct the Agency's 2003 boundary change action with respect to their lands because, among other reasons, the Tribe was never consulted during EPA's rulemaking process concerning the boundary change.

In 2004, EPA designated areas for the 1997 ozone standard and, consistent with the 2003 boundary change, included Morongo's areas of Indian country in the South Coast Air Basin, which was classified as "severe-17" for the 1997 ozone standard. See 69 FR 23858 (April 30, 2004). Although the 1-hour ozone standard was revoked in 2005, certain control requirements linked to the "extreme" classification continue to apply within Morongo's areas of Indian country under EPA's anti-backsliding requirements governing the transition from the now-revoked 1-hour ozone standard to the 8-hour ozone standard. See 40 CFR 51.905(a)(1)(i).

In 2007, California requested a voluntary "bump-up" for the South Coast from "severe-17" to "extreme" for the 1997 ozone standard. In 2010, EPA approved California's "bump-up" request but deferred reclassification of two tribes' areas of Indian country within the South Coast, one of which was Morongo's Indian country. See 75 FR 24409 (May 5, 2010). Thus, Morongo's Indian country currently has a "severe-17" ozone nonattainment classification for the 1997 ozone standard and lies adjacent to the South Coast Air Basin on the west, which is classified as "extreme," and Coachella Valley on the east, which is classified as "severe-15," for the 1997 ozone standard.

In May 2009, Morongo recommended that their Indian country, as described above, be designated as "nonattainment" for the 2008 ozone NAAQS and as a separate nonattainment area, or that it be designated as "nonattainment" as part of the Coachella nonattainment area for the 2008 ozone NAAQS. (Letter from Robert Martin, Chairman, Morongo Band of Mission Indians, to Deborah Jordan, Director, U.S. EPA

Region IX Air Division, May 29, 2009.) In June 2009, Morongo requested to be its own nonattainment area. (Letter from Robert Martin, Chairman, Morongo Band of Mission Indians, to Deborah Jordan, Director, U.S. EPA Region IX Air Division, June 18, 2009.) In April 2012, in response to EPA’s 120-day letter indicating our intention to designate Morongo’s Indian country as part of the Los Angeles-South Coast, CA nonattainment area, Morongo reiterated its request that their Indian country be designated nonattainment and as a separate area. (Letter from Jeff R. Keohane, Forman & Associates, on behalf of the Morongo Band of Mission Indians, to Jared Blumenfeld, Regional Administrator, U.S. EPA Region IX, received April 9, 2012 and dated February 27, 2012.)

Pursuant to section 107(d) of the Clean Air Act, EPA must designate as “nonattainment” those areas that violate the NAAQS and those areas that contribute to violations. EPA has evaluated the multi-factor analysis provided as part of Morongo’s May 2009 recommendation, Morongo’s June 2009 and April 2012 correspondences, and additional available information as described in this Technical Analysis. EPA’s assessment also considers EPA’s December 20, 2011 “Policy for Establishing Separate Air Quality Designations for Areas of Indian country” (Tribal Policy)¹.

After considering these recommendations and based on EPA's technical analysis described below, EPA is designating the Indian country of the Morongo Band of Mission Indians as a separate nonattainment area for the 2008 ozone NAAQS.

Table 1. Tribe’s Recommended and EPA’s 2008 ozone NAAQS Nonattainment Designation

Tribe-Recommended Nonattainment Areas of Indian country	EPA’s Nonattainment Areas of Indian country
Morongo Band of Mission Indians	Morongo Band of Mission Indians

Factor Assessment

Factor 1: Air Quality Data

For this factor, we considered 8-hour ozone design values for air quality monitors in and near Morongo’s Indian country, based on data from the 2008-2010 period (the 2010 design value, or DV), which are the most recent years with fully-certified air quality data. A monitor’s DV is the metric or statistic that indicates whether that monitor attains a specified air quality standard. The 2008 ozone NAAQS are met at a monitor when the annual fourth-highest daily maximum 8-hour average concentration, averaged over 3 years, is 0.075 parts per million (ppm) (or 75 parts per billion (ppb)) or less. A DV is only valid if minimum data completeness criteria are met. See 40 CFR part 50 Appendix P. Where several monitors are located in a county or area (or a designated nonattainment area or maintenance area), the DV for the county or area is determined by the monitor with the highest level.

Currently, Morongo operates one ozone monitor on its lands (monitor TT58210161; see Appendix 3). Map 17 in Appendix 1 shows the geographic distribution of monitors near Morongo’s Indian country. For each monitor, Appendix 1 lists the monitor, the 2008-2010 DV (certified and quality assured in AQS) and the 2009-2011 DV (data that are not yet certified and quality assured in AQS are underlined).

¹ <http://www.epa.gov/ttn/oarpg/t1/memoranda/20120117indiancountry.pdf>

The TT58210161 ozone monitor operated on Morongo's lands has a 2008-2010 8-hour ozone design value of 0.102 ppm. Monitors that are eligible for providing design value data include monitors that are sited in accordance with 40 CFR Part 58, Appendix D (Section 4.1), are federal reference method (FRM) or federal equivalent method (FEM) monitors, and meet the requirements of 40 CFR part 58, Appendix A. The Morongo monitor did not meet all quality assurance/quality control requirements of 40 CFR Part 58 during this time period. A monitor (Banning, 060650012) operated by South Coast Air Quality Management District that is appropriate for comparison to the NAAQS and use as a regulatory monitor is within two miles of the Morongo monitor and has historically compared well with the Morongo monitor. The daily maximum 8-hour ozone values for the Morongo monitor and the Banning monitor track closely over the high ozone months of May through September, over the data years 2008, 2009, and 2010. The Banning monitor has a 2008-2010 8-hour ozone design value of 0.102 ppm, identical to the Morongo monitor's 2008-2010 design value. Therefore, EPA has determined that the Banning monitor is representative of air quality in Morongo's areas of Indian country, and the Banning monitor is considered the design value monitor for the purpose of this designation. Both of these monitors have data showing violations of the 2008 ozone NAAQS, at a level that corresponds with a "serious" classification.

Reflecting the transitional nature of the Banning Pass area, the 8-hour ozone design value at Morongo's areas of Indian country (0.102 ppm) contrasts with the higher design value of the South Coast Air Basin to the west (0.112 ppm) and the lower design value of the Coachella Valley to the east (0.095 ppm).

Factor 2: Emissions and Emissions-Related Data

Morongo's areas of Indian country encompass approximately 35,000 acres, and over 1,500 tribal members live on these lands. Morongo has sources of ozone precursor emissions within the tribal boundaries, which include the Morongo Casino Resort and Spa cogeneration facility (which has a Title V operating permit which limits the 8.4 megawatt facility's potential to emit from the four natural gas-fired engines and three diesel-fired backup generators to less than 18.7 tpy for NO_x emissions and less than 18.7 tpy for VOC emissions²), local traffic (including travel to and from the resort), the Morongo Travel Center, and rail traffic. A busy interstate highway, I-10, also passes through the Morongo lands. In contrast, ozone precursor emissions from the adjacent Los Angeles-South Coast Air Basin nonattainment area exceed 400,000 tpy of NO_x and over 200,000 tpy of VOC, with a total population of approximately 17 million people. See Technical Analysis for Los Angeles-South Coast Air Basin. To the east, ozone precursor emissions from the adjacent Riverside County (Coachella Valley) nonattainment area exceed 50,000 tpy of NO_x and 28,000 tpy of VOC, with a population of over 2 million people. See Technical Analysis for Riverside County (Coachella Valley).

Factor 3: Meteorology (weather/transport patterns)

EPA evaluated available meteorological data to help determine how meteorological conditions, such as weather, transport patterns and stagnation conditions, would affect the fate and transport of precursor emissions contributing to ozone formation.

² Title V Permit to Operate and Statement of Basis issued by EPA Region IX to the Morongo Casino Cogeneration Facility, September 29, 2010.

Morongo’s areas of Indian country are located in the Banning Pass. Under most meteorological conditions, air from the coastal plain to the west is funneled through Banning Pass to the desert area to the east. As a mountain pass area, the meteorology is dissimilar from that of either the coastal plain to the west or the desert area to the east. The winds are more frequent and stronger, with a more westerly component, than those in most of the coastal plain, and the temperatures vary more than in most of the coastal plain but not as much as in the desert area to the east.³ Thus, in some ways, the Banning Pass is transitional between the coastal and desert areas and in other ways, as a mountain pass, the Banning Pass is simply unlike either area to the west or east.

The meteorological and ozone data for 2006-2009, provided by the Morongo Band of Mission Indians and presented below, indicates the elevated levels of ozone are associated with westerly flow.

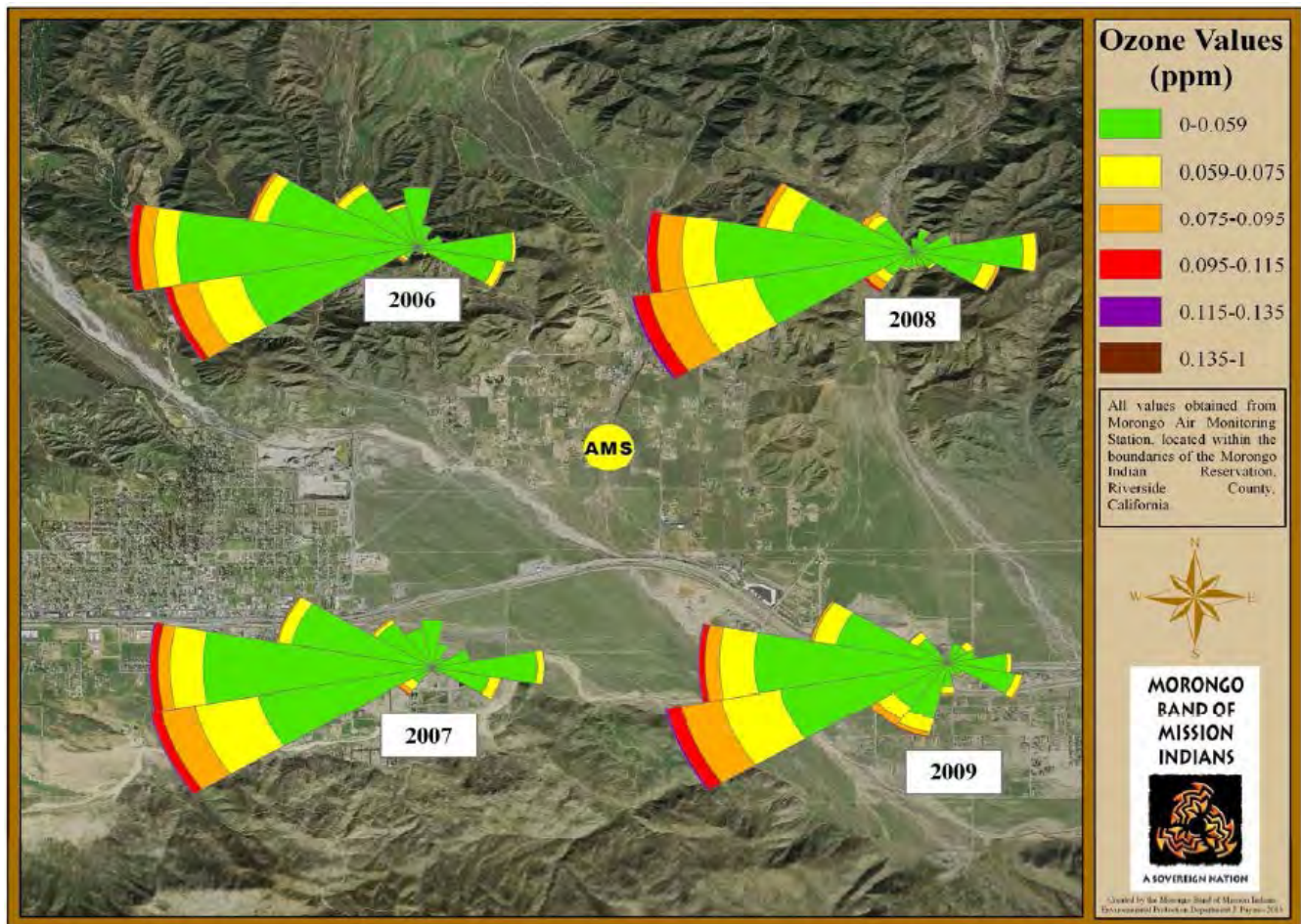


Figure 1: Meteorological and ozone data for 2006-2009.

Factor 4: Geography/topography (mountain ranges or other air basin boundaries)

The geography/topography analysis evaluates the physical features of the land that might affect the

³ Meteorological information for the Morongo Reservation is from *2005-2009 Weather and Air Quality Summary*, prepared by the Morongo Band of Mission Indians, Environmental Protection Department, Tribal Air Program, August 2010.

airshed and, therefore, the distribution of ozone over the area. Morongo's geographic location is shown in Appendix 1, Map 17.

As noted previously, Morongo's areas of Indian country are located in the Banning Pass. The topographical characteristics of the Banning Pass create very different climatic conditions than found in the coastal plain to the west or the desert area to the east, such as persistently strong westerly air flow that is compressed and channeled by the elevated land mass of the Pass itself and the steep mountain peaks to the north and south.

Factor 5: Jurisdictional boundaries

For each potential nonattainment area, we considered existing jurisdictional boundaries to provide a clearly defined boundary and to help identify the areas appropriate for carrying out the air quality planning and enforcement functions for nonattainment areas. Examples of jurisdictional boundaries include existing/prior nonattainment area boundaries for ozone or other urban-scale pollutants, county lines, air district boundaries, township boundaries, areas covered by a metropolitan planning organization, state lines, Indian country boundaries, and urban growth boundary. Where existing jurisdictional boundaries were not adequate or appropriate to describe the nonattainment area, other clearly defined and permanent landmarks or geographic coordinates are considered.

As defined at 18 U.S.C. 1151, "Indian country" refers to: "(a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same." EPA recognizes the sovereignty of tribal governments, and has attempted to take the desires of Morongo into account in establishing an appropriate nonattainment area boundary for the tribe.

Morongo is a federally recognized tribe located in the western portion of the Riverside-San Bernardino-Ontario metropolitan area. Map 17a in Appendix 2 shows the location of the areas of Indian country. As noted above, Morongo has requested to be designated as a separate nonattainment area and, as also explained earlier in this Technical Analysis, Morongo's areas of Indian country are now classified differently than the rest of the South Coast for the 1997 ozone standard.

EPA's assessment of the jurisdictional factor also considers EPA's December 20, 2011 "Policy for Establishing Separate Air Quality Designations for Areas of Indian country" (Tribal Policy)⁴. The policy stresses the importance of recognizing tribal sovereignty and the jurisdictional status of Indian country in the decision-making process. It also articulates circumstances under which the jurisdictional boundaries factor could bear the most weight when evaluating a tribe's multi-factor analysis.

The policy states that it may be appropriate to apply the most weight to the jurisdiction factor in a situation where a Tribe recommends being designated as a separate nonattainment area from an adjacent nonattainment area when an analysis of the factors indicates that there are no sources in Indian country

⁴ <http://www.epa.gov/ttn/oarpg/t1/memoranda/20120117indiancountry.pdf>

contributing to nonattainment in the adjacent area. Although Morongo's areas of Indian country do contain stationary and mobile sources of ozone precursors, the magnitude of ozone precursor emissions is very small compared to emissions from the adjacent Los Angeles-South Coast Air Basin and Coachella Valley nonattainment areas. Because the analysis of factors does not conclusively indicate that the sources located in Morongo's areas of Indian country contribute to nonattainment in the surrounding area, EPA believes that per the Tribal Policy, the jurisdictional factor should bear the most weight in the decision-making process for designating Morongo's Indian country.

Conclusion

In 2009 and again in 2012, the Morongo requested that its Indian country be designated as a separate nonattainment area for the 2008 ozone NAAQS. Based on the information currently available and the five factor analysis above, EPA is designating Morongo as a separate nonattainment area for the 2008 8-hour ozone standard, as the Morongo Band of Mission Indians nonattainment area.

Air quality data, meteorology and topography indicate that Morongo's areas of Indian country experience transitional conditions characteristic of a mountain pass area through which pollutants are channeled from a highly urbanized metropolitan nonattainment area to the west to the relatively less developed nonattainment area to the east. As such, taking into consideration the three factors of air quality data, meteorology, and topography, EPA could reasonably include the Morongo areas of Indian country in either the nonattainment area to the west, or the nonattainment area to the east as EPA has done in the past originally for the 1-hour ozone standard and more recently for the 1997 8-hour ozone standard, or the Agency could establish a separate nonattainment area for Morongo lands. However, taking into account the minimal amount of emissions associated with activities on the Morongo lands of Indian country and corresponding minimal contribution to regional ozone violations, we conclude that assigning greater weight to the jurisdictional factor is appropriate in this instance under EPA's Tribal Designations Policy. Under the jurisdictional factor, we find that designating Morongo's areas of Indian country as a separate ozone nonattainment area for the 2008 ozone standard to be appropriate in light of the Morongo's request for such an area and in light of the difference in classification of the Morongo lands with respect to either the Los Angeles-South Coast Air Basin or Riverside County (Coachella Valley) for the 1997 ozone standard.