STATE OF ARIZONA

JANICE K. BREWER
GOVERNOR

EXECUTIVE OFFICE

March 23, 2010

Jared Blumenfeld, Regional Administrator
Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

SUBJECT: Pinal County PM_{10} and $PM_{2.5}$ Area Designation Recommendations

Dear Mr. Blumenfeld:

Pursuant to Section 107(d) of the Clean Air Act, Arizona hereby submits the following designation recommendations for the National Ambient Air Quality Standards (NAAQS) for particulate matter 10 microns and smaller in size (PM_{10}) and 2.5 microns and smaller in size ($PM_{2.5}$) in Pinal County.

Twenty Four Hour PM_{10} Designation Recommendation

Arizona is recommending those portions of Pinal County described below as the nonattainment planning area for the 24-hour PM_{10} NAAQS. This area excludes Indian Country in the affected portion of Pinal County. Arizona, however, is aware of existing EPA policy which requires that "reclassification must not result in an illogical or excessive discontinuity relative to surrounding areas... [and] should not create a "donut hole where an area of one classification is surrounded by areas of higher classification." (See 69 FR 23858 at 23863). Arizona notes that the recommended area does not completely surround the sovereign Indian Reservation but anticipates that EPA will review the Indian Communities for potential inclusion in the nonattainment areas and do so in a manner consistent with EPA's tribal consultation policy.

An enclosed map illustrates the following recommended nonattainment planning area:

T1S, R8E
T2S, R8E
T3S, R7E
T3S, R8E

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T4S, R3E-R4E (excluding all lands within the Gila River and Ak-Chin Indian Communities)
T4S, R8E (excluding all lands within the Gila River Indian Community)
T5S, R3E (excluding all lands within the Ak-Chin Indian Community)
T5S, R4E – R8E (excluding all lands within the Gila River and Ak-Chin Indian Communities)

T6S, R3E – R8E
T7S, R3E – R8E Sections 1-6

Annual $PM_{2.5}$ Designation

Arizona objects to EPA's approach to designations for the annual $PM_{2.5}$ NAAQS. According to the October 14, 2009, letter from Laura Yoshii to me, EPA has initiated redesignation of "...Pinal County and nearby areas..." as nonattainment based upon data from a single monitor located immediately adjacent to a known localized "hot spot" of PM emissions. The data from the entire $PM_{2.5}$ monitoring network in the State, with the exception of Nogales, demonstrate attainment of the annual $PM_{2.5}$ NAAQS. There is no legal or scientific basis for EPA to find the emissions from Pinal County or surrounding areas may cause or contribute to concentrations that violate the annual $PM_{2.5}$ NAAQS at the Cowtown monitor.

The use of monitoring data collected by the Cowtown monitor to determine compliance with the annual PM2.5 NAAQS is contrary to EPA's own regulations. Cowtown was sited as a "hot spot" monitor to measure ambient air quality affected by nearby PM sources. The regulations governing interpretation of monitoring data, at 40 CFR § 58.30(a)(1), state:

> $PM_{2.5}$ data that are representative, not of area-wide but rather, of relatively unique population-oriented microscale, or *localized hot spot*, or unique population-oriented middle-scale impact sites *are only eligible for comparison to the 24-hour $PM_{2.5}$ NAAQS.* (Emphasis added.)

Consequently, EPA cannot lawfully promulgate an annual $PM_{2.5}$ NAAQS designation based on exceedances measured at the Cowtown monitor. Because this is the only monitoring site where violations of the $PM_{2.5}$ NAAQS have been recorded in Pinal County or nearby areas, the only justifiable designation under the annual $PM_{2.5}$ NAAQS is attainment/unclassifiable. Arizona looks forward to EPA's proper use of these data in a future request for the State's recommendation on the boundary for the 24-hour $PM_{2.5}$ nonattainment area, as required by Section 107 of the federal Clean Air Act and as described in the letter from Laura Yoshii.

There is overwhelming evidence that the exceedances of the $PM_{2.5}$ NAAQS in Pinal County are an artifact of high concentrations of PM_{10}. A technical analysis of the relationship between PM_{10} and $PM_{2.5}$ concentrations will be transmitted under separate cover by Benjamin H. Grumbles, Director of the Arizona Department of Environmental Quality (ADEQ). Arizona is mindful that violations of the NAAQS are a threat to the health and well being of our citizens living in such areas and has a record of developing Plans that effectively cure those violations in rural Arizona. ADEQ has already been collaborating with Pinal County on the fundamental work necessary to prepare an approvable revision to the State Implementation Plan for PM_{10} in Pinal County. Therefore, a nonattainment designation for the annual $PM_{2.5}$ NAAQS is not necessary to protect public health.

In addition, air quality has improved significantly in the area of the Cowtown monitor. A declining trend in annual average $PM_{2.5}$ concentrations recorded by the Cowtown monitor has been evident in each consecutive year since operation of the monitor began in 2006. The annual average in 2006 was 24.6 micrograms per cubic meter (µg/m3); in 2009 the annual average at the Cowtown monitor had dropped to14.09 µg/m3, a 43 percent decrease. The two remaining PM2.5 monitors in Pinal County, located in the cities of Casa Grande and Apache Junction, are not close to violating the annual PM2.5 NAAQS with three-year annual averages of 9.5 and 6.6 µg/m3, respectively.

While not the subject of this redesignation process, EPA should note that monitoring data collected by Pinal County also reveal a sharp decline in 24-hour concentrations. In 2007, the 98th percentile value at Cowtown was 53.9µg/m3; in 2009, the 98th percentile had dropped to 24µg/m3, a 56 percent decrease. The trend indicates that voluntary control measures implemented at nearby PM sources have had a positive impact on air quality in that area.

Arizona is committed to continuing these positive trends for cleaner air, through a range of tools and incentives, working in collaboration with citizens, local and State agencies and EPA. If you have any questions, please contact Mr. Grumbles at (602) 771-2203 or Henry R. Darwin, ADEQ Deputy Director at (602) 771-2328.

Sincerely,

Janice K. Brewer
Governor

Enclosure

TABLE 1.—CLASSIFICATION FOR 8-HOUR OZONE NAAQS

Area class		8-hour design value ppm ozone)	Maximum period for Attainment dates in State plans (years after effective date of nonattainment designation for 8-hour NAAQS)
Marginal	from	0.085	3
	up to*	0.092	
Moderate	from	0.092	6
	up to*	0.107	
Serious	from	0.107	9
	up to*	0.120	
Severe-15	from	0.120	15
	up to*	0.127	
Severe-17	from	0.127	17
	up to*	0.187	
Extreme	equal to or above	0.187	20

*But not including.

Five Percent Bump Down

Under section 181(a)(4), an ozone nonattainment area may be reclassified "if an area classified under paragraph (1) (Table 1) would have been classified in another category if the design value in the area were 5 percent greater or 5 percent less than the level on which such classification was based." The section also states that "In making such adjustment, the Administrator may consider the number of exceedances of the national primary ambient air quality standard for ozone in the area, the level of pollution transport between the area and other affected areas, including both intrastate and interstate transport, and the mix of sources and air pollutants in the area.

As noted in the November 6, 1991, FR on designating and classifying areas, the section 181(a)(4) provisions grant the Administrator broad discretion in making or determining not to make, a reclassification (56 FR 56698). As part of the 1991 action, EPA developed criteria (*see* list below) to evaluate whether it is appropriate to reclassify a particular area. In 1991, EPA approved reclassifications when the area met the first requirement (a request by the State to EPA) and at least some of the other criteria and did not violate any of the criteria (emissions, reductions, trends, etc.). We intend to use this method and these criteria once again to evaluate reclassification requests under section 181(a)(4), with the minor changes noted below. Because section 181(b)(3) provides that an area may request a higher classification and EPA must grant it, these criteria primarily focus on how we will assess requests for a lower classification. We further discuss bump ups below.

Request by State: The EPA does not intend to exercise its authority to bump down areas on EPA's own initiative. Rather, EPA intends to rely on the State to submit a request for a bump down. A Tribe may also submit such a request and, in the case of a multi-state nonattainment area, all affected States must submit the reclassification request.

Discontinuity: A five percent reclassification must not result in an illogical or excessive discontinuity relative to surrounding areas. In particular, in light of the area-wide nature of ozone formation, a reclassification should not create a "donut hole" where an area of one classification is surrounded by areas of higher classification.

Attainment: Evidence should be available that the proposed area would be able to attain by the earlier date specified by the lower classification in the case of a bump down.

Emissions reductions: Evidence should be available that the area would be very likely to achieve the appropriate total percent emission reduction necessary in order to attain in the shorter time period for a bump down.

Trends: Near- and long-term trends in emissions and air quality should support a reclassification. Historical air quality data should indicate substantial air quality improvement for a bump down. Growth projections and emission trends should support a bump down. In addition, we will consider whether vehicle miles traveled and other indicators of emissions are increasing at higher than normal rates.

Years of data: For the 8-hour ozone standard, the 2001–2003 period is central to determining classification. This criterion has been updated to reflect the latest air quality data available to make the determinations within the statute's 90 day limitation.

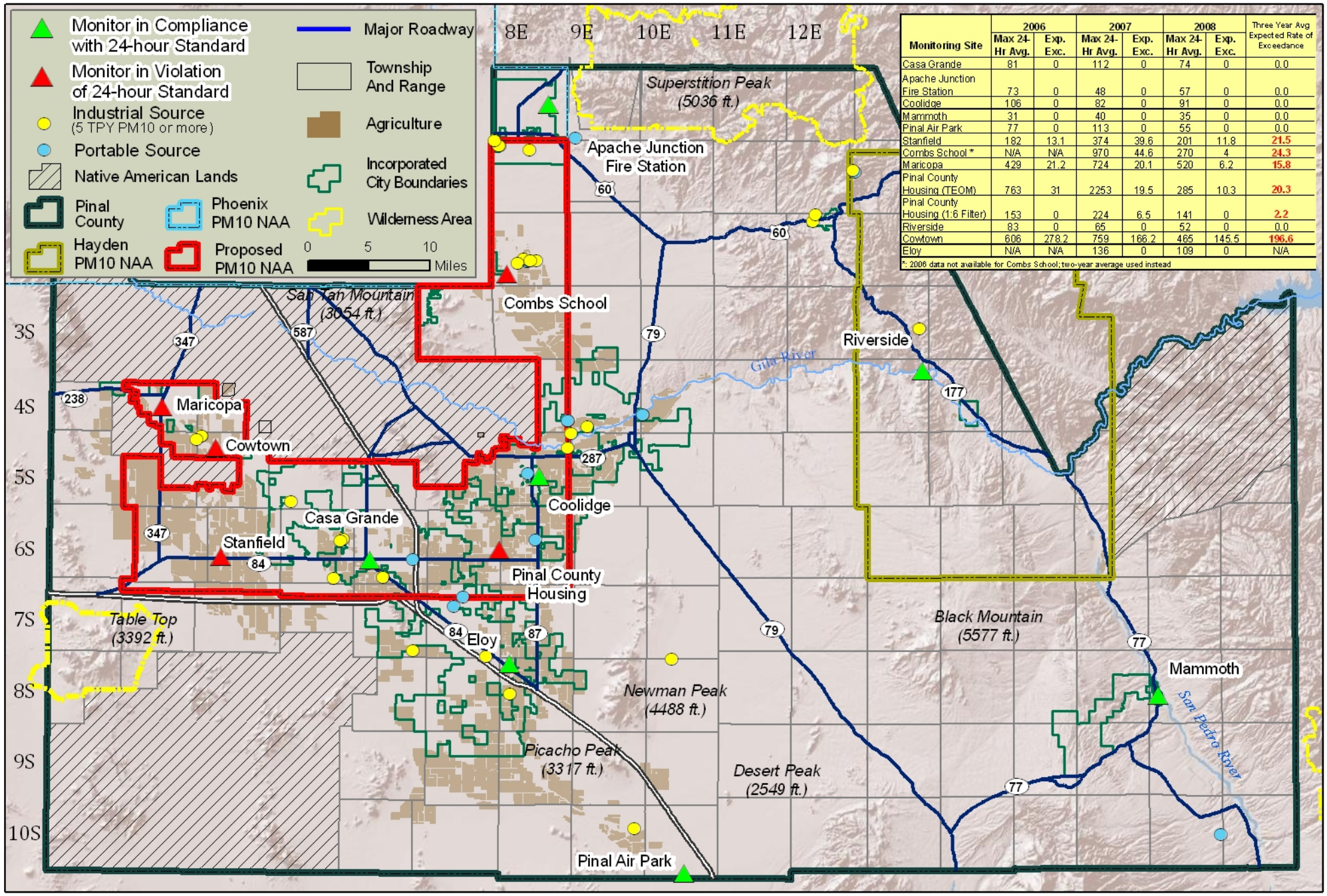
Limitations on Bump Downs

An area may only be reclassified to the next lower classification. An area cannot present data from other years as justification to be reclassified to an even lower classification. In addition, section 181(a)(4) does not permit moving areas from subpart 2 into subpart 1.

The EPA applied these criteria in 1991. For example, our action to bump down one area from severe to serious considered trends in population and emissions data, similarities to a nearby serious area, disparity with a nearby moderate area, the logical gradation of attainment deadlines proceeding outward from large metropolitan areas upwind, and the likelihood that the area would be able to attain the NAAQS in the shorter time frame. In approving a bump down to marginal, we noted that air quality trends showed improvement and recent air quality data indicated a marginal status. In denying a bump down, we analyzed local air quality trends and emission sources and considered long range transport from an area with a much later attainment deadline, which together made it unlikely the candidate area could attain the standard in the shorter time frame associated with the lower classification. Requests to bump down areas were also denied due, in part, to concern that transport of emissions from these areas would make it less likely that downwind nonattainment areas could attain the standards in a timely fashion. For additional information, see section 5, "Areas requesting a 5% downshift per § 181(a)(4) and EPA's response to those requests," of the Technical Support Document, October 1991 for the 1991 rule. [Docket A–90–42A.]

Recommended Pinal County PM_{10} Nonattainment Area Boundaries

ADEQ Arizona Department of Environmental Quality
Janice K. Brewer, Governor
Benjamin H. Grumbles, Director



Monitoring Site	2006 Max 24-Hr Avg.	2006 Exp. Exc.	2007 Max 24-Hr Avg.	2007 Exp. Exc.	2008 Max 24-Hr Avg.	2008 Exp. Exc.	Three Year Avg Expected Rate of Exceedance
Casa Grande	81	0	112	0	74	0	0.0
Apache Junction Fire Station	73	0	48	0	57	0	0.0
Coolidge	106	0	82	0	91	0	0.0
Mammoth	31	0	40	0	35	0	0.0
Pinal Air Park	77	0	113	0	55	0	0.0
Stanfield	182	13.1	374	39.6	201	11.8	21.5
Combs School *	N/A	N/A	970	44.6	270	4	24.3
Maricopa	429	21.2	724	20.1	520	6.2	15.8
Pinal County Housing (TEOM)	763	31	2253	19.5	285	10.3	20.3
Pinal County Housing (1:6 Filter)	153	0	224	6.5	141	0	2.2
Riverside	83	0	65	0	52	0	0.0
Cowtown	606	278.2	759	166.2	465	145.5	196.6
Eloy	N/A	N/A	136	0	109	0	N/A

*: 2006 data not available for Combs School; two-year average used instead

12 March 2010

Data and Cartography: Juan Declet & Phil Denee, Nancy Caroli, AQD-ADEQ