

STATE OF COLORADO

John W. Hickenlooper, Governor
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Executive Director and Chief Medical Officer

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

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Colorado Department
of Public Health
and Environment

January 27, 2014

Shaun McGrath
Regional Administrator
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

RE: 2013 Colorado Designations for Annual PM2.5 NAAQS

Dear Mr. McGrath:

Pursuant to the provisions of section 107(d)(1) of the Clean Air Act, the state of Colorado submits to the Environmental Protection Agency the attached area designations for the Annual PM2.5 National Ambient Air Quality Standard (NAAQS), as revised on December 14, 2012. Federal law requires that the state of Colorado submit the recommended designations for the revised Annual PM2.5 NAAQS to the EPA by December 12, 2013, and this letter provides the designations of "attainment" and "attainment/unclassifiable" as applicable for all air quality control regions (AQCRs) in Colorado.

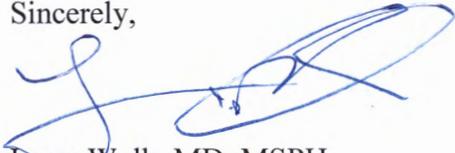
The enclosed table and map describes each AQCR and its designation along with an enclosed technical support document that provides supporting analysis. The technical support document makes a strong case that these designation recommendations are accurate and supportable for EPA approval. The attainment designation for six Colorado AQCRs (02, 03, 04, 07, 09 and 11) and attainment/unclassifiable designations for those areas with limited monitoring are based on actual air quality monitoring data for the 2010-2012 time periods. The attainment/unclassifiable designations for areas lacking representative monitoring are based on the state's estimation that Annual PM2.5 levels in these AQCRs are not out of compliance with the Annual PM2.5 NAAQS.

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RA's Office

JAN 29 2014

The enclosed area classifications for the 2012 Annual PM2.5 NAAQS were approved by the Colorado Air Quality Control Commission following a public hearing held on October 17, 2013. If you have any questions regarding this submittal, please contact Mike Silverstein, Administrator for the Commission, at (303) 692-3478, or William Allison, Director of the Air Pollution Control Division, at (303) 692-3114.

Sincerely,

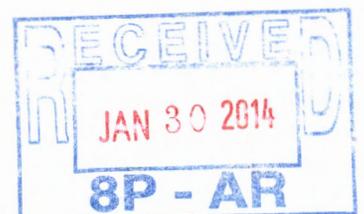


Larry Wolk, MD, MSPH
Executive Director

cc: Mike Silverstein, Administrator AQCC
Garry Kaufman, Deputy Division Director APCD

Enclosures

- Colorado Designations for Annual 2012 PM2.5 NAAQS – Table and Map
- State of Colorado, Technical Support Document, For Recommended Annual PM2.5 Designations

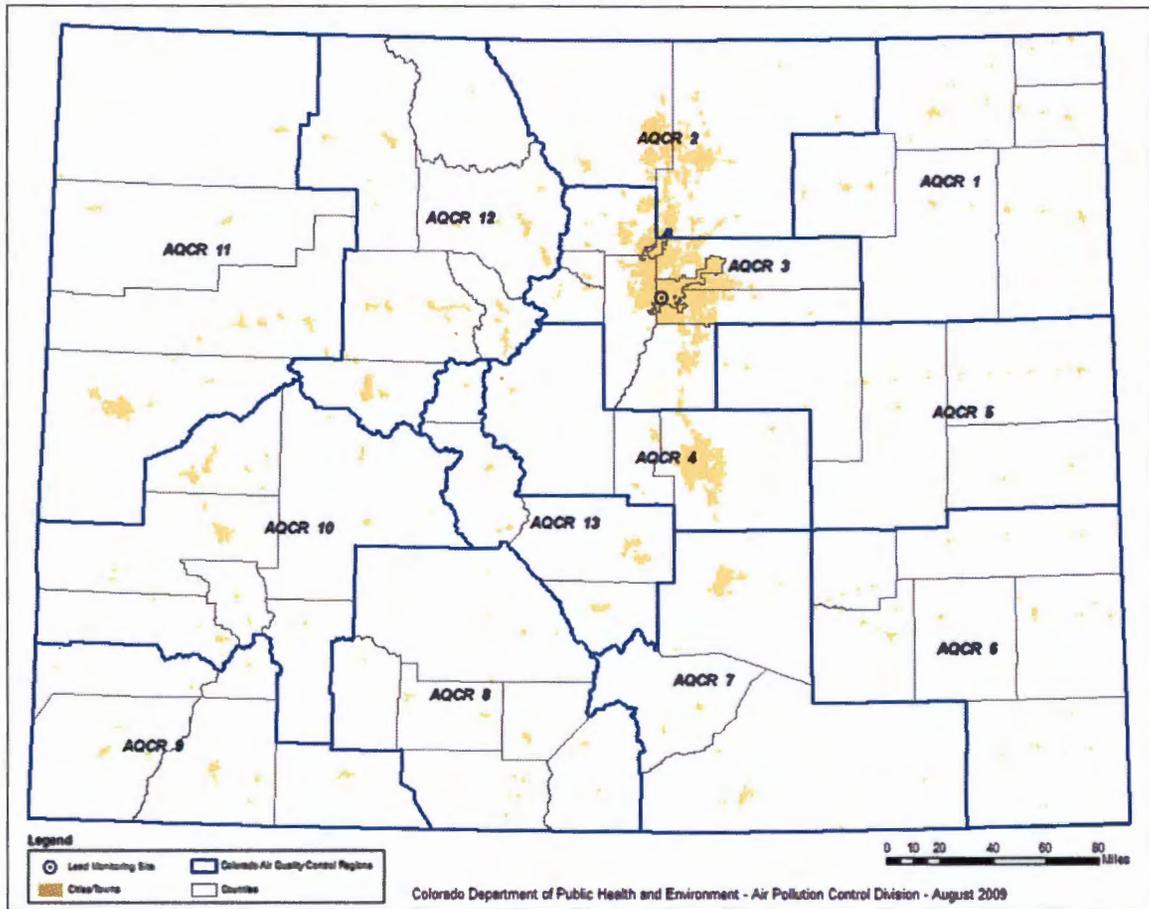


Colorado Designations for 2012 Annual PM2.5 NAAQS (based on 2010-2012 monitoring data)	
Air Quality Control Regions (AQCR)	PM2.5 NAAQS Designation
State AQCR 01 Logan County Morgan County Phillips County Sedgwick County Washington County Yuma County	Attainment/Unclassifiable
State AQCR 02 Larimer County Weld County	Attainment
State AQCR 03 Adams County Arapahoe County Boulder County (including the portion of Rocky Mountain National Park therein) 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
State AQCR 07 Huerfano County Las Animas County Pueblo County	Attainment

Table of AQCR Designations 24-Hour PM2.5 NAAQS

November 6, 2013

Colorado Designations for 2012 Annual PM2.5 NAAQS (based on 2010-2012 monitoring data)	
Air Quality Control Regions (AQCR)	PM2.5 NAAQS Designation
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
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



Map of Air Quality Control Regions for Annual PM_{2.5} Designations in Colorado.

State of Colorado

Technical Support Document For 2012 Annual PM_{2.5} Standard Attainment In Colorado



November 6, 2013

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 Annual PM2.5 Attainment

Designation Recommendation

The State recommends that the entire state of Colorado be designated as attainment or attainment/unclassifiable for the 2012 revised Annual PM 2.5 standard. This recommendation is based on monitoring information that indicates the region is in compliance with the revised Annual PM2.5 standard.

Overview

On December 14, 2012, the U.S. Environmental Protection Agency (EPA) signed final rulemaking that revises the Primary Annual Particulate Matter (PM2.5) National Ambient Air Quality Standard (NAAQS). The PM2.5 level has been lowered to 12 $\mu\text{g}/\text{m}^3$ annual mean, averaged over 3 years. States are required to submit area designations to EPA by December 12, 2013.

The Air Pollution Control Division (APCD) currently operates 16 PM2.5 monitors in Colorado, (8 sites in the Denver Metro Area, 3 sites in the North Front Range, 3 sites in the South Front Range, and 2 sites on the West Slope). All PM2.5 monitoring for the most recent 3-year period shows annual values well below the level of the NAAQS. Thus, the APCD is proposing that Colorado be designated as attainment/unclassifiable for the entire state (excluding tribal lands over which the APCD has no jurisdiction).

The EPA requires states base their designations on monitoring data results over a three year period for calendar years 2010 - 2012. Based on the 2010-2012 results, Colorado is in attainment of the new standard. The following analysis discusses air quality data as necessary to demonstrate that Colorado should be designated as attainment or attainment/unclassifiable for the new Annual PM2.5 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 all known monitoring sites for the annual PM2.5 standard in Colorado for 2010 through 2012. A map of the 16 APCD PM2.5 monitoring sites is shown in Figure 1. Other, non-APCD sites are also shown in Figure 1.

Figure 2 presents long term trends for the APCD PM2.5 sites. It is evident that ambient annual PM2.5 levels have decreased over time. Much of this decrease is likely due to emissions reductions in vehicles and major stationary sources as well as local constraints on wood burning stoves.

The 3-year average Annual PM2.5 data for 2010 to 2012 are presented in Table 1.

Figure 1. Map of Colorado PM2.5 Ambient Air Monitoring Sites 2013.

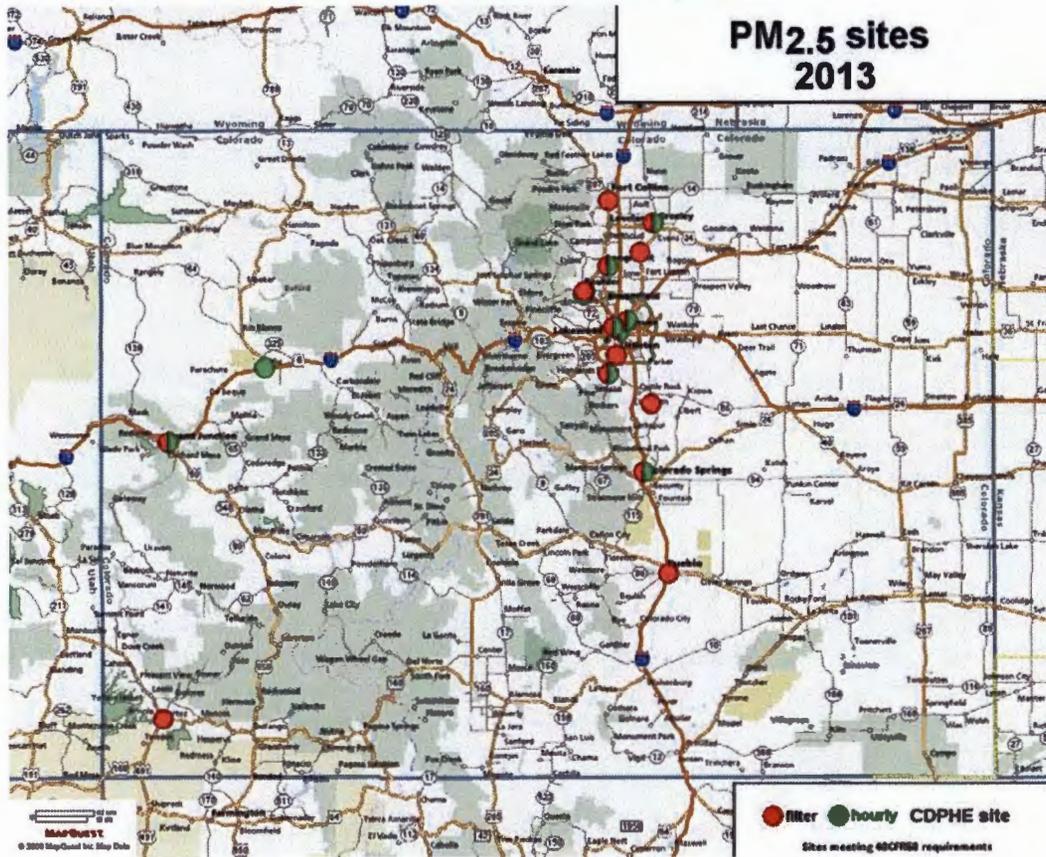


Figure 2. Colorado Annual PM2.5 Ambient Air Concentration Trends.

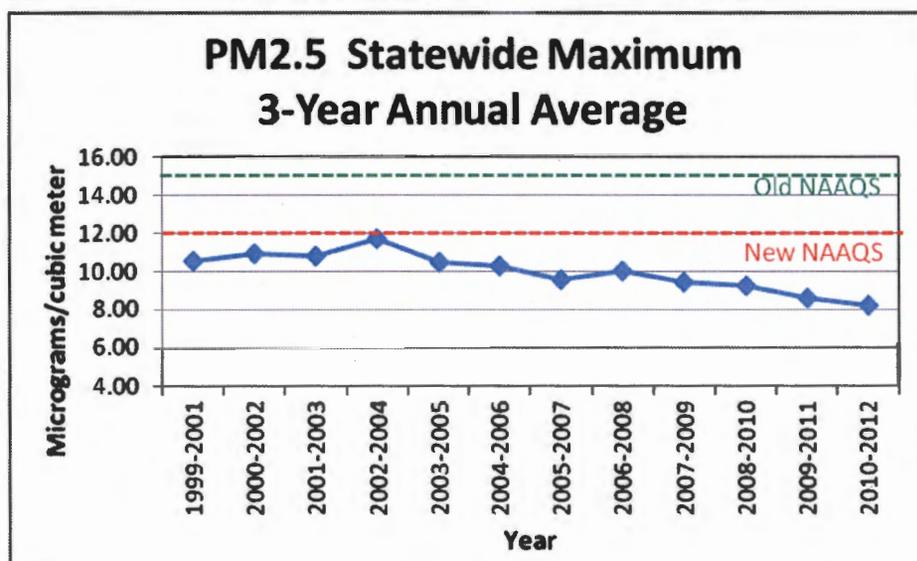


Table 1. Colorado 3 year average Annual PM2.5 Monitoring Data Summary.

Year	Statewide Maximum ($\mu\text{g}/\text{m}^3$)	Location
1999-2001	10.53	Adams City
2000-2002	10.93	Denver-CAMP
2001-2003	10.83	Denver-CAMP
2002-2004	11.71	Grand Jct-Powell
2003-2005	10.51	Grand Jct-Powell
2004-2006	10.29	Denver-Swansea
2005-2007	9.60	Commerce-Alsup
2006-2008	10.02	Commerce-Alsup
2007-2009	9.44	Grand Jct-Powell
2008-2010	9.28	Grand Jct-Powell
2009-2011	8.61	Grand Jct-Powell
2010-2012	8.21	Commerce-Alsup

Table 2. Denver-Boulder Area 3-year average Annual PM2.5 Monitoring Data Summary.

Year	Boulder Chamber	Denver CAMP	Denver Swansea	Denver DMAS	Chatfield	Adams City	Commerce Alsup	Arapahoe Comm. Coll.
	08-013-0012	08-031-0002	08-031-0023	08-031-0025	08-035-0004	08-001-0001	08-001-0006	08-005-0005
1999-2001	7.83	10.37				10.53		8.77
2000-2002	8.27	10.93						8.83
2001-2003	8.03	10.83					10.67	8.77
2002-2004	7.47	9.99					10.47	8.35
2003-2005	7.07	9.72					9.84	8.65
2004-2006	6.81	9.04	10.29		5.24		9.34	8.36
2005-2007	7.04	9.05	8.85		6.25		9.60	8.51
2006-2008	6.87	8.63	8.22		6.32		10.02	7.64
2007-2009	6.77	8.32	8.71	8.37	6.16		9.43	7.24
2008-2010	6.49	7.80	7.90	7.64	5.75		8.72	6.71
2009-2011	6.27	7.62	7.51	7.25	5.68		8.08	6.29
2010-2012	6.30	7.80	7.59	7.57			8.21	6.40

Table 3. North Front Range Area 3-year average Annual PM2.5 Monitoring Data Summary.

Year	Longmont	Ft Collins CSU	Greeley Hospital	Plateville
	08-013-0003	08-069-0009	08-123-0006	08-123-0008
1999-2001	9.20	8.10	8.67	9.23
2000-2002	9.50	8.20	9.10	9.57
2001-2003	9.37	7.87	9.03	9.60
2002-2004	8.92	7.56	8.51	8.82
2003-2005	8.52	7.32	8.15	8.49
2004-2006	8.14	7.32	8.08	8.61
2005-2007	8.25	7.42	8.36	9.29
2006-2008	8.19	7.31	8.36	9.30
2007-2009	7.96	7.13	8.24	8.68
2008-2010	7.37	6.64	7.61	7.79
2009-2011	6.92	6.32	7.26	7.50
2010-2012	6.89	6.57	7.35	7.80

Table 4. South Front Range Area 3-year average Annual PM2.5 Monitoring Data Summary.

Year	Colo Spg Meadow	Colo Spg RBD	Colo Spgs Colorado College	Pueblo Public Works	Pueblo Fountain Magnet School	Elbert
	08-041-0008	08-041-0011	08-041-0017	08-101-0012	08-101-0015	08-039-0001
1999-2001	7.03	7.40		7.70		4.03
2000-2002	6.97	7.70		8.03		4.27
2001-2003	6.97	7.83		7.97		4.43
2002-2004	6.76	8.08		7.39		4.36
2003-2005	6.76	8.05		7.19		4.46
2004-2006	6.73	8.10		7.56		4.29
2005-2007		7.77		7.79		4.55
2006-2008		7.80		7.82		4.42
2007-2009				7.40		4.35
2008-2010			5.97			4.17
2009-2011			5.88		5.65	4.00
2010-2012			6.40		6.29	4.05

Table 5. Western Colorado 3-year average Annual PM2.5 Monitoring Data Summary.

Year	Mt Cr Butte Town Ctr	Durango School	Grand Jct MCHD	Grand Jct Powell	Cortez	Telluride
	08-051-0005	08-067-0008	08-077-0003	08-077-0017	08-083-0006	08-113-0004
1999-2001	6.25	4.85	7.33			
2000-2002	6.50	5.23	7.73			5.80
2001-2003	6.93	5.70	7.83			5.67
2002-2004	6.64			11.71		5.05
2003-2005	6.34			10.51		4.82
2004-2006				9.51		8.55
2005-2007				9.20		
2006-2008				9.43		
2007-2009				9.44		
2008-2010				9.28	6.25	
2009-2011				8.61	6.29	
2010-2012				7.80	5.91	

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 2012 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 specifically excluded from this designation recommendation.

Table 6 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 Designations in Colorado. These recommendations are based on monitoring information that indicates compliance with the revised standard.

Table 6. Recommended Annual PM2.5 Designations by Area for Colorado

2013 Colorado Designations for Annual PM2.5 NAAQS (based on 2010-2012 monitoring data)	
Air Quality Control Regions (AQCR)	PM2.5 NAAQS Designation
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State AQCR 04 El Paso County Park County Teller County	Attainment

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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

2013 Colorado Designations for Annual PM2.5 NAAQS (based on 2010-2012 monitoring data)	
Air Quality Control Regions (AQCR)	PM2.5 NAAQS Designation
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

Figure 3. Map of Air Quality Control Regions for Annual PM_{2.5} Designations in Colorado

