

23.0 Technical Analysis for the Pechanga Band of Luiseno Mission Indians, CA

This technical analysis identifies the area with a monitor that violates the 2015 ozone NAAQS. It also provides the EPA's evaluation of this area and nearby areas to determine whether those nearby areas have emissions sources that potentially contribute to ambient ozone concentrations at the violating monitor in the area.

The Pechanga Band of Luiseno Mission Indians (Pechanga Band) is a federally recognized tribe whose Indian country is located primarily in the southern part of the Los Angeles-Long Beach Combined Statistical Area (CSA), with some land extending into the northern portion of the San Diego-Carlsbad Core Based Statistical Area (CBSA). The Pechanga Band's Indian country consists of a main Reservation and lands recently acquired and put into trust, including lands proximate to the western boundary of the Reservation (Pu'eska Mountain) and lands approximately 30 miles to the northwest of the northern boundary of the Reservation (Meadowbrook).

On October 1, 2016, the Pechanga Band recommended to the EPA that lands within their jurisdiction be designated nonattainment for the 2015 ozone NAAQS. Specifically, the Pechanga Band recommended a nonattainment area designation for the main Reservation and the Pu'eska Mountain land, and a separate nonattainment area designation for the Meadowbrook lands. Please see the October 1, 2016 letter from Mark Macarro, Tribal Chairman, Pechanga Band to Elizabeth Adams, Acting Director, Air Division, EPA Region IX.

In designating areas of the country for the 1997 ozone NAAQS, in 2004 the EPA established boundaries for the Los Angeles-South Coast Air Basin, CA nonattainment area. The Los Angeles-South Coast Air Basin nonattainment area 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. At the time in 2004, all of the Pechanga Band's reservation lands were in the southwestern portion of Riverside County and the EPA included the Pechanga Band's Indian country in the Los Angeles-South Coast Air Basin nonattainment area.

After the 2004 designations for the 1997 ozone NAAQS, the Pechanga Band acquired lands that extended the Reservation into San Diego County. For the 2008 ozone NAAQS designations process, the EPA designated the Pechanga Band's reservation lands as a separate nonattainment area on April 30, 2012, consistent with the Tribe's recommendation (letter from Mark Macarro, Tribal Chairman, Pechanga Band of Luiseno Indians, to Jared Blumenfeld, Regional Administrator, U.S. EPA Region IX, February 23, 2012).

On April 3, 2015, the EPA revised the boundaries of the Pechanga Band's area for the 1997 8-hour ozone NAAQS consistent with the boundaries identified for the Pechanga Band under the 2008 ozone NAAQS (see 80 FR 18125, dated April 3, 2015). The EPA's analysis for the 2008 ozone NAAQS designations process and our April 3, 2015 action regarding the 1997 ozone NAAQS did not consider Pechanga Band's then-recent acquisition of Pu'eska Mountain and Meadowbrook lands.

For the EPA's 2015 ozone NAAQS intended nonattainment boundary for the Pechanga Band, the area of analysis includes lands that are identified in the EPA's 1997 and 2008 ozone NAAQS nonattainment area boundaries, along with the additional lands that have been recently accepted into trust for the Pechanga Band (the Pu'eska Mountain and Meadowbrook lands). All of these lands are in western Riverside County and northern San Diego County. The EPA intends to designate surrounding

state lands as part of the separate Los Angeles-South Coast Air Basin, CA and the San Diego County, CA nonattainment areas. Information specific to those areas is contained in the associated Technical Analysis sections for the Los Angeles-South Coast Air Basin and the San Diego County intended nonattainment areas.

Unless otherwise specified, in the following sections of this TSD, “the Pechanga Band’s jurisdictional area” refers to all of Pechanga Band’s trust lands: lands identified in the EPA’s 1997 and 2008 ozone NAAQS nonattainment area boundaries, along with the additional lands that have been recently accepted into trust for the Pechanga Band (the Pu’eska Mountain and Meadowbrook lands). “The Pechanga Band’s reservation land” refers to the same area minus the Pu’eska Mountain and Meadowbrook lands.

Table 23.1 identifies the area of analysis for the Pechanga intended nonattainment area. The area of analysis includes all lands under the Pechanga Band’s tribal jurisdiction, which consists of lands in Riverside County and San Diego County. Nontribal lands in these counties are analyzed in other sections of this document. The area of analysis comprises portions of the Riverside-San Bernardino-Ontario CBSA, San Diego-Carlsbad CBSA, and Los Angeles-Long Beach CSA that are under the Pechanga Band’s tribal jurisdiction. The intended nonattainment area differs from the existing 1997 and 2008 Pechanga nonattainment areas by including Pu’eska Mountain lands, and it differs from the area of analysis by excluding Meadowbrook lands.

Table 23.1 Area of Analysis.

Intended Nonattainment Area	Area of Analysis	Associated CBSA	Associated CSA
Pechanga Band of Luiseno Mission Indians	Tribal lands in Riverside County and San Diego County under the Pechanga Band’s jurisdiction	Riverside-San Bernardino-Ontario CBSA (partial)* San Diego-Carlsbad CBSA (partial)*	Los Angeles-Long Beach CSA (partial)*

*The remainder of the CBSA/CSA was analyzed in the context of an adjacent nonattainment area.

This analysis was based on the weight-of-evidence of the five factors recommended in the EPA’s ozone designations guidance and other relevant information. In developing this technical analysis, the EPA used the latest data and information available to the EPA (and to the states and tribes through the Ozone Designations Mapping Tool and the EPA Ozone Designations Guidance and Data web page).¹ In addition, the EPA considered all additional data or information provided to the EPA by states or tribes. The EPA’s assessment of the Tribe’s separate nonattainment area recommendation and other information was performed in accordance with the EPA’s December 20, 2011 “Policy for Establishing Separate Air Quality Designations for Areas of Indian Country” (Tribal Policy)².

The five factors recommended in the EPA’s guidance are:

¹ The EPA’s Ozone Designations Guidance and Data web page can be found at <https://www.epa.gov/ozone-designations/ozone-designations-guidance-and-data>.

² <https://www.epa.gov/sites/production/files/2016-02/documents/indian-country-separate-area.pdf>

1. Air Quality Data (including the design value calculated for each Federal Reference Method (FRM) or Federal Equivalent Method (FEM) monitor);
2. Emissions and Emissions-Related Data (including locations of sources, population, amount of emissions, and urban growth patterns);
3. Meteorology (weather/transport patterns);
4. Geography/Topography (including mountain ranges or other physical features that may influence the fate and transport of emissions and ozone concentrations); and
5. Jurisdictional Boundaries (e.g., counties, air districts, existing nonattainment areas, areas of Indian country, Metropolitan Planning Organizations (MPOs)).

Figure 23.1a is a map of the EPA’s intended nonattainment boundary for the Pechanga Band’s jurisdictional area. The map shows the location of the ambient air quality monitors, county boundaries, tribal boundaries, and existing 1997 and 2008 ozone NAAQS nonattainment boundaries. The EPA’s intended 2015 ozone NAAQS designation for the Pechanga Band modifies a portion of the recommendation we received from the Pechanga Band. Figure 23.1b shows the intended nonattainment area in greater detail.

Figure 23.1a: The EPA’s Intended Nonattainment Boundaries for the Pechanga Band, CA.

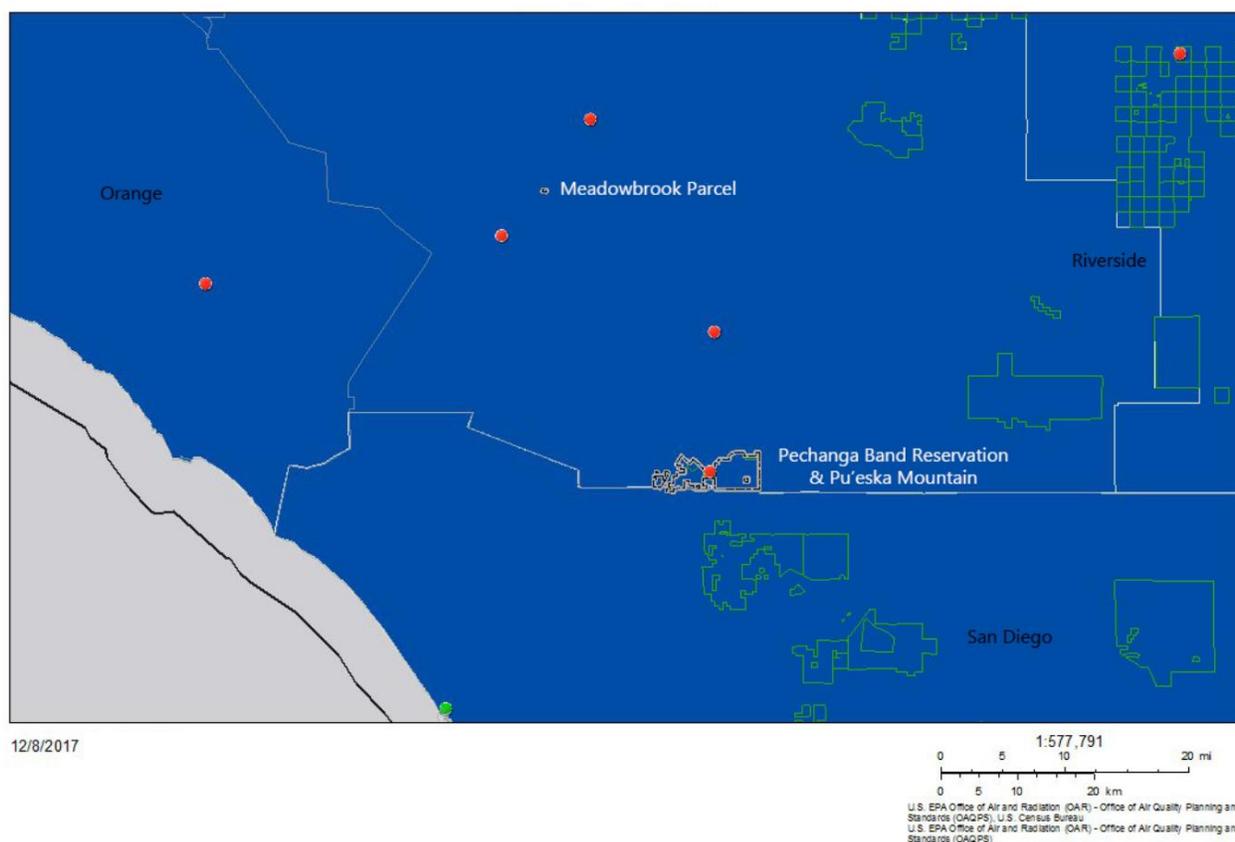


Figure 23.1a shows the EPA’s intended nonattainment boundary for Pechanga Band as a gray line with a dashed black center. Nonattainment areas for the 2008 ozone NAAQS are shown in dark blue areas. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Tribal land boundaries are outlined in green. Please refer to the master legend near the beginning of this document.

Figure 23.1b: The EPA’s Intended Nonattainment Boundaries for the Pechanga Band, CA (zoomed in).

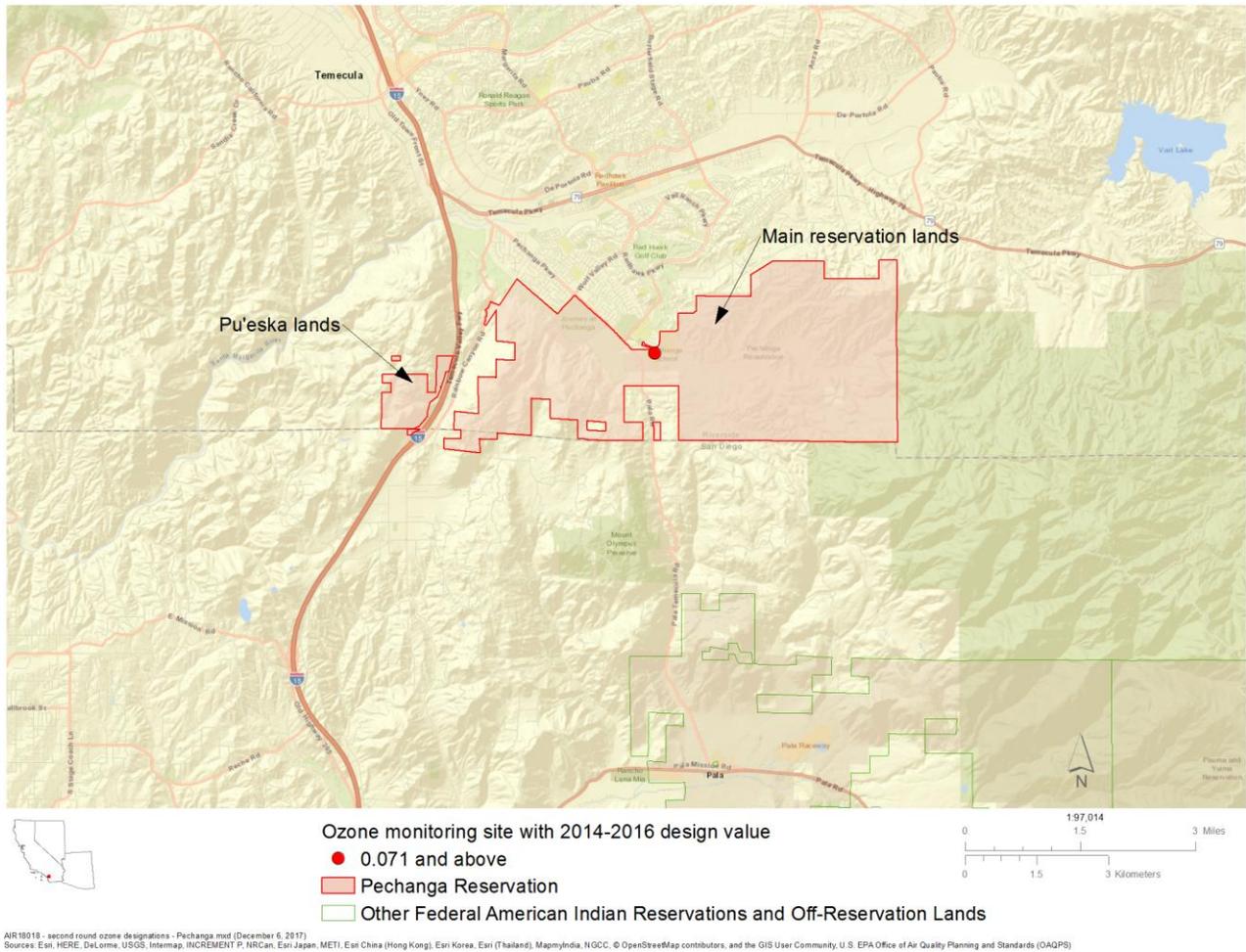


Figure 23.1b shows the EPA’s intended nonattainment boundary for Pechanga Band in greater detail, denoted with red outline and pink fill.

The EPA must designate as nonattainment any area that violates the NAAQS and any nearby areas that contribute to the violation in the violating area. The Pechanga Band has a monitor in violation of the 2015 ozone NAAQS, therefore portions of the Pechanga Band’s lands are included in the intended nonattainment area.

The following sections describe the five factor analysis. While the factors are presented individually, they are not independent. The five factor analysis process carefully considers the interconnections among the different factors and the dependence of each factor on one or more of the others, such as the interaction between emissions and meteorology for the area being evaluated.

Factor Assessment

Factor 1: Air Quality Data

The EPA considered 8-hour ozone design values in ppm for air quality monitors in the Pechanga Band area of analysis based on data for the 2014-2016 period (i.e., the 2016 design value, or DV). This is the most recent three-year period with fully-certified air quality data.³ The design value is the 3-year average of the annual 4th highest daily maximum 8-hour average ozone concentration.⁴ The 2015 NAAQS are met when the design value is 0.070 ppm or less. Only ozone measurement data collected in accordance with the quality assurance (QA) requirements using approved (FRM/FEM) monitors are used for NAAQS compliance determinations.⁵ The EPA uses FRM/FEM measurement data residing in the EPA's Air Quality System (AQS) database to calculate the ozone design values. Individual exceedances or violations of the 2015 ozone NAAQS that the EPA determines have been caused by an exceptional event that meets the administrative and technical criteria in the Exceptional Events Rule⁶ are not included in these calculations. Whenever several monitors are located in a county (or designated nonattainment area), the design value for the county or area is determined by the monitor with the highest valid design value. The presence of one or more violating monitors (i.e. monitors with design values greater than 0.070 ppm) in a county or other geographic area forms the basis for designating that county or area as nonattainment. The remaining four factors are then used as the technical basis for determining the spatial extent of the designated nonattainment area surrounding the violating monitor(s) based on a consideration of what nearby areas are contributing to a violation of the NAAQS.

The EPA identified monitors where the most recent design values violate the NAAQS, and examined historical ozone air quality measurement data (including previous design values) to understand the nature of the ozone ambient air quality problem in the area. Eligible monitors for providing design value data generally include State and Local Air Monitoring Stations (SLAMS) that are operated in accordance with 40 CFR part 58 Appendices A, C, D, and E and operating with an FRM or FEM monitor. These requirements must be met in order to be acceptable for comparison to the 2015 ozone NAAQS for designation purposes. All data from Special Purpose Monitors (SPMs) using an FRM or FEM are eligible for comparison to the NAAQS, subject to the requirements given in the March 28, 2016 Revision to Ambient Monitoring Quality Assurance and Other Requirements Rule (81 FR 17248).

The 2014-2016 design values for monitors in the area of analysis are shown in Table 23.2.

³ Air quality data used in these TSDs were pulled from the EPA's Air Quality System on October 2, 2017 and are available at: https://www.epa.gov/sites/production/files/2017-10/ozone_designvalues_20142016_final_10_02_17_0.xlsx

⁴ The specific methodology for calculating the ozone design values, including computational formulas and data completeness requirements, is described in 40 CFR part 50 Appendix U.

⁵ The QA requirements for ozone monitoring data are specified in 40 CFR part 58 Appendix A. The performance test requirements for candidate FEMs are provided in 40 CFR part 53 Subpart B.

⁶ The EPA finalized the rule on the Treatment of Data Influenced by Exceptional Events (81 FR 68513) and the guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events in September of 2016. For more information, see <https://www.epa.gov/air-quality-analysis/exceptional-events-rule-and-guidance>.

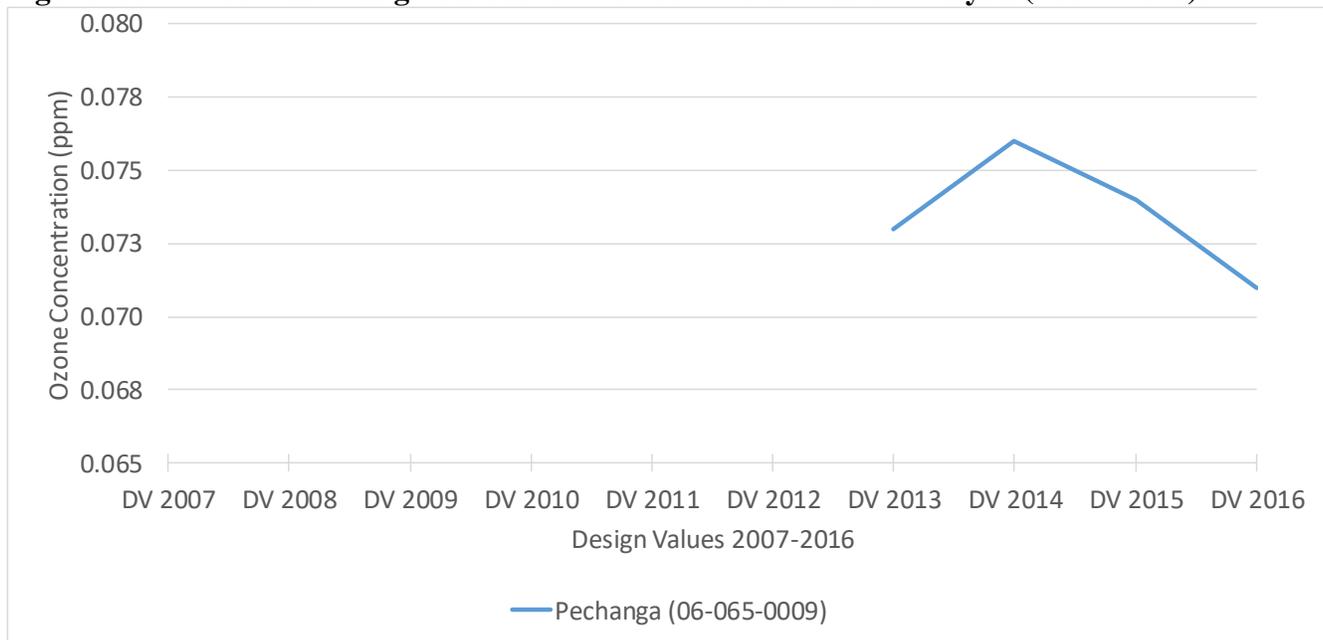
Table 23.2 Air Quality Data (all values in ppm).

Tribal Area, State	Tribe Recommended Nonattainment?	AQS Site ID	2014-2016 DV	2014 4 th highest daily max value	2015 4 th highest daily max value	2016 4 th highest daily max value
Pechanga Band, CA	Yes	06-065-0009	0.071	0.079	0.069	0.067

The Pechanga Band’s jurisdictional area shows a violation of the 2015 ozone NAAQS, therefore portions of the Pechanga Band’s jurisdictional area are included in the intended nonattainment area. A county (or partial county) must also be designated nonattainment if it contributes to a violation in a nearby area.

Figure 23.1a, shown previously, identifies the Pechanga Band intended nonattainment area and the violating monitor. Table 23.2 identifies the design value for all monitors in the area of analysis. Figure 23.2 shows the historical trend of design values for the single monitor that is located in the Pechanga Band’s jurisdictional area. As shown in Figure 23.2, this monitor has a valid DV starting in 2013, and has a decreasing DV since 2014.

Figure 23.2 Three-Year Design Values for Monitor in the Area of Analysis (2007 - 2016).



The Pechanga area has one monitoring site showing a violation of the 2015 ozone NAAQS based on 2014-2016 data. The violating monitor is located on the portions of the reservation that were included as part of the designated nonattainment area for the 1997 and 2008 ozone NAAQS. There is no monitor on the Pu’eska Mountain or Meadowbrook lands.

Factor 2: Emissions and Emissions-Related Data

The EPA evaluated ozone precursor emissions of nitrogen oxides (NO_x) and volatile organic compounds (VOC) and other emissions-related data that provide information on areas contributing to violating monitors.

Emissions Data

Data from the 2014 National Emissions Inventory (NEI) was not available for the Pechanga Band, therefore, the EPA utilized emissions data developed for a 2015 Pechanga Band rulemaking (80 FR 18120, dated April 3, 2015) for this section of the technical analysis. For the Pechanga Band area of analysis, the EPA examined the magnitude of NO_x and VOC emissions. These emissions represent that sum of emissions from the following general source categories: point sources and on-road mobile sources. Emissions levels from sources in a nearby area indicate the potential for the area to contribute to monitored violations.

Table 23.3 provides an emissions summary of NO_x and VOC (given in tons per year (tpy)) emissions for the area of analysis considered for inclusion in the intended Pechanga Band nonattainment area.

Table 23.3 Total Pechanga Area NO_x and VOC Emissions.

Tribal Area, State	Tribe Recommended Nonattainment?	Total NO_x (tpy)	Total VOC (tpy)
Pechanga Band, CA	Yes	32.1	55.1
	Area wide:	32.1	55.1

In addition to reviewing emissions of NO_x and VOC in the area of analysis, the EPA also reviewed emissions from large point sources within the area of analysis. The location of these sources, together with the other factors, can help inform nonattainment boundaries. The locations of the large point sources would be shown in Figure 23.3 below if there were any within the area of analysis but there are no such sources in the area of analysis. The intended nonattainment boundary is also shown in Figure 23.3

Figure 23.3 Large and Small Point Sources in the Area of Analysis*.

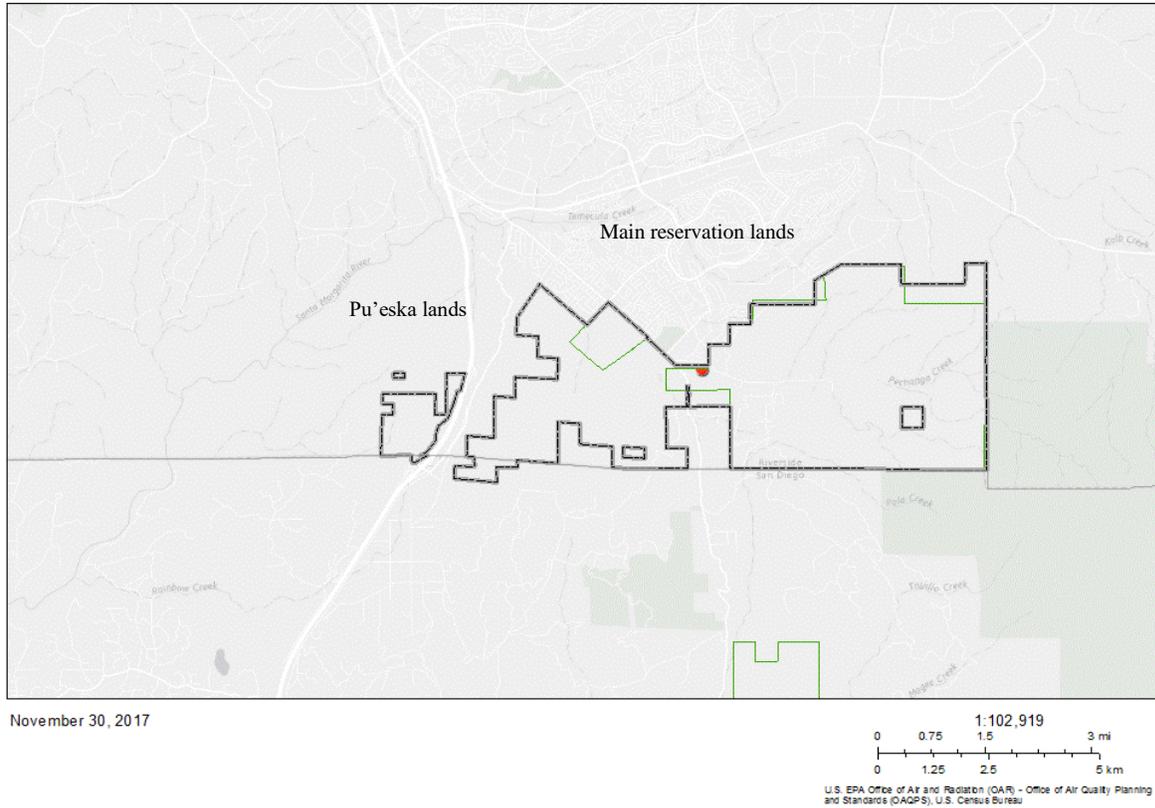


Figure 23.3 shows large point sources in the area of analysis* for Pechanga Band as orange squares (none appear), and small point sources as yellow stars (none appear). The EPA’s intended nonattainment boundary for Pechanga Band is shown as a gray line with a dashed black center. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Please refer to the master legend near the beginning of this document. *Meadowbrook is not shown in the figure. There are no large or small point sources on the Meadowbrook land.

In summary, the EPA’s analysis of relevant emissions and the geographic locations of the relevant emissions shows that the NO_x and VOC emissions are less than 100 tpy and there are no large or small point sources of ozone precursor emissions within the area of analysis.

Population density and degree of urbanization

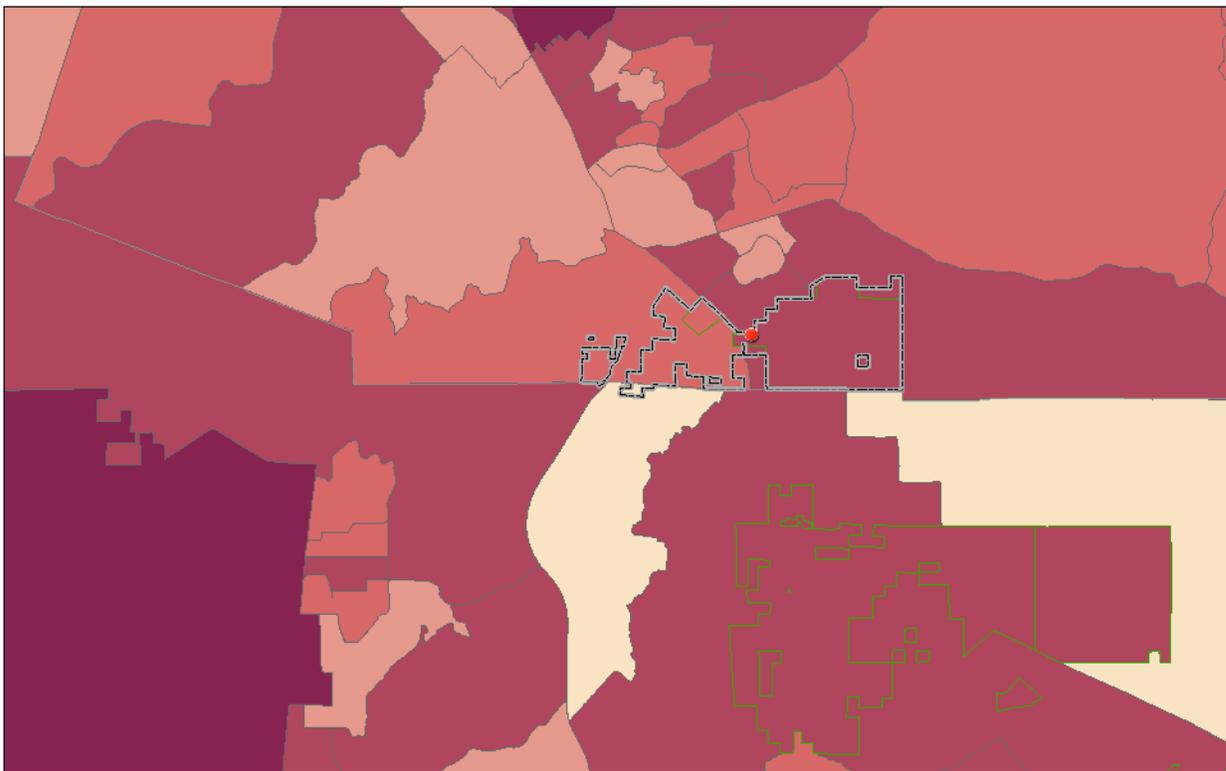
In this part of the factor analysis, the EPA evaluated the population and vehicle use characteristics and trends of the area as indicators of the probable location and magnitude of non-point source emissions. These include emissions of NO_x and VOC from on-road and non-road vehicles and engines, consumer products, residential fuel combustion, and consumer services. Areas of dense population or commercial development are an indicator of area source and mobile source NO_x and VOC emissions that may contribute to violations of the NAAQS. Table 23.4 shows the population and population density for the Pechanga Band area of analysis. The data used in the table is from 80 FR 18125, dated April 3, 2015.

Table 23.4. Population and Growth.

Tribal Area, State	Tribe Recommended Nonattainment?	2015 Population	2015 Population Density (per sq. mi.)
Pechanga Band, CA	Yes	467	44.5
	Area wide:	467	44.5

Figure 23.4 shows that the census tract covering the Pechanga Band’s monitor and east has higher population than the census tract immediately west of the monitor. There are approximately 44 people per square mile within the Pechanga Band’s jurisdictional area.

Figure 23.4 Census Tract-Level Population.



November 30, 2017

1:205,838
 0 1.75 3.5 7 mi
 0 2.75 5.5 11 km
 U.S. EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS), U.S. Census Bureau

U.S. EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS), U.S. Census Bureau | Map Service: USEPA Office of Environmental Information (OEI), Data: USEPA Office of Environmental Information (OEI), US Census Bureau | Source: U.S. Census Bureau | Web AppBuilder for ArcGIS

Figure 23.4 shows census tract population in the area of analysis* for Pechanga Band. Lighter shades of red indicate areas with smaller populations; darker shades of red indicate areas with larger populations. The EPA’s intended nonattainment boundary for Pechanga Band is shown as a gray line with a dashed black center. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Please refer to the master legend near the beginning of this document.

*Meadowbrook is not shown in the figure. There are no residents on the Meadowbrook land.

Traffic and Vehicle Miles Travelled (VMT)

The EPA evaluated the commuting patterns of residents, as well as the total vehicle miles traveled (VMT) for each county in the area of analysis. In combination with the population/population density data and the location of main transportation arteries, this information helps identify the probable location of non-point source emissions. A county with high VMT and/or a high number of commuters is generally an integral part of an urban area and high VMT and/or high number of commuters indicates the presence of motor vehicle emissions that may contribute to violations of the NAAQS. Rapid population or VMT growth in a county on the urban perimeter may signify increasing integration with the core urban area, and thus could indicate that the associated area source and mobile source emissions may be appropriate to include in the nonattainment area. In addition to VMT, the EPA evaluated worker data collected by the U.S. Census Bureau for the area of analysis. The data in Table 23.5 are 2014 data.

Table 23.5. Traffic and Commuting Patterns.

Tribal Area, State	Tribe Recommended Nonattainment?	2014 Total VMT (Million Miles)	Number of Tribal Residents Who Work	Number Commuting To or Within Tribal Area with Violating Monitor(s) Within Area of Analysis	Percentage Commuting To or Within Tribal Area with Violating Monitor(s) Within Area of Analysis
Pechanga Band, CA	Yes	N/A	62	60	96.8%
Total:		N/A	62	60	96.8%

Areas with a monitor(s) violating the NAAQS are indicated in bold.

To show traffic and commuting patterns, Figure 23.5 overlays twelve-kilometer gridded VMT from the 2014 NEI with a map of the transportation arteries.

Figure 23.5 Twelve Kilometer Gridded VMT (Miles) Overlaid with Transportation Arteries.

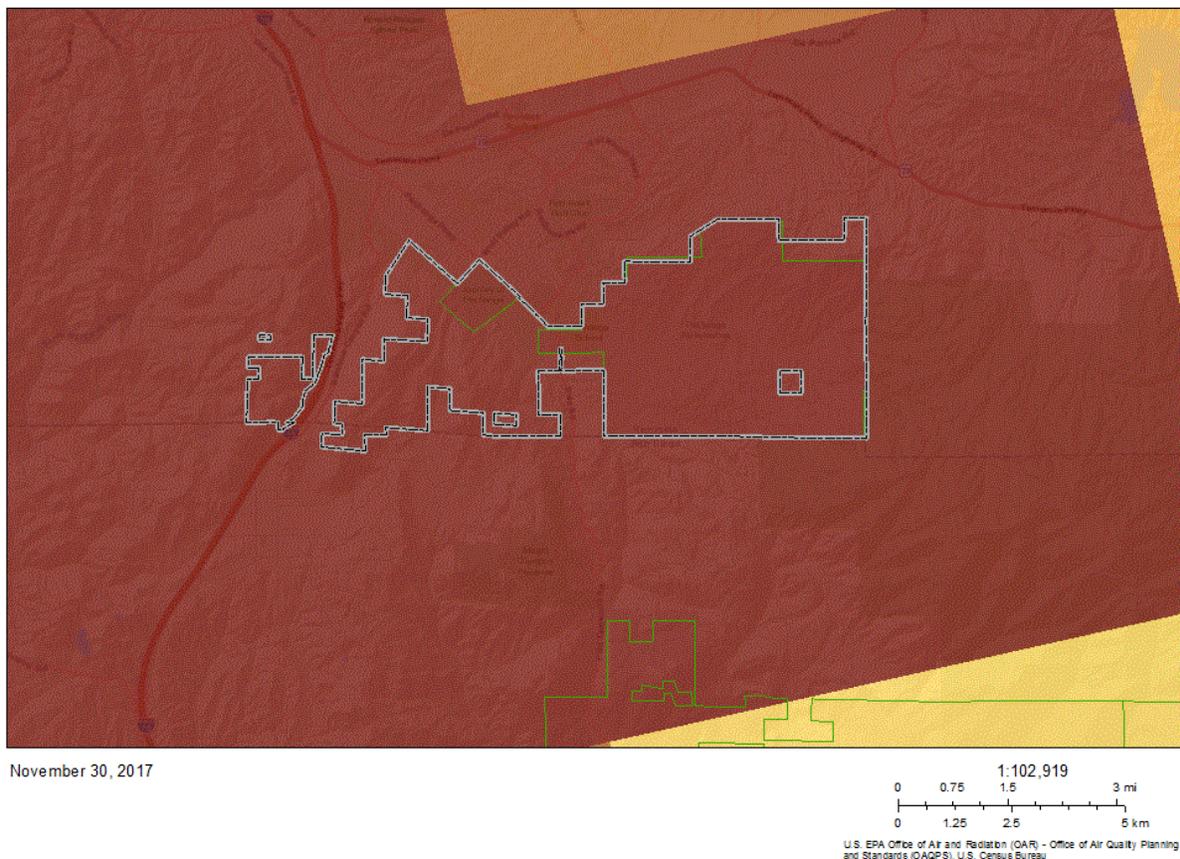


Figure 23.5 shows gridded VMT in the area of analysis* for Pechanga Band. Lighter shades of yellow indicate areas with lower VMT; darker shades of brown indicate areas with higher VMT. The EPA's intended nonattainment boundary for Pechanga Band is shown as a gray line with a dashed black center. Please refer to the master legend near the beginning of this document.

*Meadowbrook is not shown in the figure. There are no residents at Meadowbrook.

The EPA's analysis of traffic and commuting patterns is based on data from the VMT spreadsheet on the Ozone Designations webpage (see footnote 1) and On the Map data from the Census Bureau,⁷ and shows that about 97% of the workers work in an area with a violating monitor. Interstate Highway I-15 runs between the main body of the Pechanga Band's jurisdictional area and the new Pu'eska Mountain section. Consistent with the EPA's prior designations of the Pechanga Band's nonattainment area, emissions from I-15 are included in the technical analysis discussion associated with the intended Los Angeles-South Coast Air Basin nonattainment area.

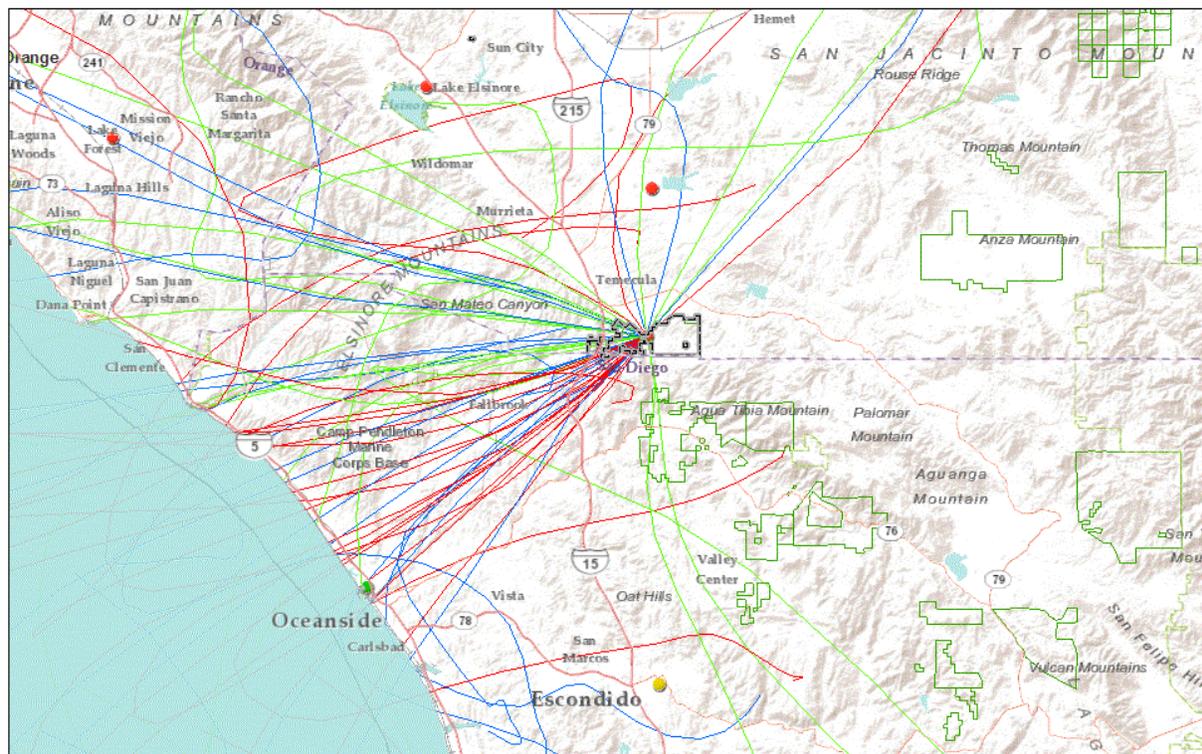
The EPA also reviewed relevant analysis and data used in a recent designation action (see 80 FR 18120, dated April 3, 2015). These more detailed analyses assume 17,100 average daily vehicle trips associated with non-residents and 1,870 daily vehicle trips associated with residents (for additional detail, please see 80 FR 18126, dated April 3, 2015).

Factor 3: Meteorology

⁷ The Census Bureau's On The Map web page can be found at <https://onthemap.ces.census.gov/>.

Evaluation of meteorological data helps to assess the fate and transport of emissions contributing to ozone concentrations and to identify areas potentially contributing to the monitored violations. Results of meteorological data analysis may inform the determination of nonattainment area boundaries. In order to determine how meteorological conditions, including, but not limited to, weather, transport patterns, and stagnation conditions, could affect the fate and transport of ozone and precursor emissions from sources in the area, the EPA evaluated 2014-2016 HYbrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) trajectories at 100, 500, and 1000 meters above ground level that illustrate the three-dimensional paths traveled by air parcels to a violating monitor. Figure 23.6 shows the 24-hour HYSPLIT back trajectories for each exceedance day (i.e., daily maximum 8 hour values that exceed the 2015 ozone NAAQS) for the violating monitor.

Figure 23.6. HYSPLIT Back Trajectories for Pechanga Monitor (AQS ID 06-065-0009).



December 1, 2017

1:577,791
 0 5 10 20 mi
 0 5 10 20 km
 U.S. EPA Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS), U.S. Census Bureau

standards (OAQPS), U.S. Census Bureau | Map Service: USEPA Office of Environmental Information (OEI), Data: USEPA Office of Environmental Information (OEI), US Census Bureau | Source: U.S. Census Bureau | Sources: Esri, USGS, NOAA | Sources: Esri, Delorme, USGS, NPS | Web AppBuilder for ArcGIS

Figure 23.6 shows HYSPLIT back-trajectories starting at 100 (red lines), 500 (green lines), and 1000 (blue lines) meters above ground level, respectively. Trajectories extend back in time 24 hours from 6 p.m. on the day of the exceedance. The EPA’s intended nonattainment boundary for Pechanga Band is shown as a gray line with a dashed black center. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Please refer to the master legend near the beginning of this document.

The EPA's HYSPLIT analysis shows back trajectories for days exceeding the 2015 ozone NAAQS in 2014-2016. The model output shows that the winds during exceedance days are predominantly from the west, with trajectories coming from the north, northwest and southwest to a lesser extent.

Factor 4: Geography/topography

Consideration of geography or topography can provide additional information relevant to defining nonattainment area boundaries. Analyses should examine the physical features of the land that might define the airshed. Mountains or other physical features may influence the fate and transport of emissions as well as the formation and distribution of ozone concentrations. The absence of any such geographic or topographic features may also be a relevant consideration in selecting boundaries for a given area.

The EPA used geography/topography analysis to evaluate the physical features of the land that might affect the airshed and, therefore, the distribution of ozone over the area.

Western U.S., topography impacts pollutant formation and transport, and thus plays an important role in assessing what areas are contributing to monitored violations of the NAAQS.

The Pechanga Band's jurisdictional area consists of 6,700 acres located in the northwestern portion of the Cleveland National Forest, ranging between 1,100 and 2,600 feet in elevation. The Pechanga Band's jurisdictional area does not have any geographical or topographical features that would prevent air pollution transport from the surrounding San Diego County or Los Angeles-South Coast Air Basin nonattainment areas. This suggests that Pechanga Band's jurisdictional area may experience similar air quality to the surrounding nonattainment areas. The Meadowbrook lands are approximately 30 miles north of the northernmost corner of the main body, Reservation land, of the Pechanga Band's jurisdictional area; the Pu'eska Mountain lands are approximately 0.3 miles west of the Reservation land.

Figure 23.7. Topographic Illustration of the Physical Features.

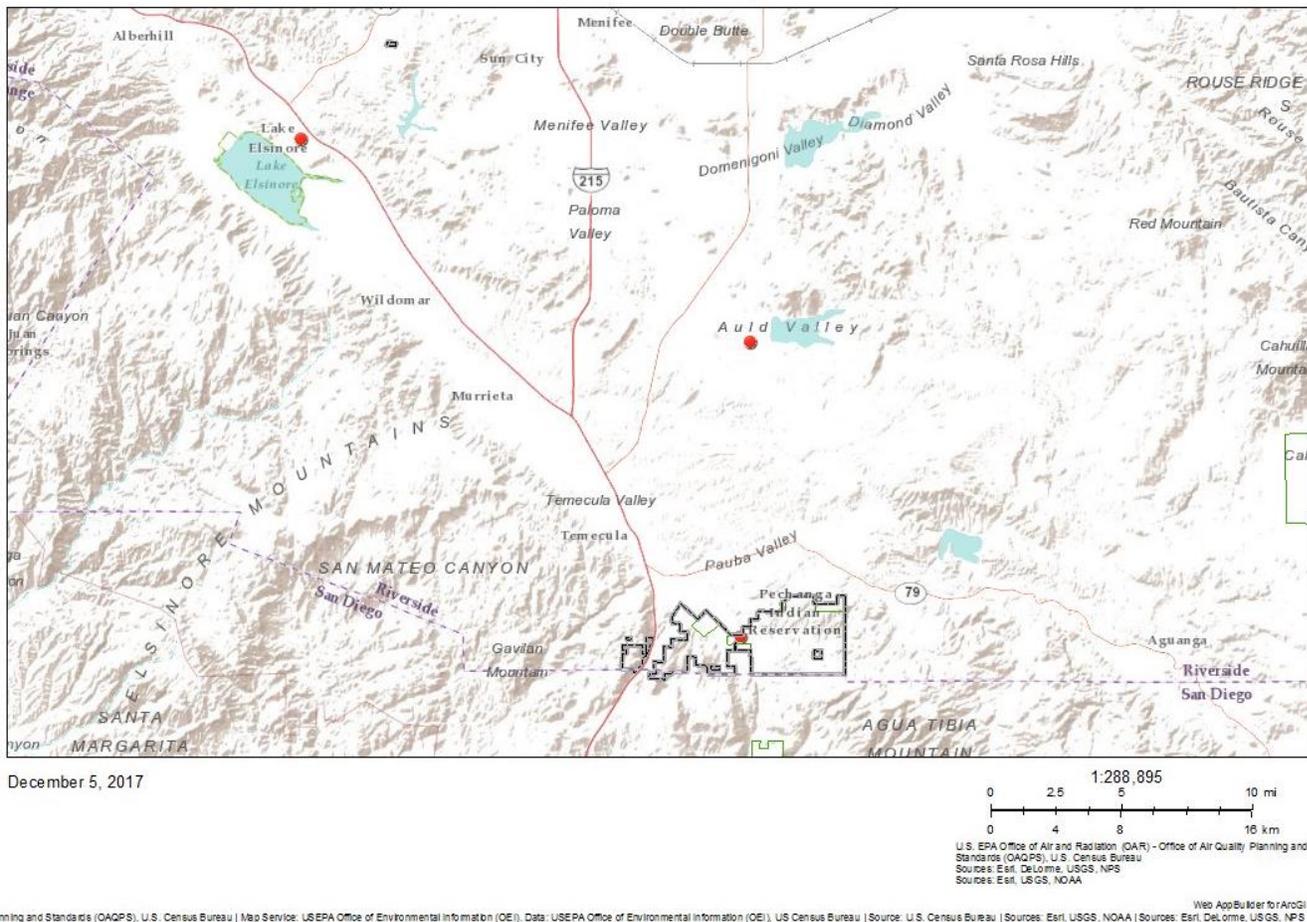


Figure 23.7 shows the topography in the area of analysis for Pechanga Band. The EPA’s intended nonattainment boundary for the Pechanga Band, CA is shown as a gray line with a dashed black center. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Please refer to the master legend near the beginning of this document.

Factor 5: Jurisdictional boundaries

Once the geographic extent of the violating area and the nearby area contributing to violations is determined, the EPA considered existing jurisdictional boundaries for the purposes of providing a clearly defined legal boundary to carry out the air quality planning and enforcement functions for nonattainment areas. In defining the boundaries of the intended Pechanga Band nonattainment area, the EPA considered existing jurisdictional boundaries, which can provide easily identifiable and recognized boundaries for purposes of implementing the NAAQS. Examples of jurisdictional boundaries include, but are not limited to: counties, air districts, areas of Indian country, metropolitan planning organizations, and existing nonattainment areas. If an existing jurisdictional boundary is used to help define the nonattainment area, it must encompass all of the area that has been identified as meeting the nonattainment definition. Where existing jurisdictional boundaries are not adequate or appropriate to describe the nonattainment area, the EPA considered other clearly defined and permanent landmarks or geographic coordinates for purposes of identifying the boundaries of the intended designated areas.

Figure 23.8 shows the relevant jurisdictional boundaries for the Pechanga Band. As discussed above, the Pechanga Band has previously established nonattainment boundaries associated with the one-hour, 1997 eight-hour and 2008 eight-hour ozone NAAQS.

The Pechanga Band’s lands are located in the northern portion of the San Diego-Carlsbad CBSA and the southern part of the Los Angeles-Long Beach CSA.

The Pechanga Band’s lands include the main body of the reservation (as identified in the 2008 ozone NAAQS designation and the EPA’s April 3, 2015 action on the 1997 ozone NAAQS) as well as the Pu’eska Mountain and Meadowbrook lands. The Pechanga Band’s reservation land, the Pu’eska Mountain lands, and the Meadowbrook lands are all under the Pechanga Band’s jurisdiction.

As noted above, the Pu’eska Mountain lands are to the immediate west of the Reservation land. The Meadowbrook lands are near the City of Lake Elsinore in the South Coast Air Basin, approximately 30 miles northwest of the northern boundary of the Pechanga Band’s reservation land.

The EPA intends to designate Los Angeles-South Coast Air Basin and San Diego County nonattainment for the 2015 ozone NAAQS as well. More information on these areas can be found in the technical analysis sections for these areas.

Figure 23.8: Jurisdictional Boundaries

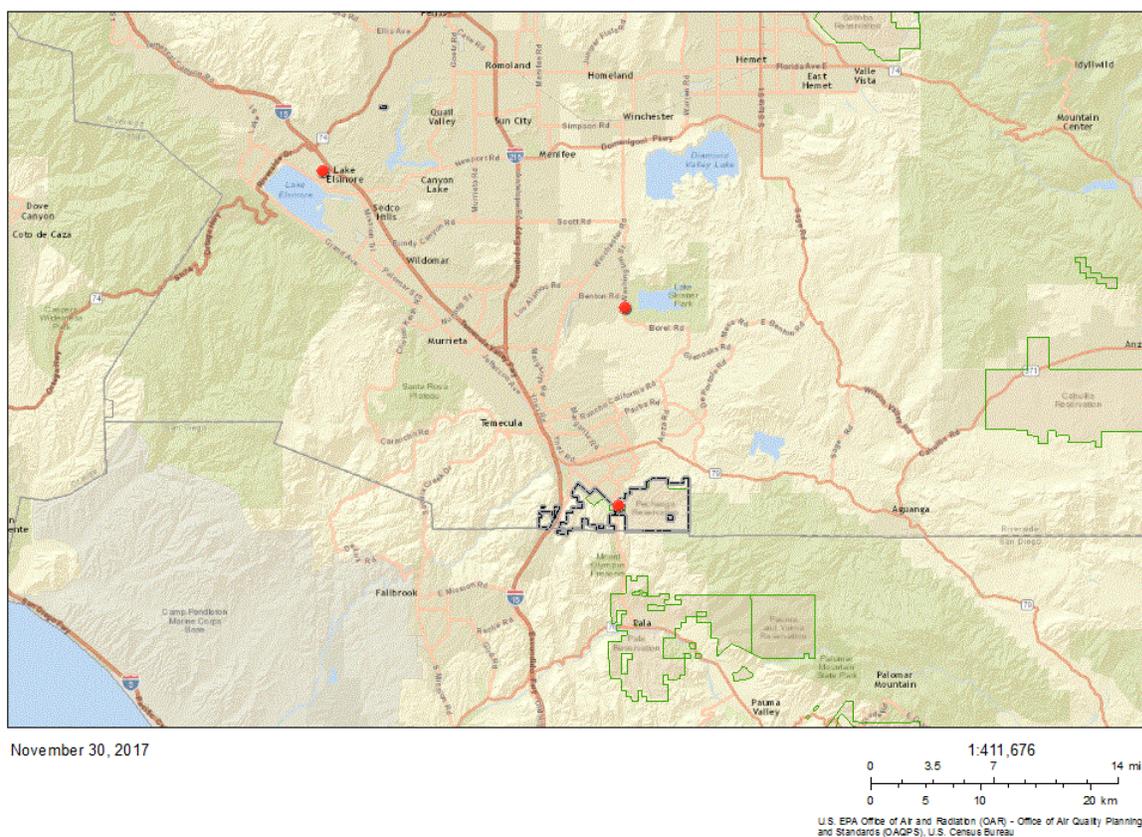


Figure 23.8 shows jurisdictional boundaries, in the area of analysis for the Pechanga Band. The EPA’s intended nonattainment boundary for the Pechanga Band, CA is shown as a gray line with a dashed black center. The Meadowbrook parcel is also shown as it is within the Pechanga Band’s jurisdiction but is not included in the EPA’s intended Pechanga Band nonattainment area. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Please refer to the master legend near the beginning of this document.

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.” The EPA recognizes the sovereignty of tribal governments, and has attempted to take the input of the tribes into account in establishing appropriate nonattainment area boundaries.

The EPA’s assessment of the jurisdictional factor was performed in accordance with the Tribal Designations Policy. 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 contributing to nonattainment in the adjacent area. As with prior designations analyses, taking into account the relative amount of emissions associated with activities within the Pechanga Band’s jurisdictional area and corresponding minimal contribution to regional ozone violations, we believe that under the circumstances present here, it would be appropriate to assign particular weight to the jurisdictional boundaries factor with respect to all of the Pechanga Band’s lands with the exception of the Meadowbrook parcel for which there is no on-site regulatory monitoring. The Meadowbrook parcel will be included in the Los Angeles-South Coast Air Basin. The Meadowbrook parcel is under the Pechanga Band’s jurisdiction and will be identified as such in 40 CFR Part 81.

Conclusion for the Pechanga Band of Luiseno Mission Indians, CA

The Pechanga Band recommended that all lands within their jurisdiction be designated in two separate nonattainment areas for the 2015 ozone NAAQS: one area comprised of all tribal lands except for the non-contiguous Meadowbrook lands⁸, and a separate nonattainment area comprised of just the Meadowbrook lands. The EPA intends to modify parts of this recommendation.

Based on the assessment of the factors described above, and assigning particular weight to the jurisdiction factor, the EPA does not intend to modify the Pechanga Band’s recommendation to establish a separate nonattainment area for the Pechanga Band’s jurisdictional area except as that recommendation also applies to the non-contiguous Meadowbrook lands under the Pechanga Band's jurisdiction. The Pechanga Band nonattainment area is the same nonattainment area as established for the 1997 and 2008 ozone NAAQS, with the addition of the proximate non-contiguous Pu'eska Mountain lands over which the Pechanga Band has jurisdiction. The air quality monitor in the main body of the Pechanga Band’s jurisdictional area, just east of the Pu'eska Mountain lands, indicates a violation of the 2015 ozone NAAQS based on the 2016 design values.

⁸ Both the Pu'eska Mountain and Meadowbrook lands are subject to development restrictions that will not allow for any future development.

We intend to designate as nonattainment the main body of the Pechanga Reservation along with the proximate non-contiguous Pu'eska Mountain lands. The air quality monitor in the Pechanga Band's jurisdictional area indicates a violation of the 2015 ozone NAAQS based on the 2016 design values. NO_x and VOC emissions are less than 100 tpy each and there are very few stationary and mobile sources of ozone precursor emissions within the area of analysis. There are approximately 44 people per square mile within the Pechanga Band's jurisdictional area. Interstate Highway I-15 runs between the main body of the reservation and the Pu'eska Mountain parcel. HYSPLIT results show that the winds during exceedance days are predominately from the west. The Pechanga Band and Pu'eska Mountain parcel are located between the Los Angeles-South Coast Air Basin, CA nonattainment area to the north and the San Diego County, CA nonattainment area to the south. Designating this area separately from adjacent non-tribal lands is consistent with prior ozone designations and the EPA's Tribal Designations Policy.

The EPA therefore intends to designate the main body of the Pechanga Band reservation and the Pu'eska Mountain parcel as "nonattainment" separate from the adjacent Los Angeles-South Coast Air Basin and the San Diego County intended nonattainment areas.

With respect to the Meadowbrook parcel, there is no on-site regulatory monitoring data. The non-contiguous Meadowbrook lands are 30 miles northwest of the main body of the Pechanga Band's jurisdictional area. The Meadowbrook lands are surrounded by the intended Los Angeles-South Coast Air Basin nonattainment area, which is under the air quality planning jurisdiction of the SCAQMD. For the Meadowbrook parcel, based on the five factors, especially the lack of on-site regulatory monitoring, the lack of sources, the geographic separation, and the small size of the area, the EPA intends to designate the non-contiguous Meadowbrook lands under the Pechanga Band's jurisdiction as "nonattainment" as part of the South Coast Air Basin nonattainment area and not part of the Pechanga Band nonattainment area. This is consistent with how the Meadowbrook lands are designated for the 1997 and 2008 ozone NAAQS.