



COLORADO
Department of Public
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

January 23, 2025

Mark Smith
Regional Administrator
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, Colorado 80202-1129

RE: Colorado Designation Recommendations for 2024 Primary Annual PM2.5 NAAQS

Dear Administrator Becker:

Pursuant to the provisions of section 107(d)(1) of the Clean Air Act, the state of Colorado submits to the Environmental Protection Agency (EPA) the attached area designations for the Primary Annual PM2.5 National Ambient Air Quality Standard (NAAQS), as revised on February 7, 2024. Federal law requires that the state of Colorado submit the recommended designations for the revised Primary Annual PM2.5 NAAQS to the EPA by February 7, 2025, and this letter provides the designations of “attainment” and “attainment/unclassifiable” as applicable for all air quality control regions (AQCRs) in Colorado.

The enclosed table and map describes each Air Quality Control Regions (AQCR) and its designation recommendation along with an enclosed technical support document. The attainment designation for four Colorado AQCRs (02, 03, 04, and 11) and attainment/unclassifiable designations for those areas with limited monitoring are based on validated air quality monitoring data for the 2021-2023 time period. The attainment/unclassifiable designations for areas without representative monitoring are based on the State’s estimation that annual PM2.5 levels in these AQCRs are in compliance with the Primary Annual PM2.5 NAAQS based on the analysis tools currently available. The enclosed area classifications for the 2024 Primary Annual PM2.5 NAAQS were approved by the Colorado Air Quality Control Commission during a public hearing held on January 15, 2025.

The materials have been entered into EPA’s CDX for your review. The Office of the Commission may submit any additional technical support documentation and administrative information needed for review directly to your staff. Should there be any questions regarding these materials, please contact the Commission Office at cdphe.aqcc@state.co.us

Sincerely,

A handwritten signature in black ink, appearing to read "Jill Hunsaker Ryan".

Jill Hunsaker Ryan, MPH
Executive Director
Colorado Department of Public Health and Environment

cc: Jojo La, CDPHE Air Quality Control Commission
Michael Ogletree, CDPHE Air Pollution Control Division
Abby Fulton, EPA Region 8

Enclosures

Air Quality Control Regions Designations 2024 Annual PM2.5 NAAQS Table
2024 Primary Annual PM2.5 Standard Designation Recommendations Technical Support Document

2024 Colorado Designation Recommendations Primary Annual PM2.5 NAAQS (2021-2023 Design Values)	
Air Quality Control Region (AQCR)	PM2.5 NAAQS Designation
State AQCR 01 Logan County Morgan County Phillips County Sedgwick County Washington County Yuma County	Attainment/Unclassifiable
State AQCR 02 Larimer County Weld County	Attainment
State AQCR 03 Adams County Arapahoe County Boulder County Broomfield County Clear Creek County Denver County Douglas County Jefferson County Gilpin County	Attainment
State AQCR 04 El Paso County Park County Teller County	Attainment
State AQCR 05 Cheyenne County Elbert County Kit Carson County Lincoln County	Attainment/Unclassifiable
State AQCR 06 Baca County Bent County Crowley County Kiowa County Otero County Prowers County	Attainment/Unclassifiable
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Table of AQCR Designations 2024 Annual PM2.5 NAAQS
January 2025

2024 Colorado Designation Recommendations Primary Annual PM2.5 NAAQS (2021-2023 Design Values)	
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State AQCR 08 Alamosa County Conejos County Costilla County Mineral County Rio Grande County Saguache County	Attainment/Unclassifiable
State AQCR 09 Archuleta County (part) excluding Southern Ute Indian Tribe (SUIT) lands Dolores County La Plata County (part) excluding SUIT and Ute Mountain Ute Tribe lands Montezuma County (part) excluding SUIT and Ute Mountain Ute Tribe lands San Juan County	Attainment/Unclassifiable
State AQCR 10 Delta County Gunnison County Hinsdale County Montrose County Ouray County San Miguel County	Attainment/Unclassifiable
State AQCR 11 Garfield County Mesa County Moffat County Rio Blanco County	Attainment
State AQCR 12 Eagle County Grand County Jackson County Pitkin County Routt County Summit County	Attainment/Unclassifiable
State AQCR 13 Chaffee County Custer County Fremont County Lake County	Attainment/Unclassifiable

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January 2025

State of Colorado

Technical Support Document

2024 Primary Annual PM_{2.5} Standard Designation Recommendations



January 2025

Colorado Department of Public Health and Environment

Air Pollution Control Division
4300 Cherry Creek Drive South
Denver, Colorado 80246

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Colorado Analysis for 2024 Primary Annual PM_{2.5} Attainment

Designation Recommendation

The State recommends that the entire state of Colorado be designated as attainment or attainment/unclassifiable for the 2024 Primary Annual PM_{2.5} standard. This recommendation is based on monitoring information that indicates the region is in compliance with the revised Primary Annual PM_{2.5} standard promulgated by EPA.

Overview

On February 7, 2024, the U.S. Environmental Protection Agency (EPA) signed final rulemaking that revised the Primary Annual Particulate Matter (PM_{2.5}) National Ambient Air Quality Standard (NAAQS). The PM_{2.5} level has been lowered to 9 µg/m³ annual mean, averaged over 3 years, from the previous level of 12 µg/m³. States are required to submit area designation recommendations to EPA by February 7, 2025. EPA then has until February 7, 2026 to publish final designations for the revised Primary Annual PM_{2.5} NAAQS.

The Air Pollution Control Division (APCD) currently operates nineteen (19) PM_{2.5} monitors in Colorado. All PM_{2.5} monitoring for the most recent 3-year period shows annual values below the level of the NAAQS.

The EPA requires states base their designation recommendations on valid monitoring data results over a three-year period for calendar years 2021 - 2023. Fourteen (14) of Colorado's PM_{2.5} monitors have valid three-year averages reported to the EPA Air Quality System (AQS) database. Based on the valid 2021 - 2023 results, Colorado is in attainment for the revised standard. The following analysis discusses air quality data necessary to demonstrate that Colorado should be designated as attainment or attainment/unclassifiable for the revised Primary Annual PM_{2.5} NAAQS. It must also be noted that this attainment demonstration applies only to non-tribal lands over which the State of Colorado has direct air quality jurisdiction.

Air Quality Data

The air quality analysis looked at monitoring sites with valid 3-year annual averages for PM_{2.5} standard in Colorado for 2021 through 2023. The fourteen APCD PM_{2.5} monitoring sites reported in AQS are shown in Blue in Figure 1. Sites utilized by EPA for PM_{2.5} speciation are also shown in green.

Figure 1. Map of Colorado PM_{2.5} Ambient Air Monitoring Sites 2023

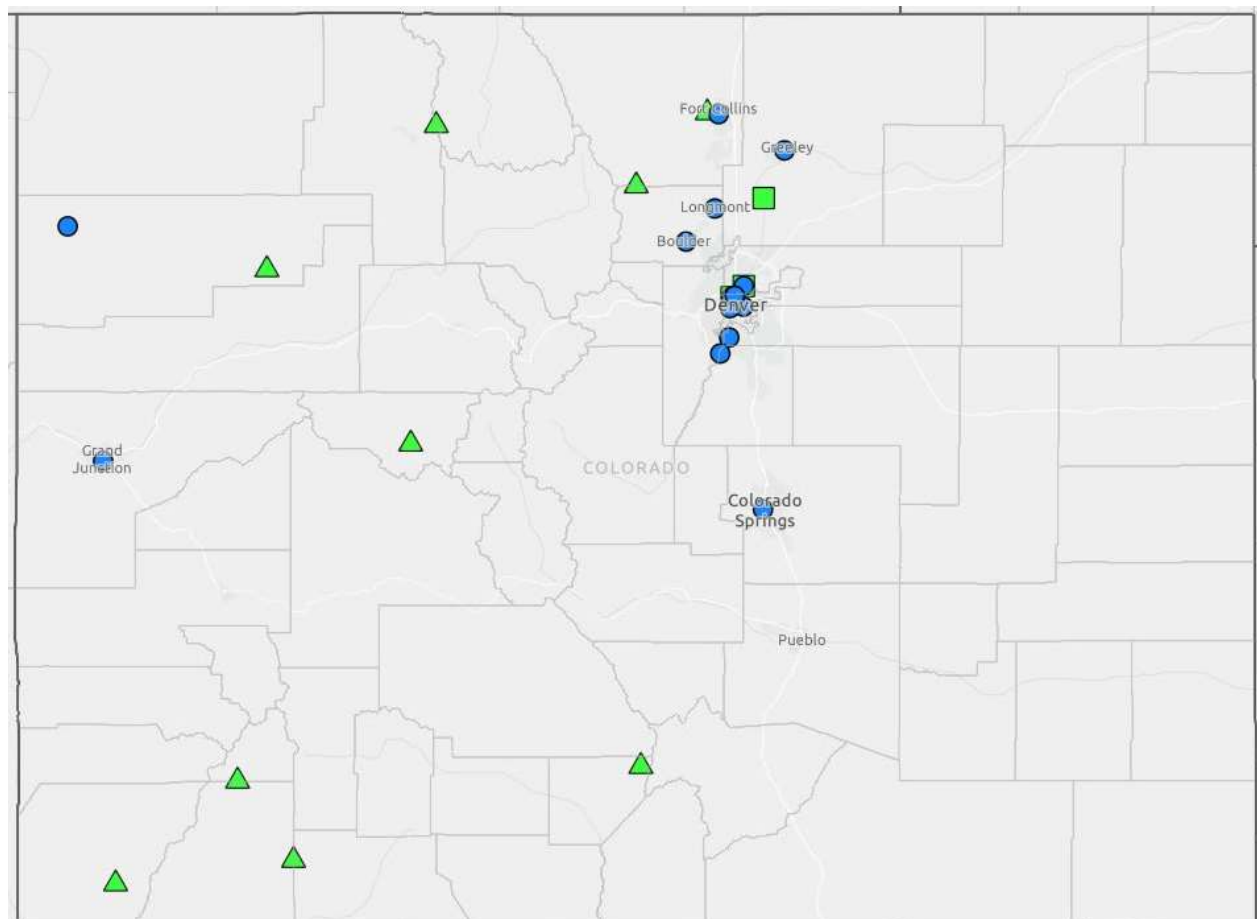
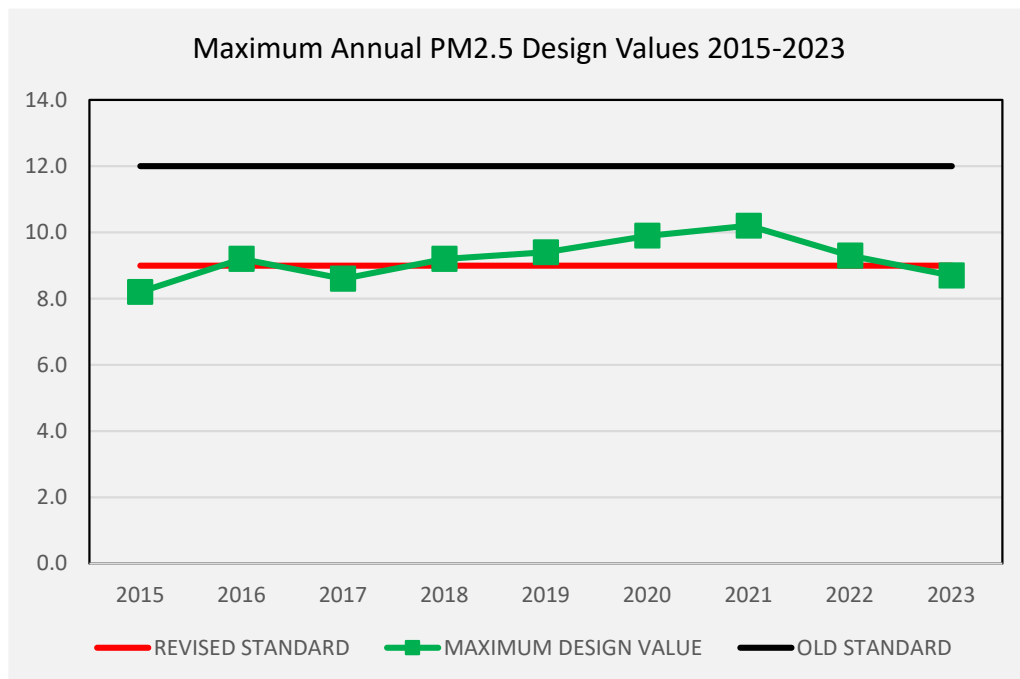


Figure 2 presents long term trends for the APCD PM_{2.5} sites reported to the AQS in 2023. Annual PM_{2.5} design values have decreased at all sites since 2021 and are all currently below the 2024 Annual PM_{2.5} NAAQS.

This decrease is likely due to emissions reductions from vehicles as well as major stationary sources and area sources that have occurred in recent years. These emissions reductions are expected to be maintained as a result of regulatory and statutory requirements for Ozone, Regional Haze, and Greenhouse Gases applicable in Colorado.

Figure 2. Colorado Annual PM_{2.5} Ambient Air Concentration Trends



The statewide maximum Annual PM_{2.5} design values for 2015 to 2023 are presented in Table 1.

Table 1. Colorado 3 year Maximum Annual PM_{2.5} Monitoring Data Summary

Year	Statewide Maximum (µg/m³)	Location
2013-2015	8.2	Rangely Golf Course
2014-2016	9.2	I-25
2015-2017	8.6	I-25
2016-2018	9.2	Globeville
2017-2019	9.4	Globeville
2018-2020	9.9	Globeville
2019-2021	10.2	Globeville
2020-2022	9.3	Globeville
2021-2023	8.7	Globeville

Table 2. AQS Monitoring Site Design Value Summary 2015-2023

County Name	Local Site Name	2013-2015 ($\mu\text{g}/\text{m}^3$)	2014-2016 ($\mu\text{g}/\text{m}^3$)	2015-2017 ($\mu\text{g}/\text{m}^3$)	2016-2018 ($\mu\text{g}/\text{m}^3$)	2017-2019 ($\mu\text{g}/\text{m}^3$)	2018-2020 ($\mu\text{g}/\text{m}^3$)	2019-2021 ($\mu\text{g}/\text{m}^3$)	2020-2022 ($\mu\text{g}/\text{m}^3$)	2021-2023 ($\mu\text{g}/\text{m}^3$)
Adams	Birch Street									8.5
Arapahoe	Arapahoe Community College	6.3	5.9	5.9	6.0	6.1	6.1	6.4	6.1	5.9
Boulder	Longmont - Municipal Building	7.0	6.9	6.7	6.9	6.9	7.6	8.4	8.1	7.3
Boulder	Boulder Chamber Of Commerce	5.9	5.6	5.5	5.8	6.0	6.2	6.5	6.1	5.5
Denver	Denver - National Jewish Health							7.7	7.5	6.9
Denver	La Casa	7.5	7.2	7.0	7.1	7.2	7.3	7.5	7.2	6.6
Denver	I-25		9.2	8.6	8.0	8.1	8.3	8.5	7.6	7.4
Denver	Globeville				9.2	9.4	9.9	10.2	9.3	8.7
Douglas	Chatfield State Park	5.5	5.2	5.3	5.7	5.8	5.9	6.1	5.8	5.5
El Paso	Colorado Springs - College	5.7	5.6	5.7	6.0	5.7	5.7	5.6	5.5	5.3
Larimer	Fort Collins - CSU - Edison	6.8	6.8	7.1	7.3	7.0	7.2	7.5	7.7	7.1
Mesa	Grand Junction - Powell Building	7.4	6.6	6.1	5.9	5.5	5.7	5.8	5.8	5.3
Rio Blanco	Rangely Golf Course	8.2	7.8	7.8	7.9	8.0	8.3	8.6	8.5	7.2
Weld	Greeley - Hospital	7.3			9.1	9.1	9.5	9.5	8.8	8.1

Summary Conclusions

The data and analysis presented provide documentation and compelling evidence supporting a finding that Colorado should be designated as attainment or attainment/unclassifiable for the 2024 revised Primary Annual PM2.5 NAAQS. It is important to note that only areas over which Colorado has direct air quality jurisdiction are included in this attainment attainment/unclassifiable finding and recommendation. The Southern Ute Indian Tribe, and the Southern Ute Indian Tribe/State of Colorado Environmental Commission, as well as the Ute Mountain Ute Indian Tribe, are distinct nations or entities and consequently such Tribal lands are not included in this designation recommendation.

Table 3 provides a complete listing of the recommended designations, by area. Figure 3 provides a map of the Air Quality Control Regions for the Annual PM2.5 Designation Recommendations in Colorado. These recommendations are based on monitoring information that indicates compliance with the revised standard.

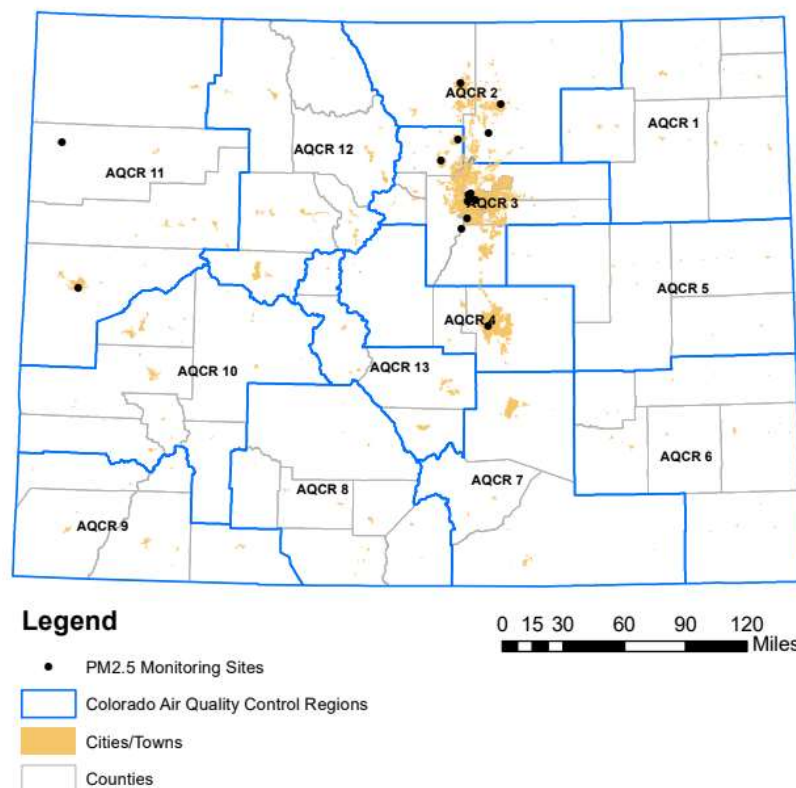
Table 3. Recommended 2024 Primary Annual PM2.5 Designations by Region for Colorado

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Figure 3. Map of Air Quality Control Regions for Annual PM2.5 Designations in Colorado



Colorado Department of Public Health and Environment - Air Pollution Control Division - November 2024