



PECHANGA BAND OF INDIANS

Pechanga Indian Reservation

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January 31, 2025

Cheree Peterson
USEPA Region 9 Acting Regional Administrator
U.S. Environmental Protection Agency
75 Hawthorne Street #11
San Francisco, CA 94105

RE: *Recommendation for Designation of Attainment for the Revised National Ambient Air Quality Standards (NAAQS) 2024 Primary (Health-based) Annual Standard for Particulate Matter smaller than 2.5 microns (PM_{2.5}) in the Pechanga Air Quality Planning Area.*

Dear Acting Regional Administrator Peterson,

On behalf of the Pechanga Band of Indians (“the Band”), I am writing in response to the particle pollution designations for the 2024 revised annual PM NAAQS process. We respectfully request the designation of the Pechanga Planning Area and lands held in trust by the Band, including the Meadowbrook parcel, as *attainment* for the revised annual PM_{2.5} standard. This letter outlines the basis for our request and highlights discrepancies in planning area definitions that we seek to clarify.

PM_{2.5} Design Values for the Pechanga Planning Area

The Pechanga Planning Area’s air monitoring network, which is located on the Pechanga Reservation at the Government Center, has consistently demonstrated compliance with the annual PM_{2.5} NAAQS. Our design values over the past three years are as follows:

- **2021:** 5.9 µg/m³
- **2022:** 6.2 µg/m³
- **2023:** 6.1 µg/m³

These values reflect air quality well within the attainment threshold of new 9 µg/m³ annual standard.

Summary of Five-Factor Analysis

Factor 1: Air Quality Data

The Band has been operating its air monitoring station since 2008. The site is located on the Pechanga Indian Reservation (Reservation) on the southeastern boundary of the city of Temecula. The single air monitoring site collects data for multiple pollutants. Table 1 provides a list of monitoring locations, the United States Environmental Protection Agency (USEPA) Air Quality System (AQS) site code, and the pollutants monitored.

On April 3, 2015, the USEPA took a final action to revise the boundaries of the Southern California air quality planning areas to designate the reservation of the Pechanga Band of Indians of the Pechanga Reservation, California as a separate air quality planning area for the 2008 ozone standard and the 2012 annual PM_{2.5} standard.

Table 1- Pechanga Air Station Pollutants Monitored

Site Name	AQS Code	Pollutants Monitored
Pechanga Air Station	TT-586-0009	O ₃ PM _{2.5}

PM 2.5

Fine particulate matter with a diameter of 2.5 microns or less is created primarily from industrial processes and fuel combustion. These particles are breathed deeply into the lungs. Exposure to particle pollution is linked to a variety of significant health problems ranging from aggravated asthma to premature death in people with heart and lung disease.

Table 2- Monitoring for PM_{2.5}

Tribal Land	County	County Population in July 1, 2023 (US Census Bureau) ¹	Annual Design Value 2021-2023 (ppm)	24-Hr Design Value µg/m ³	Monitors Required	Active Monitors	Monitors Needed
Pechanga Indian Reservation	Riverside Metro Area/San Diego-Chula Vista-Carlsbad, Metro Area	2,492,442 / 3,269,973	6.1	13	1	2	2

The Pechanga air station is collecting PM_{2.5} data, measured in micrograms per cubic meter (µg/m³), to be used by the Band to make regulatory decisions in support of Tribal sovereignty. The data are also collected for use by the community and for the Band to monitor NAAQS compliance. The data are submitted to AQS to demonstrate compliance with NAAQS and to support research by the community and regulatory agencies. All sites are suitable for comparison against the annual PM_{2.5} NAAQS.

The method used for the Beta Attenuation Monitor (BAM) Model 1020 configured for PM_{2.5} federal equivalent (FEM) monitoring includes sampling of ambient air through a standard USEPA PM₁₀ inlet head and a Very Sharp Cut Cyclone (VSCC) at a volumetric flow rate of 16.7 liters per minute. A Smart Heater attached to the inlet system, and controlled by relative humidity (RH) measured at the filter tape, minimizes positive artifact from water sorption in humid environments. Particles in the air stream are collected and measured on quartz fiber filter tape. PM_{2.5} concentrations and sampling attribute data are reported hourly for a 24-hour period, from midnight to midnight. The equipment is listed in the USEPA list of designated reference and equivalent methods as: EQPM-0798-122.

A collocated PM_{2.5} sampler at the air station is a Thermo Scientific Partisol Model 2000i. The Partisol 2000i Air Sampler was designed to conform to the USEPA federal reference method (FRM) for fine particulate sampling. The hardware was designed to meet or exceed the requirements of CFR 40 Part 50. It is located 2.34 meters from the primary sampler, at a right angle to the prevailing southwest wind direction. Its sample inlet is nine meters above the ground, at the same height as the primary sampler. The Partisol 2000i sampler operates by splitting a PM₁₀ sample stream into its PM_{2.5} and coarse fractions (particles between 2.5 and 10 microns in size) using an USEPA designed virtual impactor for the 2.5 micron cutpoint. The system collects particulate matter on two 47 mm diameter filters simultaneously. The sampler is operated for a 24-hour period, from midnight to midnight, once every 6 days, according to the national schedule. The equipment is listed in the USEPA list of designated reference and equivalent methods as: RFPS-1298-126.

Factor 2: Emissions

The Pechanga Environmental Department created an Emissions Inventory in 2021. The report was conducted using the most current information and data available during the timeframe. The report was very thorough and examines the emissions sources on the reservation.

Area Sources

A total of six (6) area sources were identified on the Pechanga Reservation. Typically, area sources are inventoried collectively due to number of sources or geographical separation. Area sources include:

- Pechanga Resort & Casino (PRC);

- Tribal Government Building;
- Recreation Center;
- Gas Station;
- Residences; and
- Natural.

Area sources encompass more widespread sources that may be abundant, but individually, they release small amounts of a given pollutant. These emission sources are estimated as a group rather than individually. Area sources within the Reservation have been identified and inventoried individually in order to establish baseline emissions data that can be used to calculate trends from each individual source.

Table 3 - Area Source Emissions (tons/year)

Source	CO	NO _x	SO ₂	PM ₁₀	VOC
Pechanga Resort & Casino	8.73	6.27	.15	12.17	.86
Government Bldg	0.3	0.25	0.01	0.01	0.04
Recreation Center	2.324	1.606	0.017	0.210	0.152
Residences	7.440	0.717	0.024	1.158	1.138
Emergency Generators	.18	1.54	.04	.07	0.09
Total (tons/yr)	18.974	10.383	0.241	13.618	2.28

Mobile Sources

Mobile sources include emissions from on-road and off-road vehicles and equipment that directly impact the Reservation. On-road sources include passenger cars, trucks, buses and motorcycles. Off-road vehicles include construction and farm equipment. Other off-road vehicles, such as aircraft, trains and boats, are not operated within the boundaries of the Reservation and are not included in this emissions inventory.

Table 4 - On-Road Mobile Emissions (tons/year)

Source	CO	NO _x	SO ₂	PM ₁₀	VOC
On-road	45.108	7.269	0.161	0.234	4.834
Off-road	0.212	1.173	0.033	0.007	0.014
Total (tons/yr)	45.320	8.442	0.194	0.241	4.848

Natural Sources

Emissions from natural sources on the Reservation include wildfires, vegetation, and dust from undisturbed surfaces.

Table 5 - Natural Source Emissions (tons/year)

Source	CO	NO _x	SO ₂	PM ₁₀	VOC
Wildfires	712.51	20.39	-	86.35	122.1
Dust from undisturbed lands	-	-	-	0.036	-
Riparian Woodland	-	-	-	-	1.55
Southern Oak Woodland	-	-	-	-	1.54
Chamisal Chaparral	-	-	-	-	6.70
Transitional Chaparral	-	-	-	-	0.857
Totals (tons/yr)	712.51	20.39	-	86.386	132.747

Factor 3: Meteorology

Ambient air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the local air shed, and the pollutant-dispersion properties of local weather patterns. When airborne pollutants are not dispersed by local meteorological conditions, air quality problems will result.

Review of meteorological data collected at the Reservation indicate a predominant wind direction from the southwest. This is a strong sea breeze that originates near Oceanside and passes through a relatively unpopulated area in San Diego County before it reaches the Reservation.

Factor 4: Geography/Topography

The Pechanga Reservation ranges from 1,100 feet to 2,600 feet in elevation. The Reservation is settled amidst mountain ranges, with Wild Horse Peak and Agua Tibia Mountain to the east/southeast, Pala Mountain to the South, and Mount Olympus and Gavilan Mountain to West/Southwest, respectively. The Santa Rosa mountain ranges, running north and south, and Camp Pendleton close in the Reservation to the west. Interstate 15, a major transportation route for the inland counties, is located approximately 0.2 miles west of the reservation; the City of Temecula is located approximately four miles to the northwest; with SR 79 as the main transportation corridor providing access to the Reservation. The outlying areas to the north and northeast from the Reservation include Temecula residential and business areas.

Factor 5: Jurisdictional Boundaries

The Pechanga Band of Indians exerts jurisdiction over all lands within the Reservation as well as lands held in trust for its benefit by the United States.

Clarification of Planning Area Boundaries

The California Air Resources Board (CARB) has included the Pechanga Reservation within their nonattainment planning area. However, this inclusion is inconsistent with the USEPA's 2015 determination, which recognized the Pechanga Planning Area as a distinct entity.

The Reservation has many new additional parcels now held in trust but not contiguous to the Reservation. We will be working with the USEPA Air Division staff to update the Pechanga planning area. USEPA mapping tools do not include all the trust properties of Pechanga.

Meadowbrook is included in the mapping toolkit available online through the USEPA website. Meadowbrook is shown to be in attainment for the 2012 PM2.5 NAAQS. We would ask the additional parcels be included in the attainment status in the future.

Request for Designation

The Band respectfully requests:

1. **Attainment Designation for the Pechanga Planning Area:** The data from our monitoring network clearly supports this designation; and
2. **Attainment Designation for the Pechanga Trust land noncontiguous to the Reservation:** Meadowbrook is included in the mapping toolkit available online through the USEPA website. Meadowbrook is shown to be in attainment for the 2012 PM2.5 NAAQS.

Conclusion

The Pechanga Band of Indians appreciates the opportunity to provide input on this critical matter. We urge the USEPA to acknowledge the unique circumstances of our planning area, the robust monitoring data demonstrating attainment, and the need to ensure accurate representation of Tribal sovereignty in air quality planning.

We look forward to continuing our collaboration with the USEPA and other stakeholders to protect air quality and public health. Should you require additional information or clarification, please do not hesitate to contact Helen Rain Waqui, Director of Environmental at hwaqui@pechanga-nsn.gov or 951-770-6153.

Thank you for your attention to this matter.

Sincerely,



Mark Macarro
Tribal Chairman