

## Office of the Governor

March 12, 2009

Ms. Carol Rushin  
Acting Regional Administrator  
USEPA Region 8  
Mail Code: 8P-AR  
1595 Wynkoop Street  
Denver, CO 80202-1129

RE: Wyoming 8-Hour Ozone Designation Recommendation

Dear Ms. Rushin:

This letter transmits my recommendations, as allowed for under Section 107(d)(1) of the Clean Air Act, for Wyoming area designations and nonattainment area boundaries for the new eight-hour ozone National Ambient Air Quality Standards. These recommendations are based on a Wyoming Department of Environmental Quality (WDEQ) staff analysis which follows EPA's guidance dated December 4, 2008, "Area Designations for the 2008 Revised Ozone National Ambient Air Quality Standards."

At this time, I am recommending that all areas of the State of Wyoming be designated as attainment/unclassifiable with respect to the 8-hour ozone standard except for Sublette County and partial sections of Sweetwater and Lincoln counties. Enclosed with this letter is a table listing all specific areas of the state with their corresponding recommended designations, along with a figure showing the boundary of the nonattainment area, and ozone monitoring data collected through 2008.<sup>1</sup> The technical support document, which includes a 9-Factor Analysis, is being sent by the Director of the Department of Environmental Quality under separate cover.

Elevated ozone in a truly rural environment when temperatures are well below freezing is an uncommon event. As we move forward to solve this problem, we are uniquely challenged by the lack of tools available to understand and predict ozone formation in the winter in a valley flanked by the Wind River Mountains.

The State of Wyoming is also challenged by the need to reduce emissions from the natural gas industry which has not traditionally been regulated for ozone nonattainment problems. While the EPA has a long list of control strategies to apply in nonattainment areas, very few of them will

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<sup>1</sup> The recommendation does not extend to lands under the jurisdiction of Tribal Authority.

help to reduce ozone in Sublette County. Lowest Achievable Emissions Rate (LAER), Reasonably Available Control Technology (RACT), major source offsets, transportation control measures, and clean fuels programs are designed to reduce emissions from very large industrial sources and urban traffic which are not present in rural Wyoming. Therefore, the WDEQ has already identified the sources that require controls such as drill rigs, pneumatic pumps, dehydration units, and small heaters.

The State is not waiting for the nonattainment process to unfold to tackle the problem, but is addressing the issue on several fronts:

- Several significant field studies have been initiated to understand the processes leading to the occurrence of high ozone levels and to precisely define meteorological conditions that exist when these ozone events occur. These field operations began in 2007 and have continued through the winter of 2009.
- The AQD has deployed more Federal Reference Monitors in southwest Wyoming.
- DEQ is working with contractors to develop models to replicate the high wintertime ozone concentrations observed in the Upper Green.
- The University of Wyoming is conducting an ozone and precursor sampling program in 2009 to provide an independent perspective and further information on spatial variability of ozone in the Basin.
- The DEQ, the Wyoming Department of Health and the Sublette County Commissioners are working together to assess public health risks posed by air toxics associated with natural gas development. A study is now underway.
- The Air Quality Division has moved aggressively to reduce air pollution by applying BACT to all well sites in the Jonah and Pinedale Anticline gas fields, as well as a minor source offset permitting program. To my knowledge, there isn't another place in the world with this much attention given to permitting natural gas emission points.

I share the outline of our aggressive program for two reasons. First, we believe that the area designations should be based on the technical information painstakingly developed by the DEQ for a unique ozone nonattainment problem. If the EPA uses standard analytic tools appropriate for summertime ozone formation in large metropolitan areas, EPA will reach the wrong conclusions about what causes ozone in Sublette County and how to fix it.

Secondly, I understand that a nonattainment designation includes requirements to reduce air pollution from existing sources. Many local gas producers, working in cooperation with our DEQ, have aggressively reduced air emissions and those reductions will continue even as our natural gas resources continue to be developed. These air emission reductions have occurred



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because of the application of Wyoming's stringent air pollution permitting requirements; because of industry response to our calls for voluntary emission reductions; and because of Wyoming's insistence on stringent air pollution mitigation requirements in the Jonah Infill and Pinedale Anticline Records of Decision. We have not waited for the federal declaration of nonattainment to solve our air pollution problems, and I do not want a nonattainment designation by EPA to penalize the State for instituting early emission reductions.

While we have submitted recommendations as required under the Act, I envision that much work remains. I would like to propose that my staff at DEQ work with US EPA Region 8 to formalize an approach to share technical information and consult over choices of the baseline EI, the size of the nonattainment area and the resulting classification. Should you have any questions or concerns regarding this matter, please contact Mr. John Corra (307-777-7192) or Mr. Dave Finley (307-777-3746).

Best regards,



Dave Freudenthal  
Governor

Enclosures: Attachment 1 - Designation Areas  
Attachment 2 - Boundary of Designation Area (Figure)  
Attachment 3 - Ozone Monitoring Data

cc: John Corra, DEQ Director  
David Finley, AQD Administrator  
Lori Bocchino, AQD  
Christine Anderson, AQD  
Callie Videtich, Director, Air and Radiation Program, EPA Region 8 w/ Enclosures  
Monica Morales, EPA Region 8 w/ Enclosures  
Kerri Fiedler, EPA Region 8 w/ Enclosures

**Attachment 1**

2008 Primary and Secondary NAAQS 8-hour Primary and Secondary Ozone Standard  
Wyoming Recommendations for Ozone Designations  
For areas not under the jurisdiction of Tribal Authority

Region	8-hour Ozone Designation
Casper, WY: Natrona County (part)..... The portion within the City of Casper	Attainment/Unclassifiable
Cheyenne, WY: Laramie County (part) ..... The portion within the City of Cheyenne	Attainment/Unclassifiable
Evanston, WY: Uinta County (part)..... The portion within the City of Evanston	Attainment/Unclassifiable
Gillette, WY: Campbell County (part) ..... The portion within the City of Gillette	Attainment/Unclassifiable
Jackson, WY: Teton County (part) ..... The portion within the City of Jackson	Attainment/Unclassifiable
Lander, WY: Fremont County (part) ..... The portion within the City of Lander	Attainment/Unclassifiable
Laramie, WY: Albany County (part)..... The portion within the City of Laramie	Attainment/Unclassifiable
Riverton, WY: Fremont County (part) ..... The portion within the City of Riverton	Attainment/Unclassifiable
Rock Springs, WY Sweetwater County (part) ..... The portion within the City of Rock Springs	Attainment/Unclassifiable
Sheridan, WY Sheridan County (part) ..... The portion within the City of Sheridan	Attainment/Unclassifiable
Albany County (remainder)	Attainment/Unclassifiable
Big Horn County	Attainment/Unclassifiable
Campbell County (remainder)	Attainment/Unclassifiable
Carbon County	Attainment/Unclassifiable
Converse County	Attainment/Unclassifiable
Crook County	Attainment/Unclassifiable
Fremont County (remainder)	Attainment/Unclassifiable
Goshen County	Attainment/Unclassifiable
Hot Springs County	Attainment/Unclassifiable
Johnson County	Attainment/Unclassifiable
Laramie County (remainder)	Attainment/Unclassifiable
Lincoln County (remainder)	Attainment/Unclassifiable
Natrona County (remainder)	Attainment/Unclassifiable
Niobrara County	Attainment/Unclassifiable
Park County	Attainment/Unclassifiable
Platte County	Attainment/Unclassifiable
Sheridan County (remainder)	Attainment/Unclassifiable
Sweetwater County (remainder)	Attainment/Unclassifiable
Teton County (remainder)	Attainment/Unclassifiable
Uinta County (remainder)	Attainment/Unclassifiable



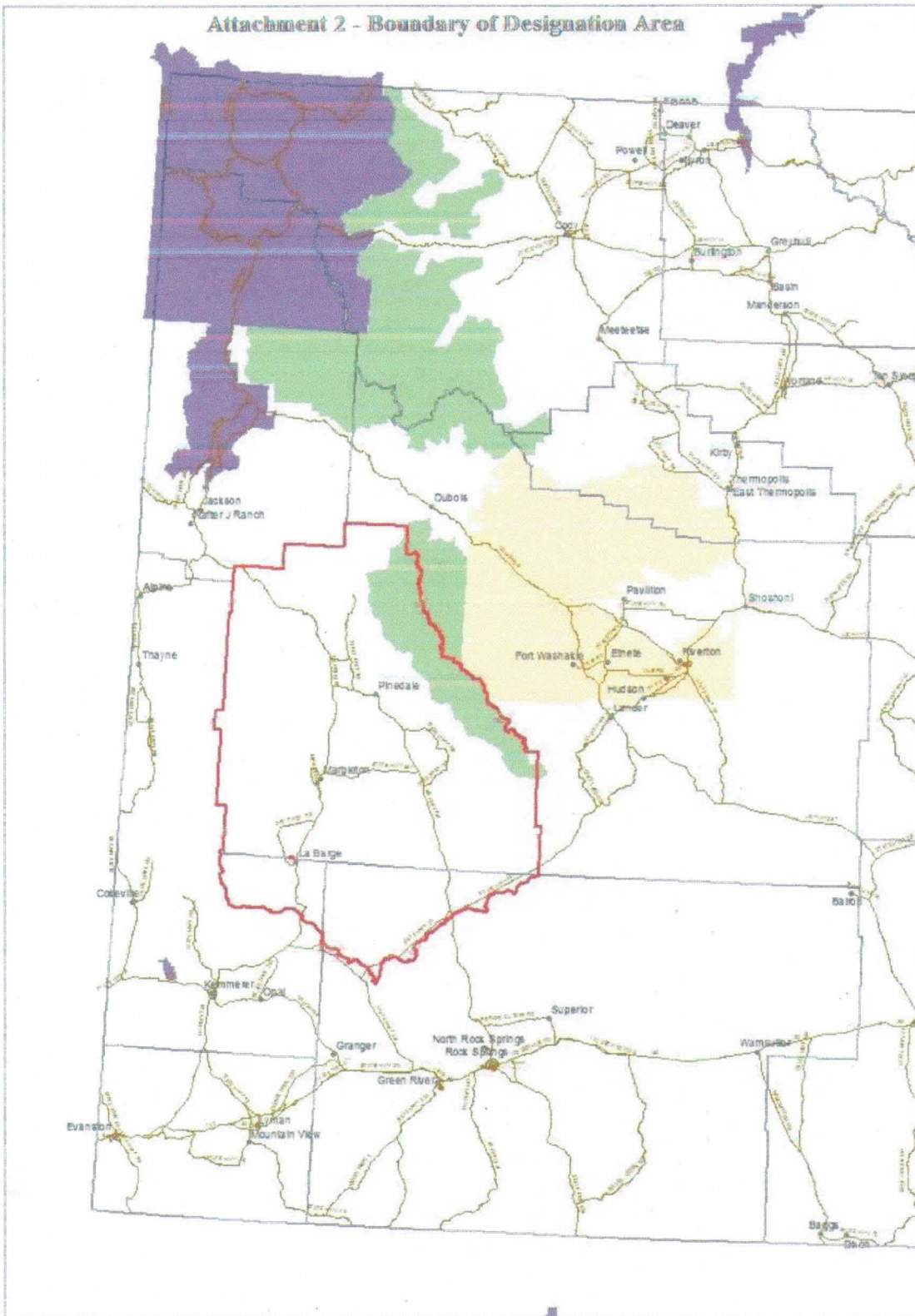
**Attachment 1**

2008 Primary and Secondary NAAQS 8-hour Primary and Secondary Ozone Standard  
 Wyoming Recommendations for Ozone Designations  
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Region	8-hour Ozone Designation
Washakie County	Attainment/Unclassifiable
Weston County	Attainment/Unclassifiable
<p>Upper Green River Basin Area:</p> <p>Sublette County: (all)</p> <p>Lincoln County: (part) The area of the county north and east of the boundary defined by a line starting at the point defined by the intersection of the southwest corner Section 30 Range (R) 115 West Township (T) 27N and the northwest corner of Section 31 R 115 West T 27N of Sublette County at Sublette County's border with Lincoln County. From this point the boundary moves to the west 500 feet to the Aspen Creek. The boundary follows the centerline of Aspen Creek downstream to the confluence of Aspen Creek and Fontenelle Creek (in R 116 W T26N, Section 1). From this point the boundary moves generally to the south along the centerline of Fontenelle Creek to the confluence of Fontenelle Creek and Roney Creek (in R115W T24N Section 6). From the confluence, the boundary moves generally to the east along the centerline of Fontenelle Creek and into the Fontenelle Reservoir (in R112W T24N Section 6). The boundary moves east southeast along the centerline of the Fontenelle Reservoir and then toward the south along the centerline of the Green River to where the Green River in R111W T24 N Section 31 crosses into Sweetwater County.</p> <p>Sweetwater County: (part) The area of the county west and north of the boundary which begins at the midpoint of the Green River, where the Green River enters Sweetwater County from Lincoln County in R111W T24N Section 31. From this point, the boundary follows the center of the channel of the Green River generally to the south and east to the confluence of the Green River and the Big Sandy River (in R109W R22 N Section 28). From this point, the boundary moves generally north and east along the centerline of the Big Sandy River to the confluence of the Big Sandy River with Little Sandy Creek (in R106W T25N Section 33). The boundary continues generally toward the northeast long the centerline of Little Sandy Creek to the confluence of Little Sandy Creek and Pacific Creek (in R106W T25N Section 24). From this point, the boundary moves generally to the east and north along the centerline of Pacific Creek to the confluence of Pacific Creek and Whitehorse Creek (in R103W T26N Section 10). From this point the boundary follows the centerline of Whitehorse Creek generally to the northeast until it reaches the eastern boundary of Section 1 R103W T 26North. From the point where Whitehorse Creek crosses the eastern section line of Section 1 R103W T 26North, the boundary moves straight north along the section line to the southeast corner of Section 36 R103W T27N in Sublette County where the boundary ends.</p>	<p align="center">Non-attainment</p>

R - Range, T - Township, N - North, W - West

**Attachment 2 - Boundary of Designation Area**



**Legend**

- Proposed Nonattainment Boundary
- Wind River Indian Reservation
- Forest Service Class I Area
- National Parks Class I Area
- Highway
- County Boundary



Recommended Nonattainment Boundary  
 March 2009  
 Wyoming Department of Environmental Quality  
 Air Quality Division



**Attachment 3**

<b>Design Values for Wyoming Ambient Ozone Monitors</b>							
Site Name	AQS ID	Year				3-Year Average 2005-2007 (ppm)	3-Year Average 2006-2008 <sup>1</sup> (ppm)
		2005 (ppm)	2006 (ppm)	2007 (ppm)	2008 Q1-Q3 <sup>1</sup> (ppm)		
Daniel South	56-035-0100	0.067 <sup>2</sup>	0.075	0.067	0.074	N/A	0.072 <sup>1</sup>
Boulder	56-035-0099	0.080 <sup>3</sup>	0.073	0.067	0.101	0.073 <sup>3</sup>	0.080 <sup>1</sup>
Jonah	56-035-0098	0.076	0.070	0.069	0.082	0.072	0.074 <sup>1</sup>
Yellowstone (NPS)	56-039-1011	0.060	0.069	0.064	0.065	0.064	0.066 <sup>1</sup>
Thunder Basin	56-005-0123	0.063	0.072	0.072	0.074	0.069	0.073 <sup>1</sup>
Campbell County	56-005-0456	0.063 <sup>4</sup>	0.065	0.072	0.060	0.067 <sup>4</sup>	0.066 <sup>1</sup>
<sup>1</sup> Data collected and validated through 3 <sup>rd</sup> quarter 2008 <sup>2</sup> Incomplete year; began operation in July 2005 <sup>3</sup> Incomplete year; began operation in February 2005 <sup>4</sup> One quarter with less than 75% data completeness							

<b>4<sup>th</sup> Maximum 8-Hour Ozone Values for Ambient Monitors without 3 years of data</b>					
Site Name	AQS ID	Year			
		2005 (ppm)	2006 (ppm)	2007 (ppm)	2008 Q1-Q3 <sup>1</sup> (ppm)
Murphy Ridge	56-041-0101	---	---	0.070	0.061
South Pass	56-013-0099	---	---	0.071 <sup>2</sup>	0.065
OCI <sup>3</sup>	56-037-0898	---	0.071 <sup>3</sup>	0.066	0.072
Wamsutter	56-005-0123	---	0.067 <sup>4</sup>	0.064	0.064
Atlantic Rim	56-007-0099	---	---	0.047 <sup>5</sup>	0.064
<sup>1</sup> Data collected and validated through 3 <sup>rd</sup> quarter 2008 <sup>2</sup> Incomplete year; began operation in March 2007 <sup>3</sup> Site operated by industry. Incomplete year; began operation in May 2006 <sup>4</sup> Incomplete year; began operation in March 2006 <sup>5</sup> Incomplete year; began operation in October 2007					